Oracle Warehouse Management Cloud

Online Help

Release 26D

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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 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.

Share Your Feedback

We welcome your feedback about Oracle Warehouse Managment. If you need clarification, or find an error, you can direct your questions via a service request to *My Oracle Support.*

1 WMS Application Overview

Application Overview

The Cloud WMS Application is a part of the SCM suite of applications in Oracle. It is a cloud native, multi-tenant software-as-a-service (SaaS) product offering. Cloud WMS helps in automating warehouses across different vertical industries of varying complexities of Level-1 to Level-5 warehouses, as per the Gartner classification of warehouse automation levels. Cloud WMS is a highly configurable application that supports and allows real-time data capture, inquiry, visibility into warehouse execution and operations, including automation.

The application supports a wide variety of international languages; it also provides the ability to configure and operate in local time zones where the Warehouse operates. Cloud WMS is a world-class product with a best-of-breed functionality that caters to global pratices for warehousing operations. In the next few sections, we'll cover some fundamental concepts within this application before moving into detailed configuration and functionality.

Parent Child Company Hierarchy

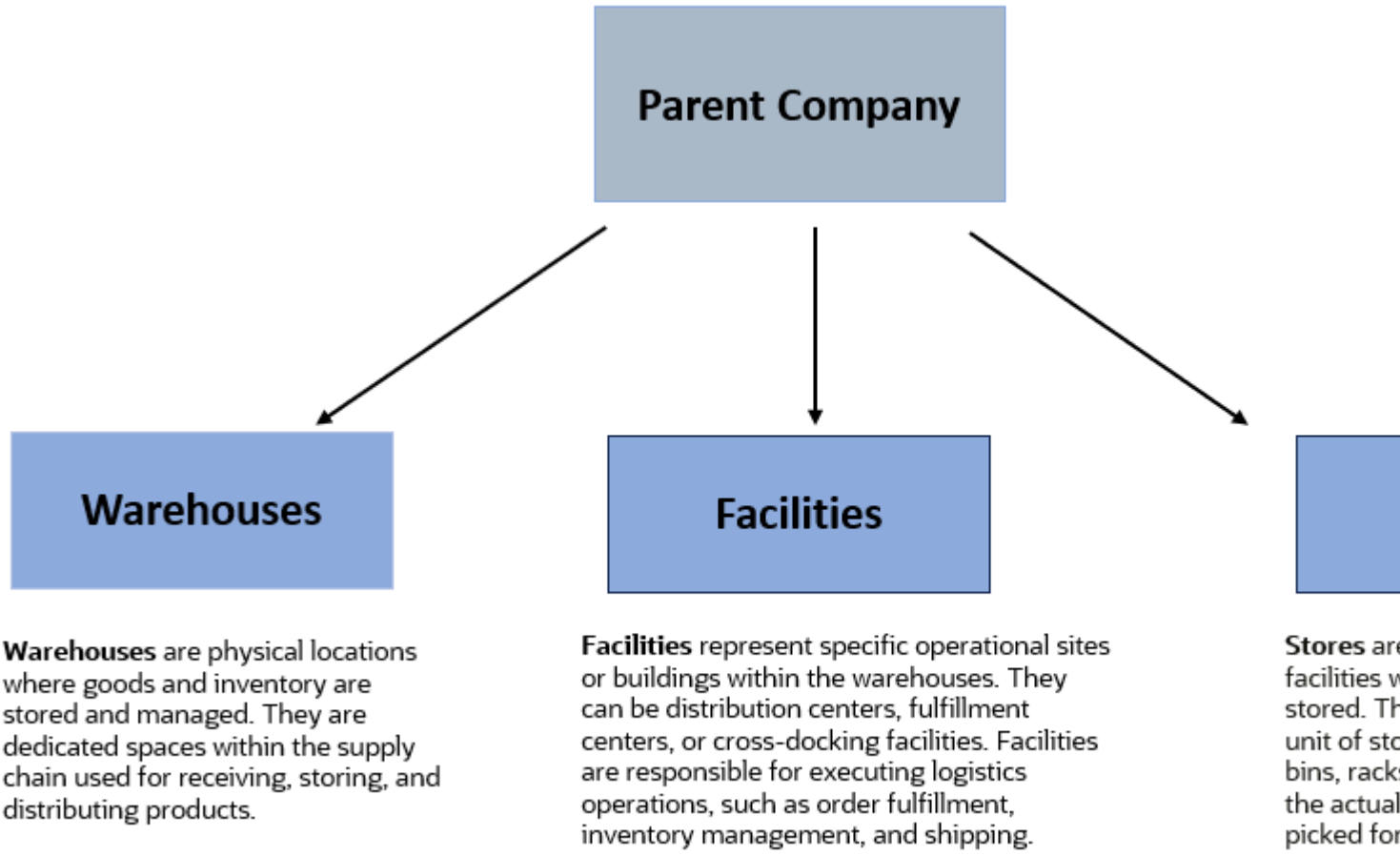
A parent company is typically defined as the Business Entity that is owning the business. This business could operate in the following ways which can be modeled in WMS.

a) A Typical business which owns/leases and runs multiple Warehouses where the business's inventory is stored and distributed.

b) A logistics service provide (LSP) or also commonly referred to as 3PL (3rd Party Logistics) service provider. In this case the parent company or business owns a number of warehouses and operates them to provides services to other companies/businesses who want to store, manage and distribute their inventory.

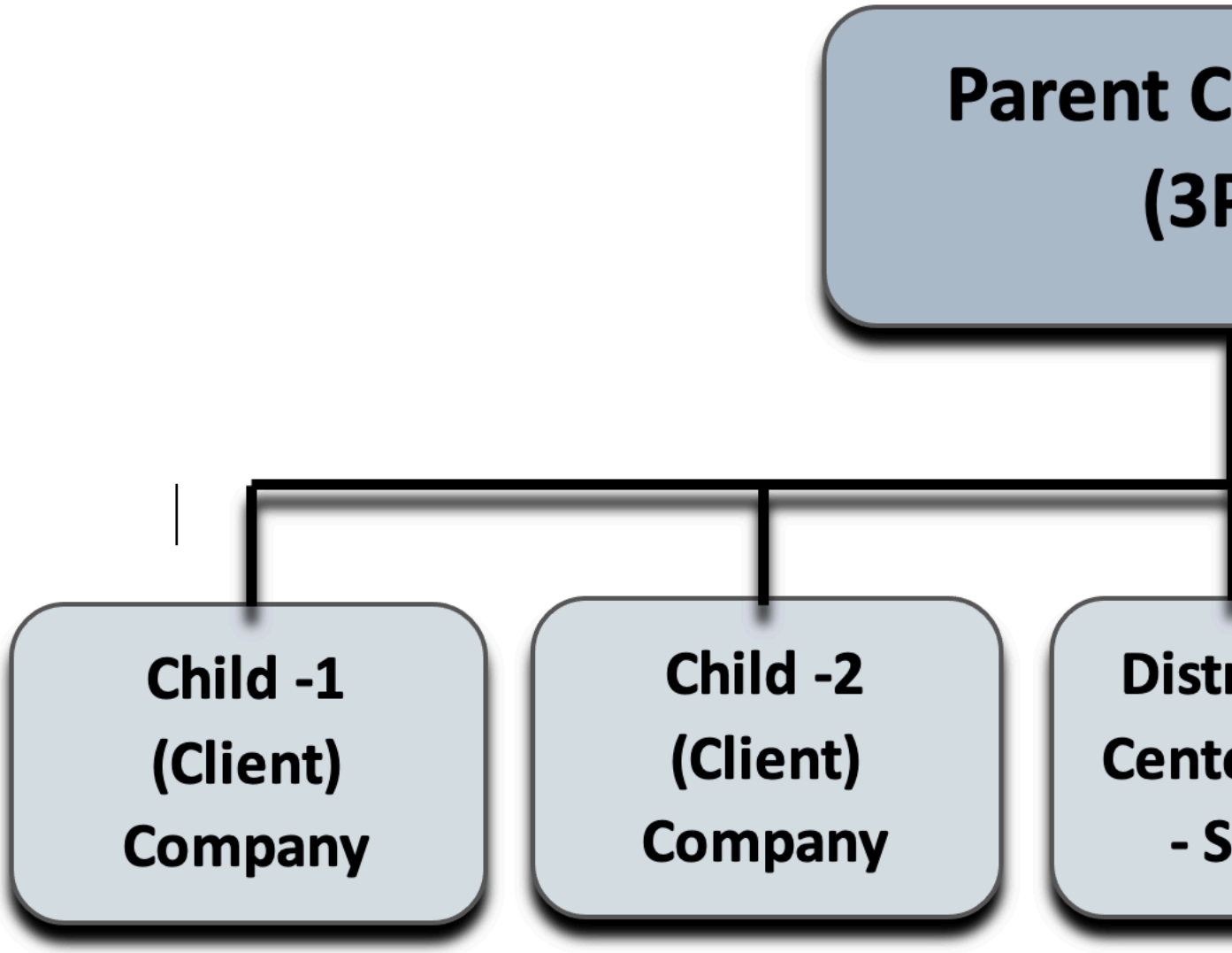
Parent Company

The following diagram shows the structure for a Parent Company:



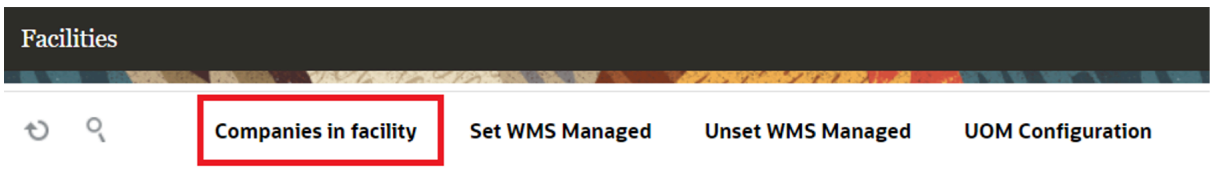
3PL Parent Company

The following diagram shows the structure for a 3PL Parent Company:



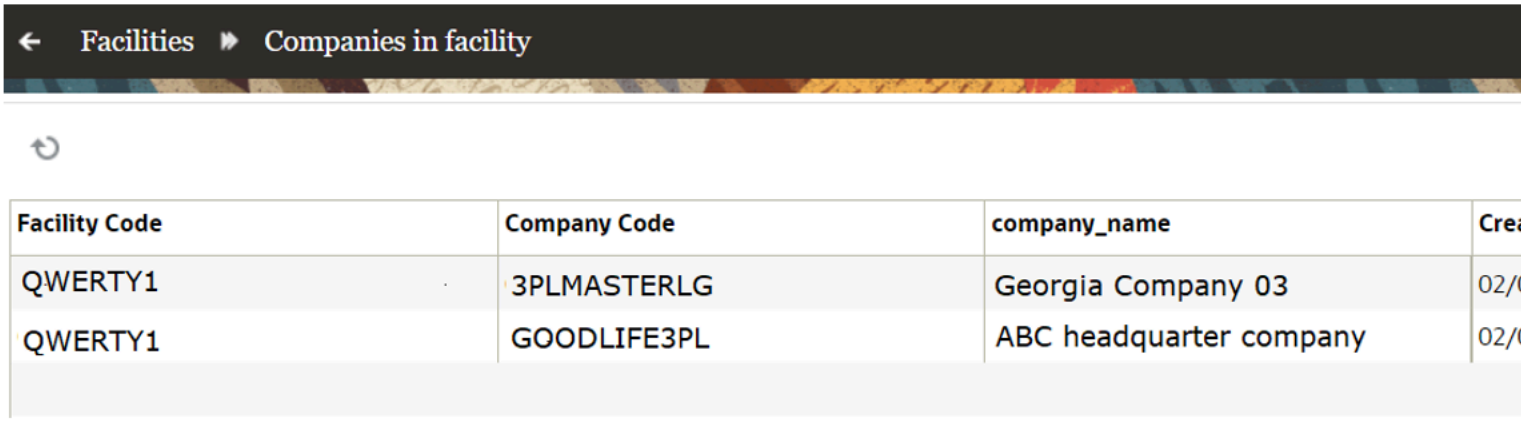
Note: Only a single level of company hierarchy is supported.

Depending on the number of customers 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 the 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.



Internationalization

Message UI

'Messages' are Warehouse Management System Messages that are displayed on Mobile during operations and that appear on the Warehouse Management System UI. These messages include informational messages such as messages for Inventory being received or picked, as well as error messages that prevent some operations. These messages can be modified and worded differently, and they can also be disabled if required.

You can modify short and long messages in bulk using the modified/edited xls file into the UI system using the new message input interface. The system supports three types of file formats namely XML, XLS and PSV through the input interface screen and only the XML format via Init Stage interface API.

Message Configuration

Task Description	WMS Modul	Overview/Comments	Task Details
Messages Setup	Messages	**Note:** There is no terminology (literals) inheritance from parent to child company.	1. Login at the specific company level. 2. In the **Messages** UI, click on the Search Icon to look for a message. 3. In the 'Text' field enter part of the message that needs to be changed and click 'Search'- OR display all messages with the 'Refresh' icon. 4. Select the specific message from the results and under the 'Edit Message' Section, enter the new message.

Task Description	WMS Modul	Overview/Comments	Task Details
			5. Under the **Edit Facility Message Config**, check/uncheck the **Enabled** flag to disable/enable a message. Optionally, you can also check/uncheck the **Auto-Reject** flag to put a 'stopper' (disable further process), for the messages which can be processed further with other valid options. If the **Auto-Reject Flag** is set to no, then the message is treated as a warning. You can override the warning to proceed further. 6. Click **Save** for the changes.

Note: For the supported language and valid field values, please refer to the Interface Specifications document. 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**.

Literals UI

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

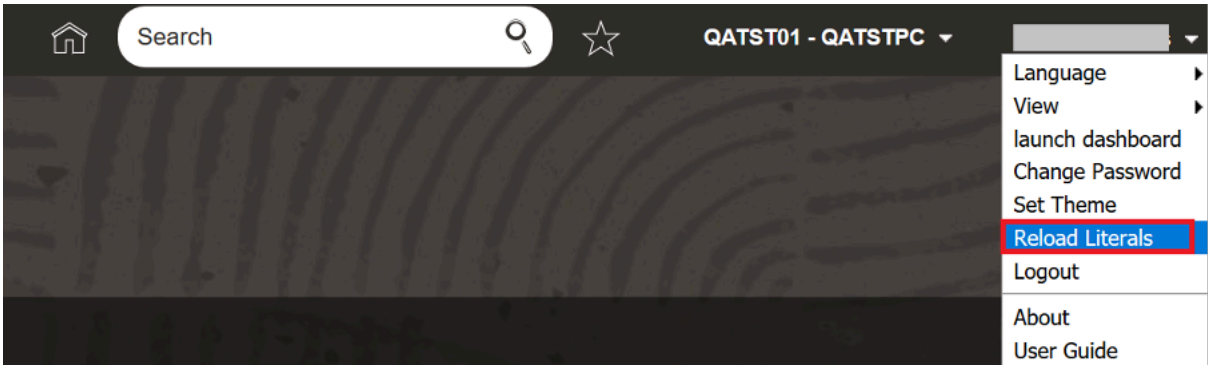
For example: In the item master, item parts (part_b tp part_f) can be used as item characteristics such as color, size, etc.. These fields can be renamed appropriately to reflect what they represent for you.

Note: You can also use the **Init Stage Interface** API to insert data into stage tables and run the interface to process Literals data. See the Integration API Guide for more details. To access the latest Integration API Guide, 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**.

You can also define literals by company. In some 3PL scenarios. each underlying company can have different literals.

For example: company-1 inventory attribute_a could refer to country of origin and company-2 might refer to product color or temperature. When users change the company via the Web UI, the respective literals for the relevant company will now be loaded.

In the company edit pane UI, flag "Reload Literals upon Changing Company" helps you enable reloading of the literals upon changing the company in 3PL scenario. If you have different literals configured by company then enable the flag. A manual option to reload the literals is also available in the settings menu associated with the user.



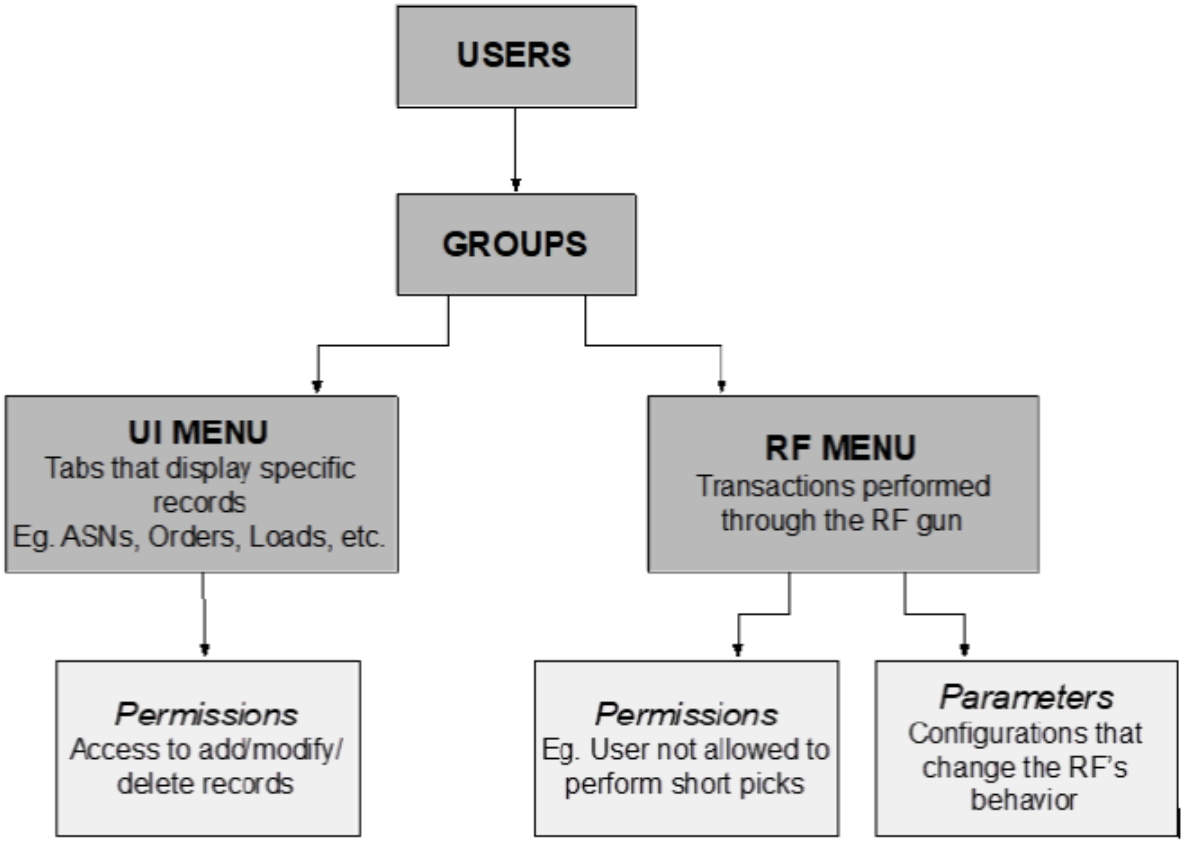
Note: After switching companies, literals from current company shows up in the UI if either the from/to company has Reload Literals upon Changing Company set to “yes”.

Note: You should log out of the session for the Reload Literals upon Changing Company flag to take affect if the flag is modified during an active session.

Task Description	WMS Module	Overview/Comments	Task Details
Literals Setup	Literals	**Note:** There is no terminology (literals) inheritance from parent to child company.	1. Login at the specific company level. 2. From the **Literals** UI, click on the **Search** Icon to look for a field name. 3. In the **Literal** field enter the field name that needs to be changed (ex: part for all the item parts) and click on **Search.** 4. Select the specific literal from the results and under the 'Edit Literal' section, enter the new field name in the field 'Text'. 5. Click **Save** for the changes to take effect. 6. Users will have to log out and log back in to see the changes in effect.

User Menu Configuration

Users in Oracle Warehouse Management are organized as follows:



Users, Groups, and Menus (UI and Screen)

Cloud WMS users have to belong to atleast one group. A user can belong to one or many groups but while logging on, they can only have one default group. If the user belongs to multiple groups, they can change to their required group from the login UI drop-down. Every user within a group will share the same UI, Mobile and VBCS menus.

Permissions can be set at group level in order to control access to the screens within each of the respective menus/ menu type. Permissions are available for various actions within a screen. You can also restrict access to a particular screen by not adding that particular screen to the respective menu.

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:

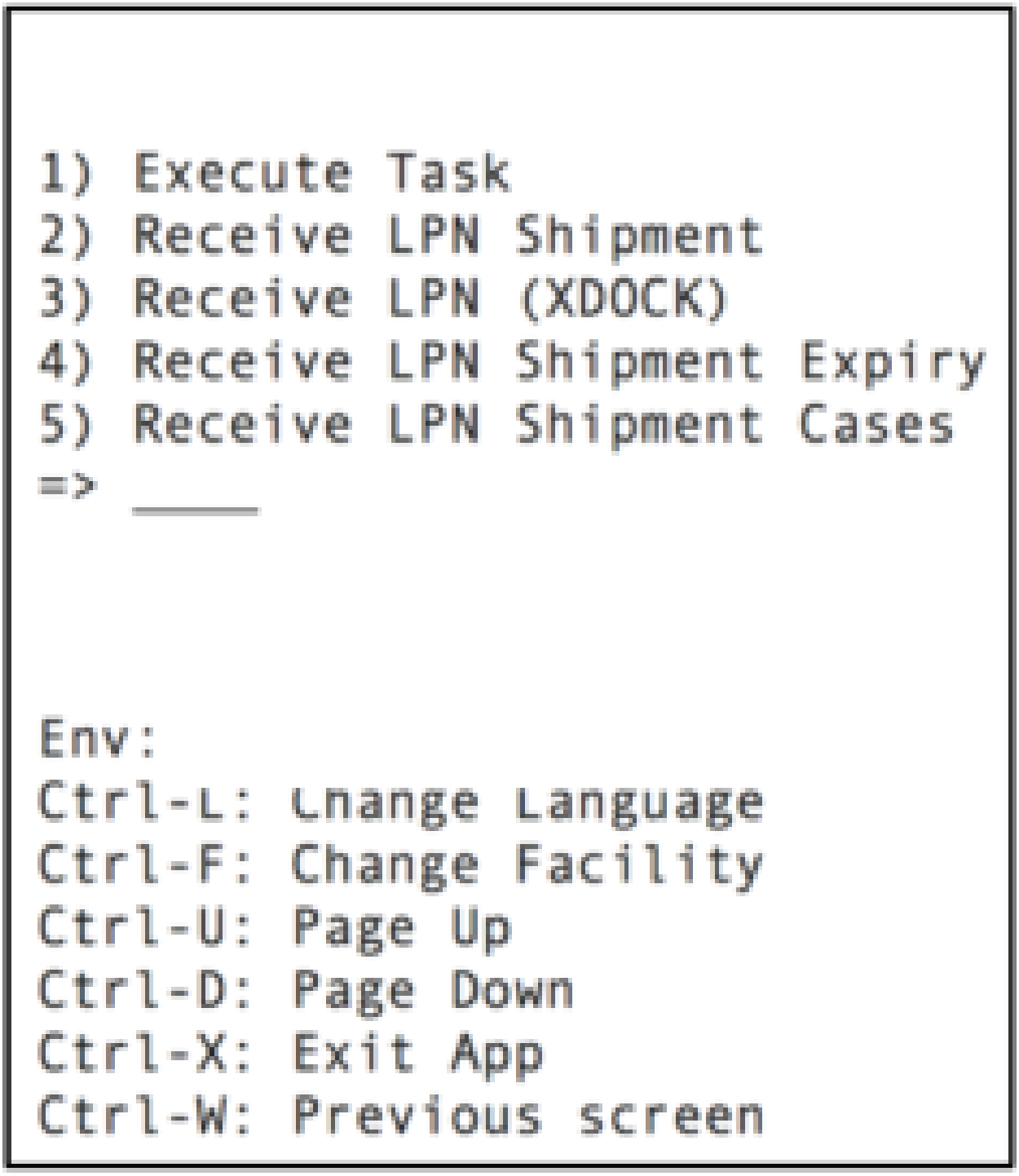
Screen Configuration

Generate Screens Add to Current Group Menu

Screen Type	Module	Screen Name
UI-HTML	UI-HTML: AI/ML Training Date Rule Hdr	AI/ML Training Date Rule Hdr (1)
UI-HTML	UI-HTML: {oblpn}s	AJ OB LPN Inquiry
UI-HTML	UI-HTML: OB Loads	OB Loads (9)
UI-HTML	UI-HTML: Productivity by Process_OBSOLETE (wfm)	Productivity by Process_OBSOLETE (3)
UI-HTML	UI-HTML: Work Areas_OBSOLETE_OBSOLETE	Work Areas_OBSOLETE_OBSOLETE (8)
UI-HTML	UI-HTML: Daily Production Report - wfm_OBSOLETE	Daily Production Report - wfm_OBSOLETE (3)
UI-HTML	UI-HTML: Daily Report - wfm	Daily Report - wfm (2)
UI-HTML	UI-HTML: A B C Costing Report - wfm	A B C Costing Report - wfm (2)

What is an Mobile menu?

All supported transactions that are made using the Mobile on the warehouse floor aredisplayed using its appropriate Mobile menu screens. The screens, or modules, perform processes such as Receiving, Putaway, Picking, and Loading. You can see a screenshot of an Mobile menu in the image below:



When using the Mobile gun, the user must make sure that the Mobile is in the correct facility. You can view the facility at the top right of the Mobile menu:

```
LogFire WMS FACILITY/PAR

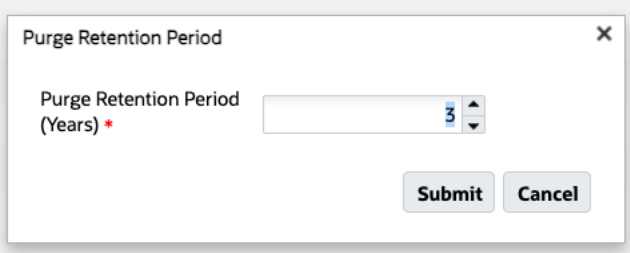
1) Execute Task
2) Receive LPN Shipment
3) Receive LPN (XDOCK)
4) Receive LPN Shipment Expiry
5) Receive LPN Shipment Cases
=> _____
```

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

> **Note:** The Company context is automatically determined by the system when you scan any company or company/facility-specific entity like Inbound Shipment, Purchase Order, Item, Inbound Load, Outbound Load etc. The Company context can not be changed explicitly by the user.

Purge Retention Period

This button to allow administrators to define the duration of the data to be retained in the system before purging. When you click the Purge Retention Period button, you can enter the retention duration in the Purge Retention Period (In Years)* field, which defaults to 3 years and can be adjusted to any value between 1 and 5 years.



The Submit option remains disabled when the field is blank or contains an invalid value and is enabled only after a valid retention period (1–5 years) is entered.

> **Note:** Only the original ADMIN user provisioned during WMS Cloud service activation (who also has access to the RF Device Connection Details - this button displays information on the RF user details) is authorized to submit or update the purge retention period.

On successful submission, the administrator sees the message, “The submitted purge retention period is X years.” If a non-admin attempts to submit, the system displays, “Current purge retention period is X years.”

> **Note:** This configuration applies at the environment level and does not impact any other User UI functionality.

Creating Users

You can create users in the application via “Users” module in the Web UI or by using init_stage API Interface for entity “Users”. For more information, refer to the WMS Interface Specification on MOS.

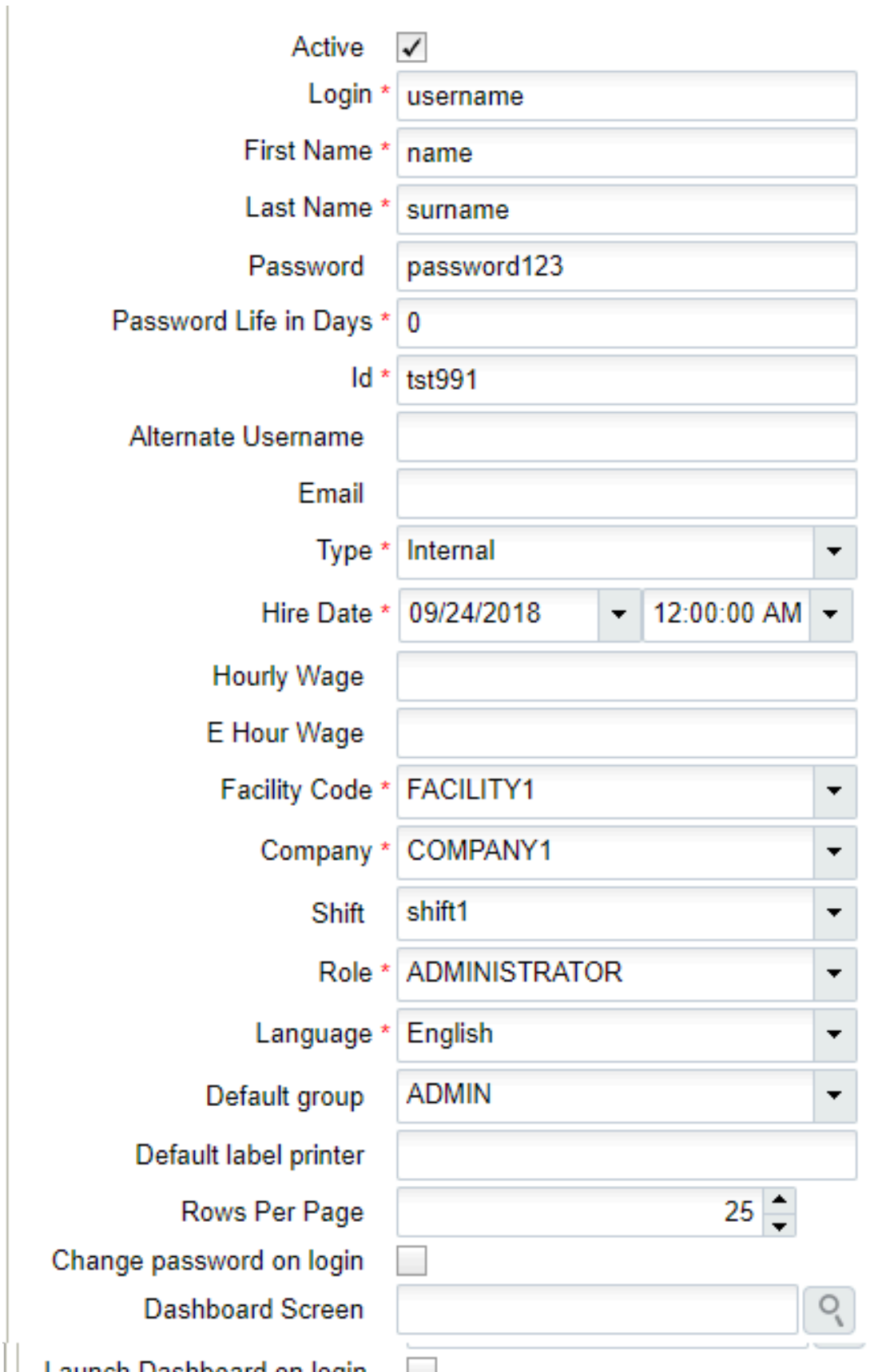
You can define the following profile attributes while creating an Application user:

- 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 Mobile 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

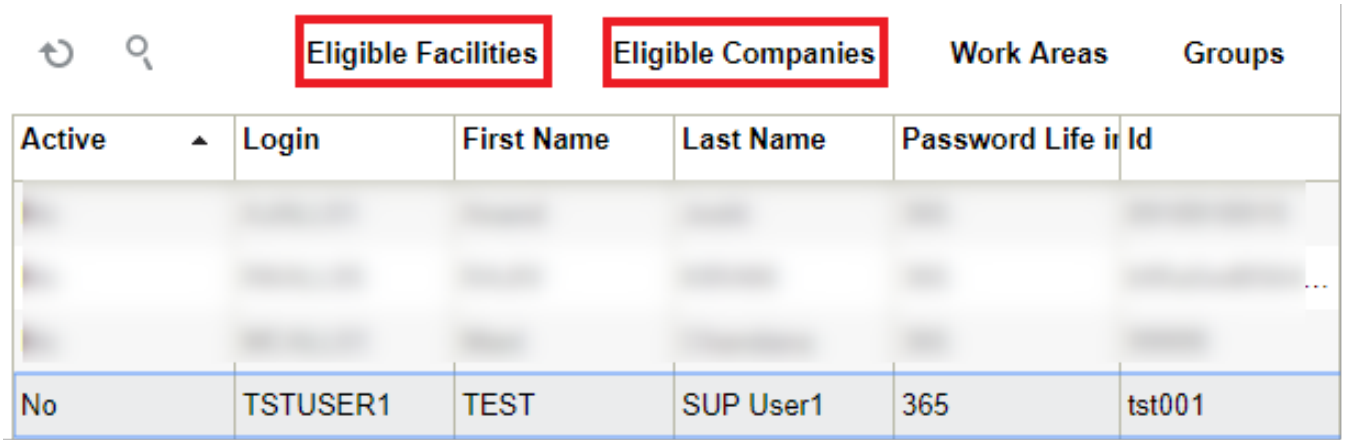
1. Go to the “Users” screen.

2. Click ‘Create’ (+) and populate the necessary fields:


Active
Login *
username
First Name *
name
Last Name *
surname
Password
password123
Password Life in Days *
0
Id *
tst991
Alternate Username
Email
Type *
Internal
Hire Date *
09/24/2018
12:00:00 AM
Hourly Wage
E Hour Wage
Facility Code *
FACILITY1
Company *
COMPANY1
Shift
shift1
Role *
ADMINISTRATOR
Language *
English
Default group
ADMIN
Default label printer
Rows Per Page
25
Change password on login
Dashboard Screen
Launch Dashboard on login
Date Format
Time Format

> **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.



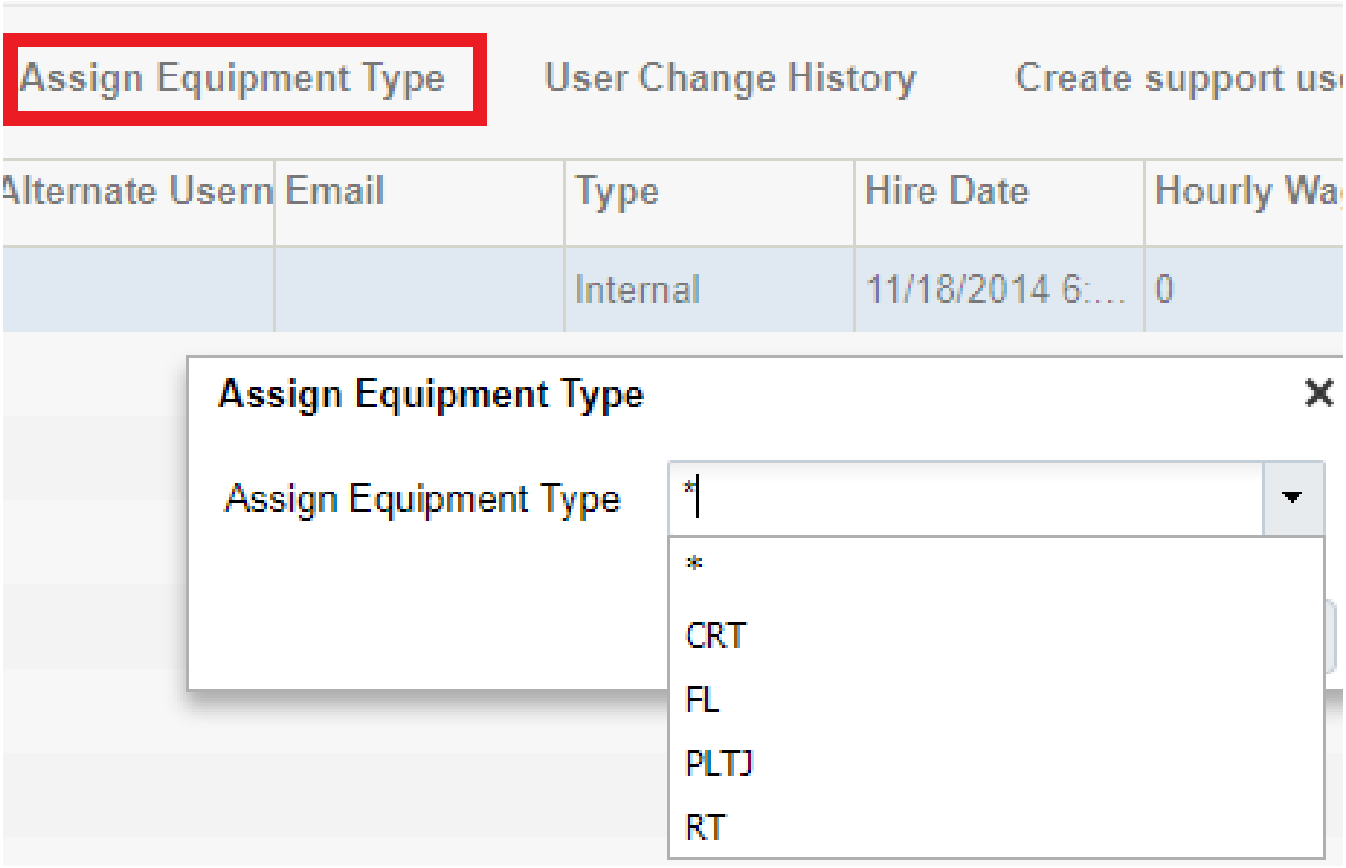
5. This will take you to a new screen displaying all of the records the user currently has access to. Click 'Create' (+) to add new Facilities or Companies:



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

7. To assign Equipment Types 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 Equipment Type ‘*’ indicates any equipment type.



> **Note:** The Assign Equipment type set in user’s profile allows user to execute appropriate tasks.

lgfapi Archive Level

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

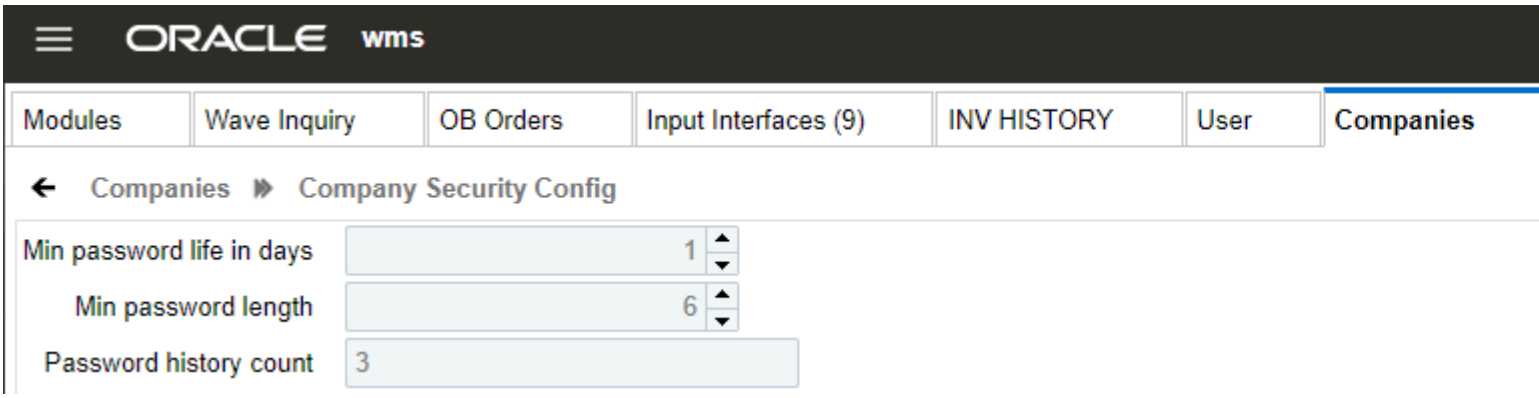
Password Requirements

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

- Password must be at least 8 characters. The password character length can be increased per company by an ADMIN role user but still must be a minimum of 8 characters.
- Password must have at least 3 of the following 4 characters:
  - lowercase
  - uppercase
  - numeric
  - special character
- Password cannot match the username.
- 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.

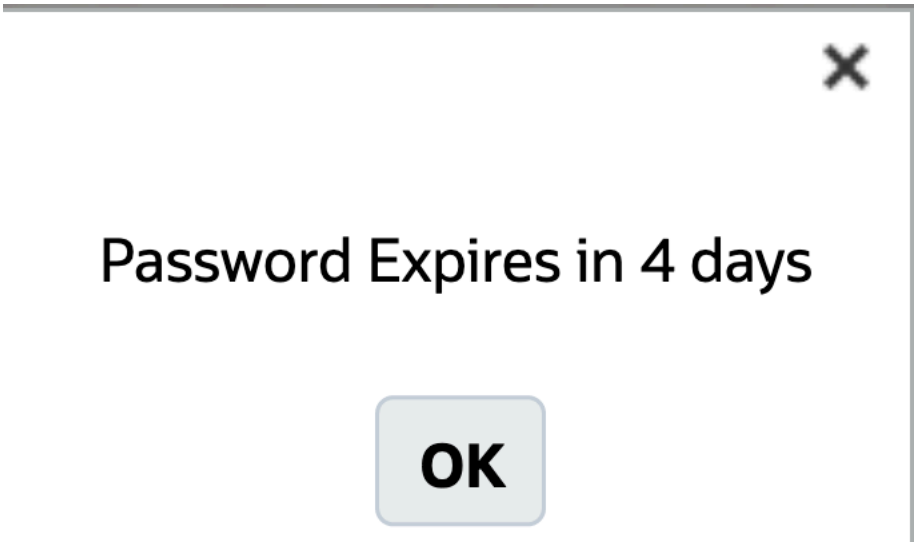
Password Expiration

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.



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.

Transactions That Require Re-Entering SSO Credentials

The following table lists the transactions that require you to re-enter SSO credentials to complete them:

Screens	Transactions
Company	• Decimal settings • Activate/Deactivate Company • UOM Configuration
Facility	• UOM Configuration • Location Coordinates UOM • Decimal settings for location coordinates
Inbound LPN	• End Receiving • Reconcile LPN Quantity
Inbound Shipment	Undo Verify
Inventory History Activity Parameters	• Enable auto process • Disable auto process
Inventory History	Mark unprocessed

Screens	Transactions
Outbound Load	Reset load status
Order Header	Recalculate order status
Input Interface Data	Clear Stage Records
Stage Location Configuration	Reset current value/Reset dynamic staging

Framework Logs UI

You can use Framework Logs to review important WMS activity. You can see what happened, where it happened, when it happened, and who created the log entry. Framework Logs are available under **Audit**. Use this screen to review WMS activity such as CSV exports, print submissions, and related system events.

This UI consist following fields:

1. **Company**: Company linked to the log entry.
2. **Facility**: Facility where the activity happened.
3. **Module**: WMS area that created the log.
4. **Key**: Reference value for the logged activity.
5. **Description**: Message that explains the activity or result.
6. **Create Timestamp**: Date and time when WMS created the log.
7. **Mod Timestamp**: Date and time when WMS last updated the log.
8. **Create User**: User who created the log entry. This column is hidden by default. User needs to explicility add this column to the data grid.

This UI helps you in:

- Search and review Framework Log entries.
- Add or remove grid columns.
- Save your preferred grid view.
- Export log details.
- Include **Create User** in the export.
- View the source screen name in CSV export log descriptions.
- Review print submission messages, such as files submitted for printing or print submission failures.

Creating Support Users

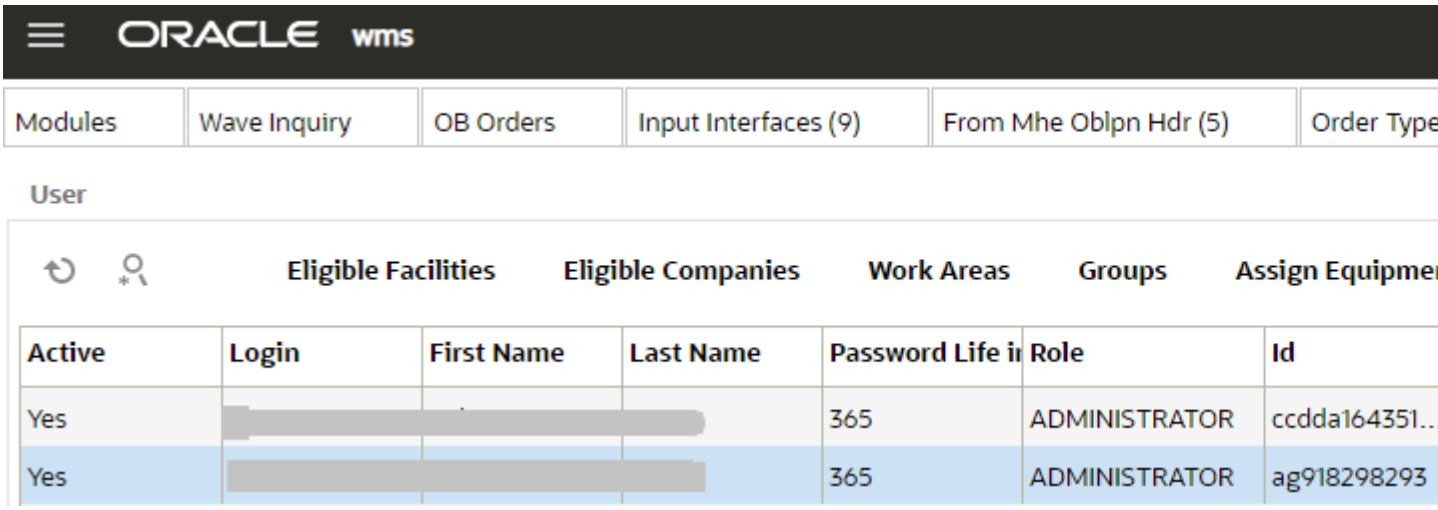
In some instances, you may need to transfer files securely or view log files as the Oracle WMS Cloud (WMS) support team is assisting you with any existing issues. To initiate this process, you will need to create a support user in WMS. Once a customer creates a support user, the **support team** will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

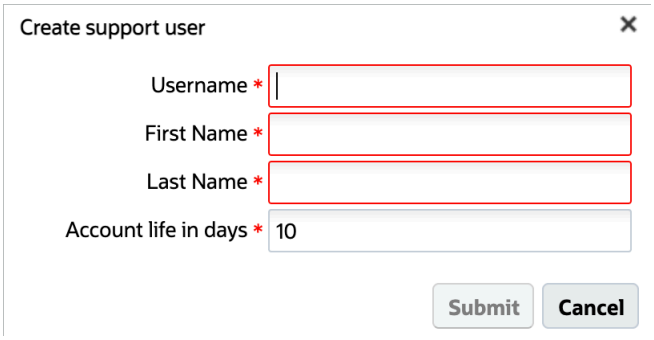
1. From the **Users** screen in WMS, search for any existing user that you want to use as a template to create the support user. For example, if you want Oracle support to investigate a specific issue that was happening to user ABC, select ABC and then create a support user from that.

   > **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.
2. Highlight the user and click **Create Support User.**



3. Populate the username and user details for the support user:



   > **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.

4. Specify the account life in days. (the default is 10 and the maximum is 28 days.)
5. 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.

> **Note:** The WMS UI will remain inactive until Oracle Support activates the user. Additionally, once the account life is exceeded, the user will no longer be active and the active flag is not updated by the system.

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:

Four Steps to Add 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

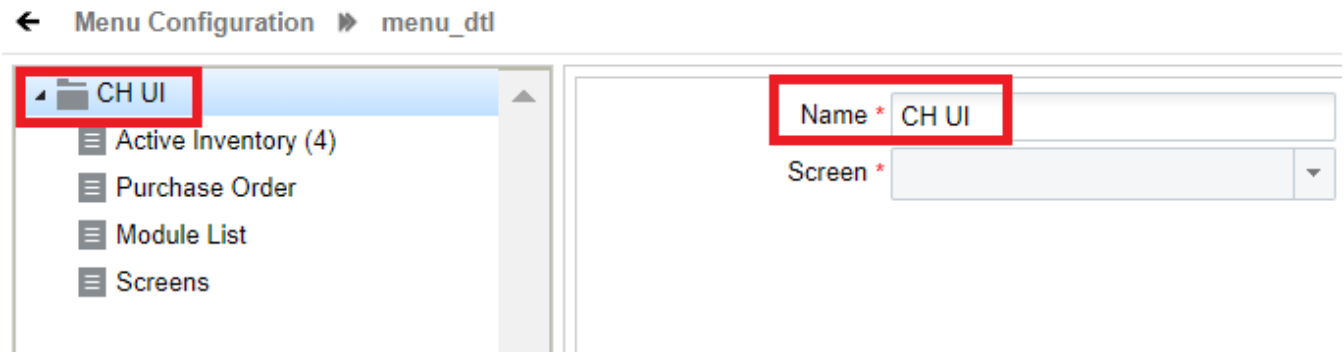
1. Go to the "Screens" UI screen.
2. Click "Generate Screens".
3. Select all the necessary modules. Click "**Save**

   This generates the screens with same name as the module name. You can change the name of these screen as required and also set the required screen parameter for appropriate functionality to be enabled.
4. To add these screens to the Group, click "Add to current group Menu". When this action is performed, the screens selected based on the type of the screen gets added to the appropriate Menu type like Mobile, UI, VBCS etc. for users associated to the default group.

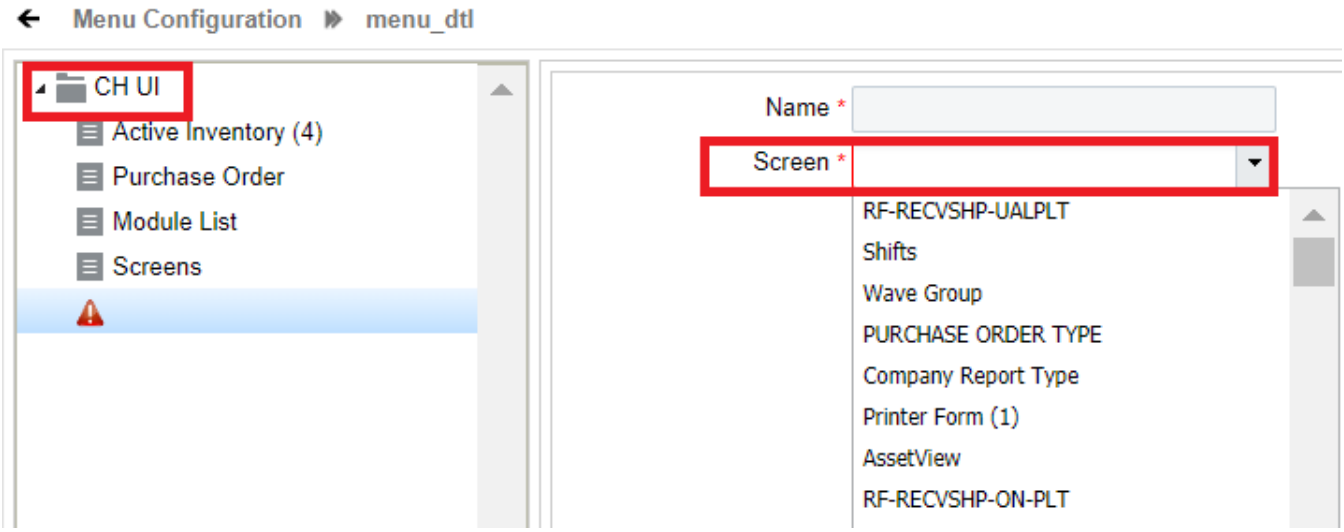
   > **Note:** For Mobile menus, for Mobile menus, extra configuration might be required (Mobile module parameters). To modify its parameters, select the Mobile screen and click on the Details button.

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 Mobile).
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”.

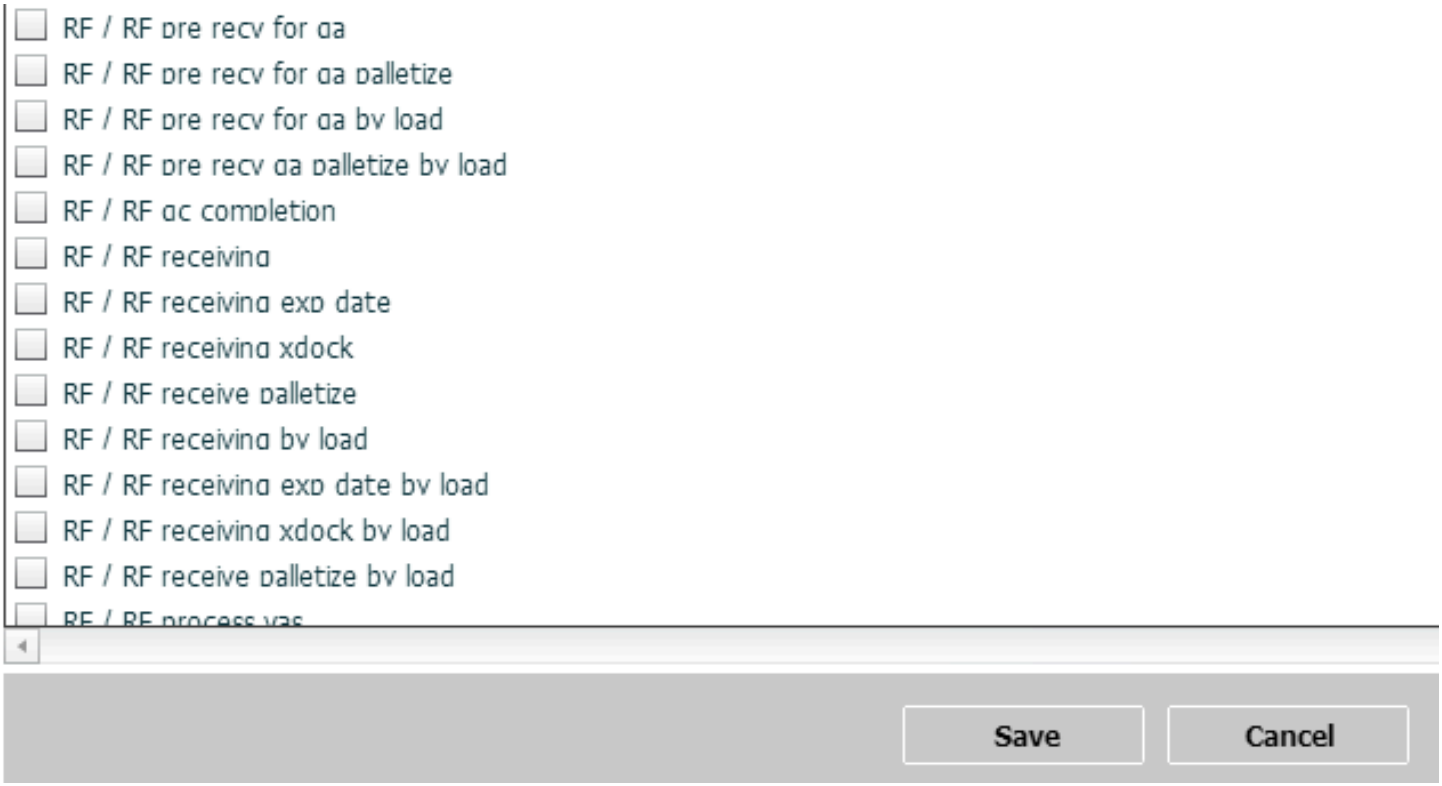
Note: For Mobile menus, extra configuration might be required (Mobile module parameters). To modify its parameters, select the Mobile screen and click on the Details button.

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/Mobile 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.



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.

Expedite Orders at Risk Using Digital Assistant (ODA)

You can now identify, prioritize, and expedite an order(s) in the Mobile App with the help of our Oracle WMS Digital Assistance (ODA). You can simply post your query in the chat bot window or use voice assistance.

You need to meet the following pre-requisites to configure the Oracle Digital Assistant:

1. ODA must be enabled on your Oracle Cloud Infrastructure (OCI) tenancy.
2. Visit the OCI Object Storage *download* page to download the OCI Object Storage.
3. Select the "Orders at Risk" and "Prioritize Tasks" skills and import them to your ODA instance.
4. Create an ODA Channel pointing to the imported "Orders at Risk" and "Prioritize Tasks" skills.
5. Click to enable the toggle button for **Client Authentication Enabled.**

WMS Integration

To integrate ODA with WMS, go to the SAAS App Configuration screen:

1. From the ODA Channel, collect the following information:
   a. URI: This will be the URL of your ODA "up to the .com".

      Example: https://oda-6af6554865894b6bbefe05d6eadd92c1-da2.data.digitalassistant.oci.oraclecloud.com/
   b. Channel ID
   c. Secret Key: Click the **Copy** link next to the Secret Key field in your ODA channel.In WMS, from the **SAAS App Config** screen, create an **ODA_CHANNEL**.
2. In WMS, from the **SAAS App Config** screen, create an **ODA_CHANNEL**.
   a. Input the appropriate Company and Facility fields. They are required fields.
   b. **Base URL** takes the **URI** from the ODA Channel.
   c. **App parm3** takes the **Channel ID** from the ODA Channel.
   d. **App parm4** takes the **Secret Key** from the ODA Channel.Now, to enable the ODA, go to the Groups screen.
3. Now, to enable the ODA, go to the Groups screen.
4. Here, scroll to select and add the group permission "SaasAppConfig / Access ODA" for the user.

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.

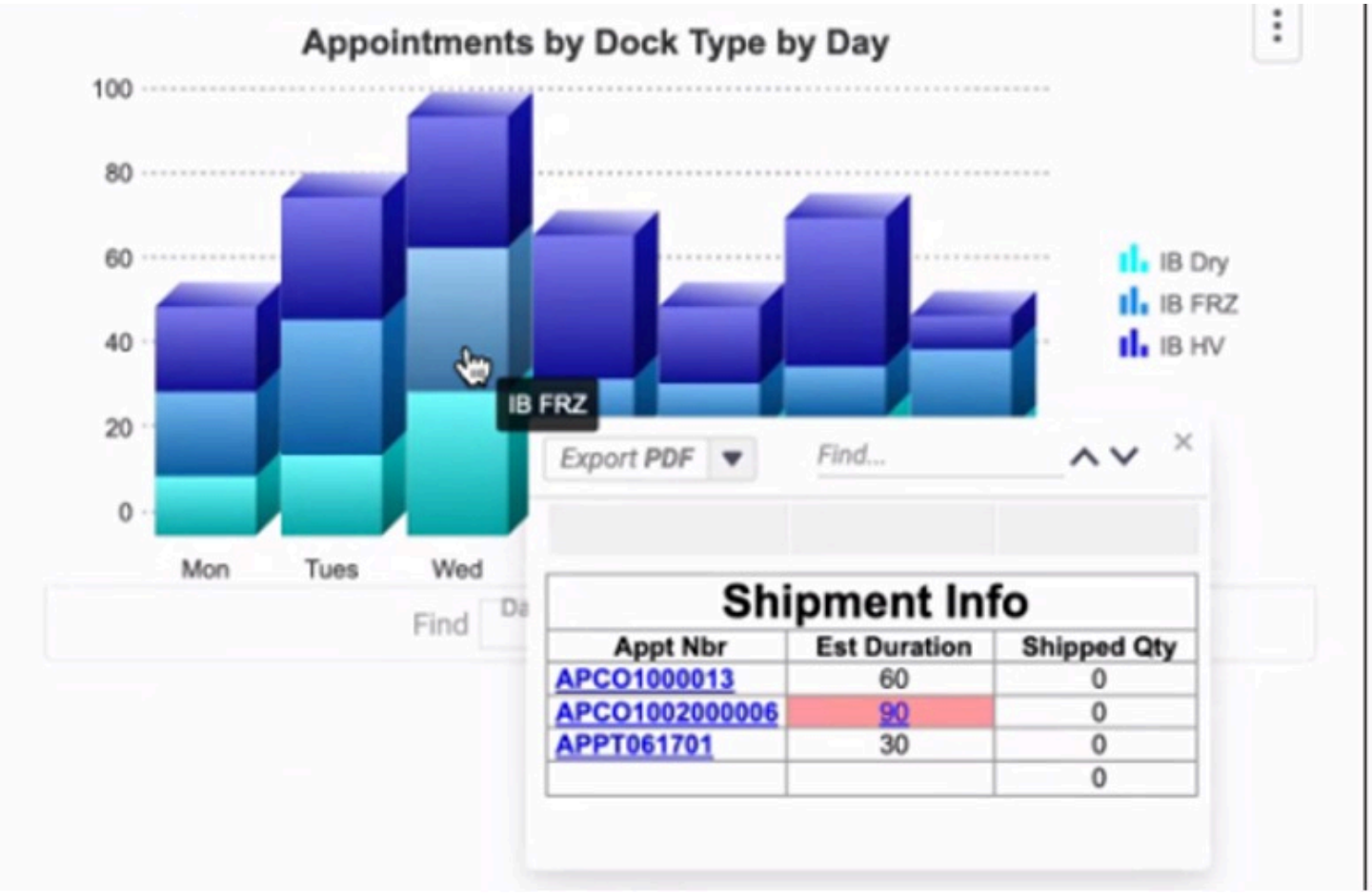
UI Available for Deep Linking

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".

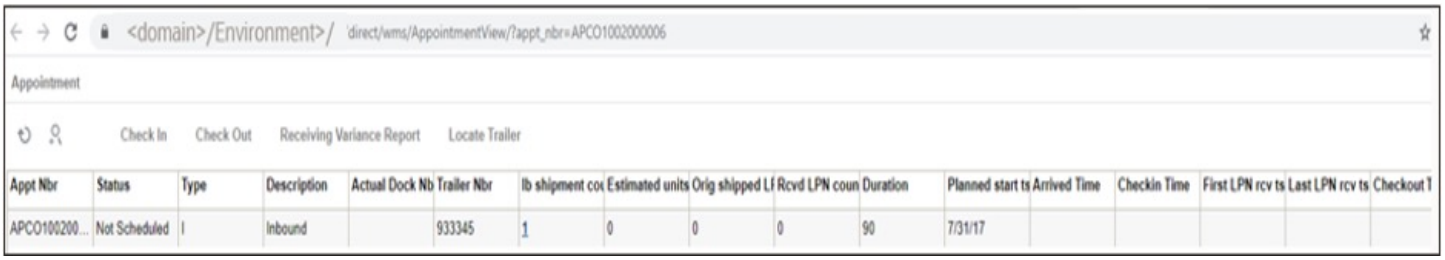
Creating Deep Links using Web Reports

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.



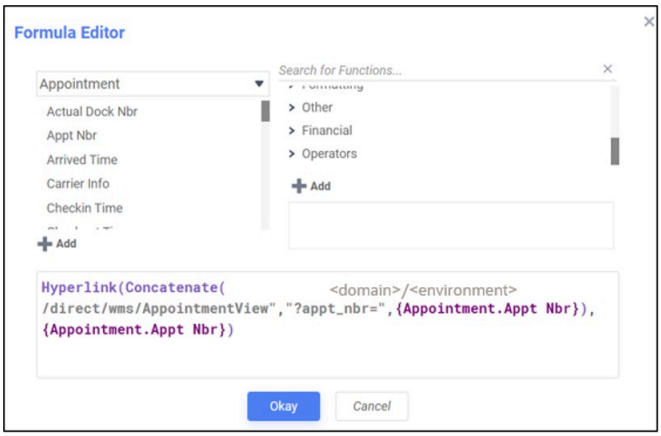
In Web Reports Gen 2, the steps to deep link a URL are as follows:

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.



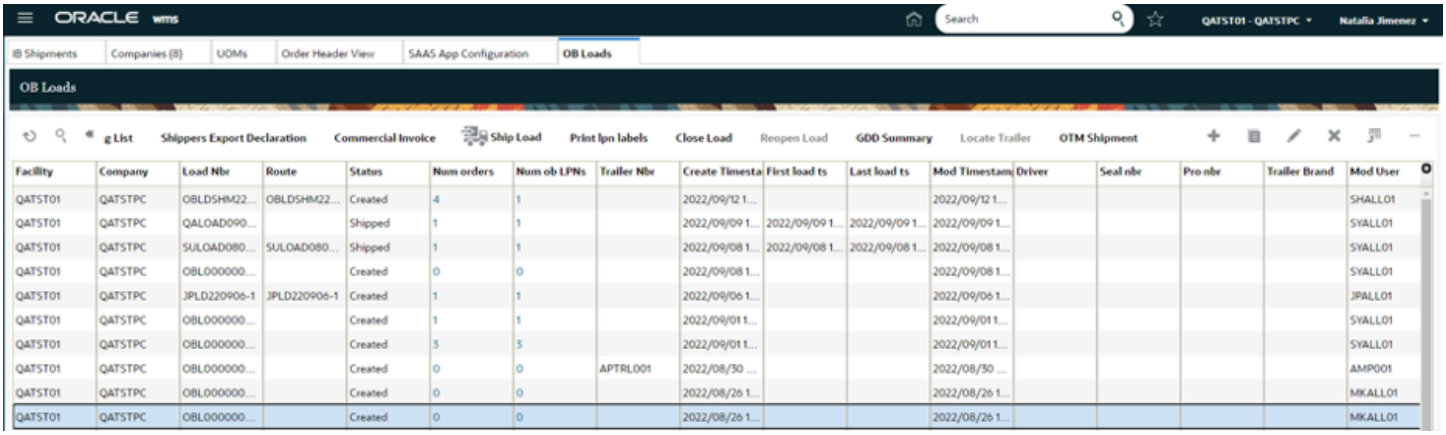
Creating Deep Links to Oracle Transportation Management (OTM)

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.



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.

Launch OTM Shipments Screen from Oracle WMS Cloud

OTM Shipment View screens can be launched from within the WMS application so that you can view the 3D Load Planner and access other OTM features without leaving WMS.

The SaaS App Configuration allows users to configure the base URL per company for launching OTM 3D Planner view.

Company and Facility UI

Company UI

Configuration Overview

The **Company UI** provides centralized access for managing critical company-level settings, including security policies, decimal precision, unit of measurement (UOM) preferences, and company activation status.

Company Security Configuration

This section manages the password policy and login attempt settings across the organization.

Setting	Description	Default Value
Min Password Life (days)	The minimum time (in days) a user must wait before changing their password again.	1
Max Password Life (days)	The maximum time (in days) a password can be used before requiring a reset.	365
Min Password Length	Minimum number of characters required in a password.	8

Max Failed Login Attempts	Number of incorrect login attempts allowed before an account is locked.	`10`
Password History Count	Number of previous passwords stored to prevent reuse.	`3`

These settings enhance password hygiene and reduce the risk of unauthorized access.

Decimal Setting

The **Decimal Setting** defines the level of precision allowed for numerical fields related to quantities, weights, volumes, and dimensions within the system.

Setting	Description	Value
Password	Required to authenticate changes in decimal settings.	••••••••
Maximum Quantity Decimal Precision	Maximum number of decimal places allowed for quantity-related values.	`8`
Maximum Weight/Volume/Dimension Decimal Precision	Precision for weight, volume, and dimension fields.	`6`

Ensuring appropriate decimal precision supports accurate inventory tracking and shipping measurements.

Activate / Deactivate Company

Used for enabling or disabling access to the company account. Typically used for temporary deactivation during audits, downtime, or inactivity.

Field	Description
Password	Required to confirm company activation change.

Note: Only administrators with the appropriate permissions should perform this action.

UOM (Unit of Measure) Configuration

Defines the default units used across the company for weight, volume, and dimensions.

Setting	Description	Example Value
Password	Required to make any UOM configuration changes.	••••••••
Weight UOM	Default unit for weight measurements.	`Kilogram`
Volume UOM	Default unit for volume measurements.	`Liter`
Dimension UOM	Default unit for dimension (length, width, height).	`Centimeter`

Display UOM Code in UI	Toggles the visibility of UOM codes in user interface displays.	
Display Units UOM in RF	Controls whether units appear on RF (Radio Frequency) devices.	

Note: Change in the values in the middle of the implementation will not change the existing values.)

How to Create a Company

Creating a new company in the system requires filling out essential company information and configuration details.

Below is an explanation of the fields you need to complete and their purposes.

Required Fields for Company Creation

Field Name	Description	Required
Company Code	Unique identifier code for the company.	Yes (*)
Company Name	Full legal or trading name of the company.	Yes
Address 1	Primary address line (street, PO box).	Yes
Address 2	Secondary address line (optional).	No
Address 3	Additional address info (optional).	No
Locality	Local area or district within the city.	No
City	City or town where the company is located.	Yes
State	State, province, or region.	Yes
ZIP	Postal or ZIP code.	Yes
Country	Country of the company's headquarters.	Yes
Phone Number	Main contact phone number.	No
Email	Primary contact email address.	No
Contact	Name of the main contact person.	No
External Reference Number	Optional external ID or reference number used for integration.	No
Custom DB Name	Name for the company-specific database (if applicable).	No
Employer Number	Employer or tax registration number.	No
Custom Field 1 to 5	Additional customizable fields for company-specific data.	No
Reload Literals When Changing Company	Checkbox to refresh language literals and settings upon switching companies from the UI.	Optional

Image	Upload a logo or image associated with the company. • **Important Notes on Image Upload:** o Uploaded images are automatically compressed and resized by the system, which may reduce image clarity. o The default Oracle WMS logo displayed in the UI is a PNG image with dimensions of **119 pixels (width) x 25 pixels (height)**. o The Oracle logo is not downloadable as a typical image file, which suggests it is optimized internally. o To achieve similar clarity as the default logo, it is **recommended to upload a PNG image of size 119x25 pixels**.	Optional

Steps to Create a Company:

1. Navigate to the Company Management section in your UI.
2. Provide a unique identifier for the company (mandatory).
3. Choose whether to reload UI literals when changing to this company (if applicable).
4. Attach a company logo or related image to personalize the company profile.
    - Larger images or different formats may be resized or compressed, resulting in a loss of sharpness.
    - Currently, there are no official guidelines published for optimal image size, but following the above recommendation helps maintain logo clarity.
5. After verifying all information, save the new company record to register it in the system.

Note:

- The **Company Code** is critical and must be unique to avoid conflicts.
- Custom fields can be tailored to your organizational needs and integrations.
- The reload literals option is useful in multi-language environments to ensure UI text reflects the correct language or regional settings.
- Uploading an image helps visually identify the company in dashboards or reports.

Facility UI

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.

Functional Field Description	
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.
Mobile Inactive Timeout in Minutes	Enables 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.
Priority	Set the priority for the facility. The Facility Priority value takes precedence for orders created from Order UI having priority value as blank
Time Zone	Choose the time zones of the facility from the drop-down.
Bonus Amt Per User	You can provide incentive to warehouse employees to increase their productivity. This configuration is provided for WMF users.
Cust field 1-5	Fields to enter more information.
Latitude	Enter the latitude component of the facility geo coordinates to calculate distance between facilities, stores and sites or identify routing logic and so on. You can enter more than 8 decimals in the field.
Longitude	Enter the longitude component of the facility geo coordinates to calculate distance between facilities, stores and sites or decide routing logic and so on. You can enter more than 8 decimals in the field.

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

Oracle WMS Cloud supports spatial awareness of locations through different levels of location information - Area, Aisle, Bay, Level, Position and Bin. In addition, the system also supports fields on location for spatial awareness such as:

- **X Coordinate** - This field will hold the x-axis value of the location in a 3 dimensional space. The data type of this field will be same as the length field in location.
- **Y Coordinate** - This field will hold the y-axis value of the location in a 3 dimensional space. The data type of this field will be same as the length field in location.
- **Z Coordinate** - This field will hold the z-axis value of the location in a 3 dimensional space. The data type of this field will be same as the length field in location.

Location Coordinate Base UOM

The Location Coordinates Base UOM field holds the UOM of X,Y,Z coordinates of location such as kms, meters, yard, feet, miles that belong to DIMENSION UOM class.

Note: This button is permission controlled. You need to enable the "Facility/Change Facilities" to access this button .

1. Select the facility record from the Facility UI.
2. Click Location Coordinates UOM button. This will open the dialog box with following fields:
    a. Password: This is a required field and needs admin's password to proceed.
    b. Location Coordinates UOM: Select the Location Coordinates UOM from the drop-down list. This list the UOM descriptions of all UOM Codes where UOM Class Code is DIMENSION.

If a value is already selected from the drop-down list and user attempts to save with a different UOM, the system display confirmation message "Existing Data will not be converted. Proceed with changing UOM?

1. Click OK to proceed.

Set Decimal Setting for Location Coordinates

You can set the max decimals allowed for the coordinate values for your facility through the Decimal Setting Location Coordinates action button.

1. Select the facility record from the Facility UI.
2. Click the Decimal Setting for Location Coordinates action button. This will open the dialog box with following mandatory fields:

> **Note:** This button is permission controlled. You need to enable the "Facility/Change Facilities" to access this button.

[Decimal Setting for Location Coordinates]

1. a. Password: Enter user password to proceed.
   b. Max Decimal for Coordinates: Set the maximum decimal coordinates ranging between 0-25.
2. Click Submit.

If the new value configured is less than the existing value, then system display confirmation message "The decimal setting will be applicable only to new data. Existing data will not be changed".

> **Note:** Whenever you change the decimals coordinates, the system keylogs in the facility UI. For example, if the current value of Max Decimals for Location Coordinates is changed from 2 to 5, the system logs a message "Max Decimals for Location Coordinates changed (2 to 5) by <login_id>".

For information on how to set WMS managed, refer to *Transfer Inventory between WMS Managed Facilities*

For information on how to set UOM Configuration, refer to *Configuring Unit of Measure (UOM) in WMS*

For information on how to set and unset printing audit history for a facility, refer to *Printing History*

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). *[Assigning Users to Facilities and Companies]*

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

[Sample User/Group set up in WMS]

Edit Message Configuration for Facilities

In the **Message UI** > **Edit Message Facility Message Configuration** section, you can select '*****', option from the Facility drop-down menu to update the settings for multiple location in One-Go. This option will automatically update the change to all eligible facilities you manage, eliminating the need for repetitive updates.

1. Navigate to the **Message UI**.
2. Select **Edit Message Facility Message Config** option.
3. In the **Facility Drop-down**, select the * to apply changes across all your eligible facilities.
4. Click **Save.**. On success, a confirmation dialog appears for you to confirm the changes applied to all eligible facilities.
5. Confirm the action to proceed. Upon saving, the system will automatically update the message configuration for every eligible facility linked to your account.

Note: Enable and **Auto Reject** check boxes are blank by default. You can adjust these settings accordingly to enable or disable messages, and set auto rejection rules.

Interfacing Data

You can interface data using Input Interfaces and Output Interfaces

Supported file formats

Input Interfaces

Oracle WMS Cloud supports the following formats for interfacing input data:

- Flat files
- XML files
- XLS files
- JSON files (for specific entities only)

Output Interfaces

For interfacing output data, the following file formats:

- Flat files
- XML files
- JSON files (for specific entities only)

You can also use a REST API to interface input data using the URL:

POST

`…wms/api/init_stage_interface/`

Input Interfaces

The following entities are supported in Input Interfaces:

- Appointment
- Asset
- Clock
- Column Formatting Rule
- Consolidation Location Config
- Cubiscan
- Daily VAS Track
- Destination Facility Attributes
- Employee Location Track
- Entity Update
- Facility Specific Item Properties
- IB Shipment Serial Number
- Inbound Shipment
- Induct LPN
- Item
- Item Barcode
- Item Material Hazard Type
- Item Pre-Pack
- Literals
- Locate LPN
- Location
- Messages
- MHE Divert Confirmation
- Movement Request
- Order
- Order Instructions
- Outbound Load
- Planned OB Load
- Point Of Sale
- Price Label
- Prod Goal Line Group
- Prod Goal VAS
- Purchase Order
- Route
- Ship to Company

- Site
- SKU Line
- Store
- Users
- Vendors
- WAA Screen XREF
- Work Area Activity
- Work Order

Output Interfaces

The following entities are supported in Output Interfaces:

- Bill of Lading
- Commercial Invoice
- Container Outbound Load Export
- Custom Output
- Customer Inventory Summary Export
- Cycle Count Task Info
- Data Extract
- Distribution Info
- Export Shipment Packing List
- Iblpn Info
- Iblpn Report
- Inbound Shipment Verifications Export
- Inventory Balance Snapshot by ERP Bucket
- Inventory Balance Snapshot by Location
- 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
- Replenishment Wave Pick Info
- Report Output
- Route Instruction
- Shippers Export Declaration
- Wave Pick Info
- Web Report

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

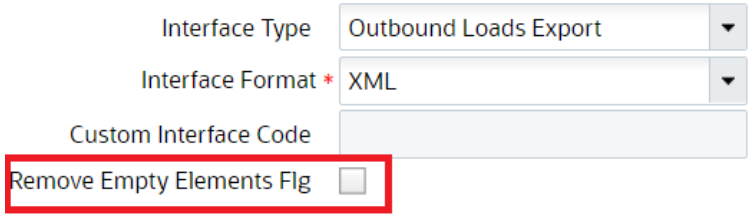
You have the option in Oracle WMS Cloud to share information to external systems through output interfaces (for example, inventory history, shipment confirmation payload). In certain scenarios where some of these output interface payloads is exposed to rest api endpoints, can be pretty huge depending 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 the edit pane and select the interface format “XML” and select the field **Remove empty elements flag**.



Configure Output Interfaces Generation in the Output Interface Configuration Screen

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

for the following output payloads:

- 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

Configuration Options

Consideration 1:

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

- Header/Detail
- Hierarchical
- One Line
- XML
- JSON

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

Consideration 2:

Send output payloads 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 output payloads 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 output payloads 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

Note: The MHE system code is used only for the Route Instruction Output Interface type.

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.

Extract Output Data in Output Interface Configuration UI

After configuring the Data Extract interface type, you can specify a target directory from the "Output Interface Configuration" detailed UI. All the CSV files generated by the scheduled jobs reflects on the specified target directory configured in the output interface target screen.

Note: The Data Extract Interface type currently allows only ‘Flat” files.

1. Select "Data Extract" type from the Interface type drop down on the “Output Interface Configuration” UI screen.
2. The Interface Format field displays only the "Extract flat files" option on the drop down.

   Note: The web service interface protocol is not supported for the Data extract in the output interface configuration. The current copy files schedule job works as is. The existing users should be able to continue using this job for copying files from the Output interface to the targeted SFTP directories, but you need to configure the GET SFTP files job to access the files generated by the Copy files job.

3. Select the Interface Type and click the detailed icon. The Output Interface Target opens.
4. Provide a valid SFTP credentials and the SFTP target directory Data Extract file interface type via CRUD operations.

Support for JSON Format in Output Interface

We now support JSON format in the Output Interface for the following output interfaces:

Output Interface	Used For
Wave Pick Info	Inventory picking information
Replenishment Pick Info	Inventory information after performing

1. From the **Output Interface Configuration** UI, select the Interface Type.
2. Select JSON as the interface format and click Save.
3. The system should now generate the output file in JSON format.

Endpoint Configuration UI

Warehouses often send WMS information to other systems or destinations. For example, WMS may send output interface files to a web service, place files in object storage, send results to an email address, or send print requests to a JSON printer.

Endpoint Configuration lets you define these destinations in one place. After you create an endpoint, you can reuse it in Output Interface Configuration or in the Printer UI. This reduces repeated setup and helps users maintain destination details consistently.

How does this help?

Using Endpoint Configuration lets you create and manage saved destinations that WMS can use to send data outside WMS.

You can use this screen to:

- Define REST Web Service destinations.
- Define object storage destinations.
- Define email address destinations.

- Store authentication details required by the destination.
- Search, update, copy, delete, and export endpoint records.
- Reuse endpoints in output interfaces and JSON printer setup.

This UI has following fields:

1. **Endpoint Name**: Name that identifies the endpoint. The name must be unique for the company.
2. **Endpoint Interface Protocol**: Method WMS uses to send data, such as:
    a. External SFTP
    b. REST Web Service
    c. Objectstore:
    d. Objectstore for Data Extract
3. **Endpoint Authentication Type**: Authentication method for the endpoint.
    a. Basic Auth
    b. Private Key Auth
4. **Object Store Provider**: Storage provider used when the protocol is Objectstore.
5. **Endpoint URL** : Destination web address for REST Web Service endpoints.
6. **Username**: User name for authentication.
7. **Password**: Password for authentication. WMS stores this as a protected value.
8. **Endpoint Type**: Type of destination, such as Email Address.
9. **Email Address**: Email destination for output interface results.

Object Store Providers

When you select **Objectstore**, choose the provider and enter the required details.

- **AWS S3**: Access Key, Secret Key, Region, Bucket Name
- **Azure Blob**: Connection String, Container Name
- **Google Cloud Storage**: Project ID, Private Key ID, Private Key, Client Email, Client ID, Bucket Name
- **OCI Object Storage**: User, Fingerprint, Tenancy, Region, Private Key, Bucket Name, Folder

This UI allows you to:

1. Create, edit, copy, and delete endpoints.
2. Search endpoints by Endpoint Name, Interface Protocol, Auth Type, URL, and Object Store Provider.
3. Export endpoint records.
4. Use endpoints in Output Interface Configuration.
5. Use endpoints for JSON printer setup.
6. Create email address endpoints for output interface destinations.
7. View changes to object store endpoint details in Endpoint Change History.

Steps to Enable

1. Give users access to **Endpoint Configuration** through WMS security.
2. Give users access to related screens, such as **Output Interface Configuration** or **Printer**, if they need to use endpoints there.

Create an Endpoint

1. Open **Endpoint Configuration**.
2. Select **Create**.
3. Enter an **Endpoint Name**.

4. Select the **Interface Protocol** or endpoint type.
5. Enter the required destination details.
6. Enter authentication details, if required.
7. Save the endpoint.

Use an Endpoint in Output Interface Configuration

1. Open **Output Interface Configuration**.
2. Go to **Output Interface Target**.
3. Select the endpoint from the **Endpoint** list.
4. Save the output interface configuration.

Use an Endpoint for a JSON Printer

1. Open **Printer**.
2. Select **JSON** as the printer type.
3. Select **Endpoint** as the protocol.
4. Select the required endpoint.
5. Save the printer

Redwood Desktop

Providing a more intuitive and accessible product, the Redwood Desktop Experience enables you to easily navigate and utilize the powerful features and functionality that Oracle offers.

To access the new **Redwood Experience,** click the user drop-down menu in WMS, and select the Try the new Redwood Experience option.

Home with Ask Oracle in Redwood Desktop

Home with Ask Oracle is accessible from the **Home with Ask Oracle** button in Redwood Desktop, ensuring better organization, clarity, and an improved user experience. Users can navigate between different areas of the system when switching context to start a new task.

Improved Module Grouping and Organization

Now, you can use the **Home with Ask Oracle** button (from the bottom right side of the Redwood Desktop home page.) The home page provides a search box, a product map for easy navigation, and notifications panel that will be available in upcoming releases.

The product map is a high-level ordering of features to provide an overview of what's available and give access to the landing page for each feature. They are divided by categories. You can click on a WMS category (such as Receiving, Putaway, or Wave Execution for example), and you'll be able to drill-down and see the available WMS transactions in each module category that are available in the Redwood experience. Screens available in Ask Oracle are those that have been converted to Redwood and also part of the user's UI menu. All screens that are available in the user's menu, regardless of the number of levels of the menu are grouped under its module category. Category is a new attribute that has been added to the module screen.

Every module in WMS has been assigned a category, such as Receiving, Wave Execution etc. As part of this any sub-menu names created in the standard WMS menu are ignored and instead are grouped under pre-defined categories. This approach aligns the Ask Oracle product map with Oracle Redwood design patterns, while at the same time allowing existing menus to be seamlessly merged into this new experience.

For example, if you click on the **Wave Execution** module category, you'll then see a list of several associated transactions including Wave, Work Order Type, Replenishment type and so on. When you select a screen, all the screens available in that category are rendered in the bottom in-app Nav Bar with the selected screen's tab highlighted. The idea is that related screens are also easily accessible.

You can select the **Back** arrow button to return to the **Home with Ask Oracle/Module Categories Home.**

Click the **Close Home with Ask Oracle** button to return to the Redwood Desktop Home page.

To access the **Home with Ask Oracle** screen:

1. From the **User** drop-down, select -> **Try the new Redwood Experience.**
2. After the Redwood screen opens, click the **Home with Ask Oracle** button in the bottom right.
3. From the **Home with Ask Oracle page,** you can choose a category and then find all screens available underneath each selected category.

Redwood Desktop Configuration UI

The Redwood Desktop Configuration UI allows you to view detailed information about WMS module categories.

Visible fields in Redwood Desktop Configuration UI

- **Categories:** Each module will now display its assigned category. This categorization provides a high-level overview of the module's functionality, making it easier to navigate and understand our platform's structure.
- **Available in Regular UI:** This field indicates the modules accessible in the traditional Dojo interface. It helps users quickly identify the scope of features available in the familiar UI.
- **Available in Redwood UI:** Highlighting our transition to Redwood, this field showcases modules that are accessible in the new Redwood UI, allowing users to stay updated with our platform's evolution.
- **Is Configuration:** This field identifies modules that are part of the Redwood Configuration UI, providing access to powerful customization options.

> **Note:** The UI will only show screens that are marked as "Is Configuration" enabled and "Available in Redwood" enabled.

To access the read-only fields:

1. Go to the **Redwood Desktop Configuration** UI.
2. From here you can view which screens are part of the Redwood Configuration UI and which screens are enabled and available in Redwood.
3. You can also view the list of Module Categories.

Configure and Launch External URLs

Warehouse users often need fast access to partner or supplier portals (documentation, supplier systems, reference sites) while working in WMS.

New Module (Redwood Only)

The **External Site**, module and **external_url** screen parameter allows you to configure each external site entry via the external_url screen parameter. The URLs will open in a new browser tab, independent of WMS. No authentication, tokens, or WMS context are passed to the destination site.

Access Control

You can grant access to configure external URLs using the "**access external sites**" permission. This permission is granted by default to ADMIN. EMPLOYEE roles must be explicitly granted this permission.

If a user does not have the permission, the external URL will not open.

Menu and Device/Client Rules

You can't create menus with screen type EXTERNAL-URL. Saving this kind of menu will display the error message: "Menu with this screen type is not allowed."

External site screens created using the External site module can be placed in UI-HTML menus, to be accessed from the Redwood Desktop UI.

Steps to Enable and Configure

1. You can configure each external site entry via the **external_url** screen parameter. The URLs will open in a new browser tab, independent of WMS. No authentication, tokens, or WMS context are passed to the destination site.
2. You can grant access to configure external URLs using the "**access external sites**" permission. This permission is granted by default to ADMIN. EMPLOYEE roles must be explicitly granted this permission.

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 the 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.

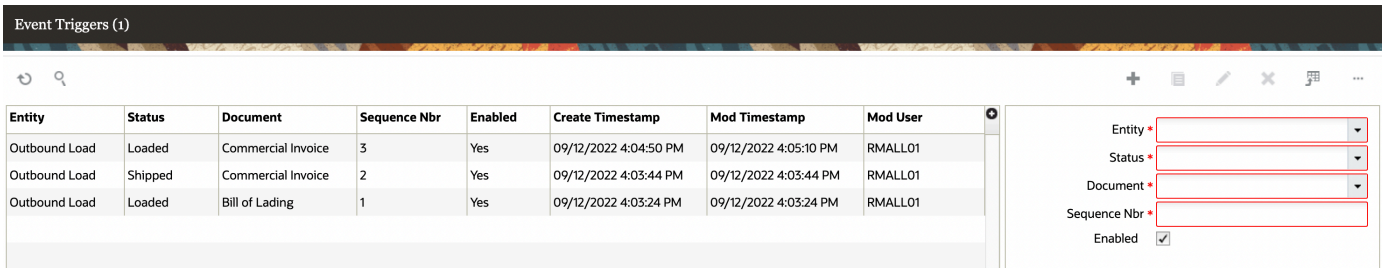
Note: All of the fields in the create/edit pane will be frozen except the relative fields to the Printer or Email option selected in the Interface Protocol field.

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.

Watch video

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.



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).

Auto-Send Shipping Documents to Dynamic Email

You can automatically send shipping documents, such as Commercial Invoices and Bills of Lading (BOL), to multiple recipients at the time of loading or shipping. This ensures that necessary documents are received without manual intervention.

- **Auto Printing and Auto Emailing of Export Documents**

Auto-printing and auto-emailing support Export Shipment Packing Lists and Shippers Export Declarations. Once an Outbound Load is shipped or loaded, these documents are either automatically printed via a designated printer or emailed based on event triggers configured in the Output Interface Configuration UI.

To enable this:

1. In the Output Interface UI, select the **Interface Type**.
2. Click **Output Interface Target**.
3. On the **Create/Edit** pane:
    - **Documentation Notification Email field**: Select **Outbound Load Doc Notification Email** or **Carrier Email** from the dropdown to ensure emails are sent to the relevant parties upon shipment or loading.
    - **Email field**: Or, manually enter a static email address.
4. Click **Select Target System**, and the target system will be updated for the file.
    - **Note:**
        - If no static email is set and the **Documentation Notification Email field** is blank, the system will default to the email address configured in the **Users UI**.
        - If no user email is set, an error will be triggered.
        - The system-generated email includes the subject line: *“Auto-generated file received for ”*

New Document Notification Field in Outbound Load

An optional text field, `document_notification_email`, enhances the Outbound Load and Planned Load headers. The **Outbound Load/Planned Load PATCH API** also supports this field, allowing seamless integration with various file formats, including flat files and XML.

Note: Updates can only be made for loads that have not yet been shipped.

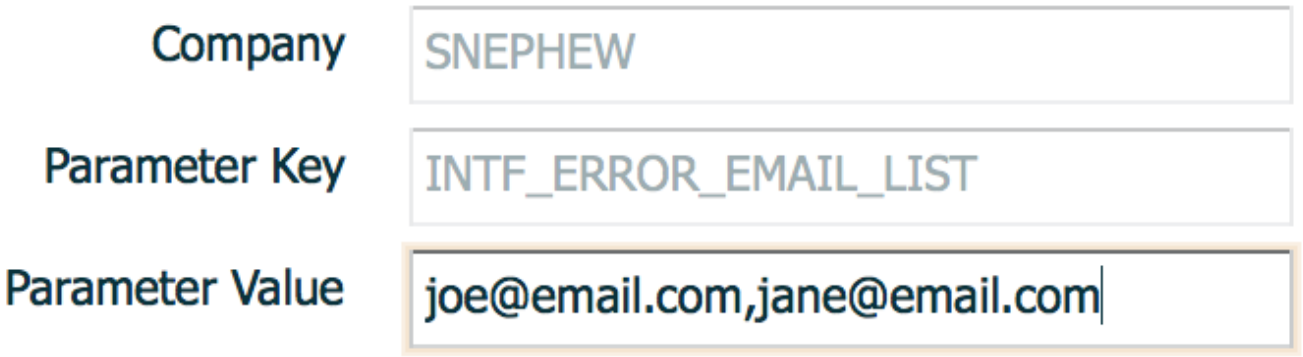
Setting Email Notifications for Failed Interfaces

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.



Configure Email Notification

A mechanism is available in Oracle WMS Cloud to handle outbound email notification during input interface for entities.

The **Input Interface Configuration** screen allows you to configure your email notifications only for those entities that have the 'Send Failure Email' flag enabled.

By default, the triggering of emails is set when user interface a disabled input file. And, the system will not send emails if there are no existing records with the "Send Failure Email" flag disabled.

Note:

- You can set the entities for which you want a failure mail to configure email notification.
- You can set the actual emails to which the failure mails have to be sent by setting email notifications.

To configure email notifications:

1. In the Input Interface Configuration screen, click (+) and select the entity from the Interface Type drop-down menu.
2. Enable the 'Send Failure Email' check box.
3. Click Save.

Migrate Multiple Screen Configurations using Configuration Migration Pack

Using the **Configuration Pack View UI**, you can migrate root entities and their dependent screen configurations in a single operation. The Configuration Pack View UI allows you to group a root entity with its child and sub-child dependencies. You can export, import, or copy the entire set in one operation. You can migrate multiple screen configurations in one pack.

For example, when you migrate Wave Templates, the screen configuration requires its dependent screens migration (such as Wave Search, Cubing Rule, and Task Creation Template.) Each screen may have its own dependencies. In this case, if you do not migrate these configurations in the correct order, the migration can fail.

This **Configuration Pack View** UI helps you with the following:

- Reduce setup time by migrating multiple related entities in one operation.
- Minimize dependency errors by automatically including required child and sub-child configuration entities.
- Improve consistency across facilities/companies in multi-site deployments.
- Eliminate intermediate file handling when you use direct copy action in the same session.

CONFIGURATION PACK VIEW UI

The **Configuration Pack View** UI allows you to create and manage configuration packs that bundle one or more root entities with all related dependent screens.

> **Note:** On the Configuration Pack View UI, you can add a configuration pack name and you can add the entities on the Configuration Pack Detail screen.

Actions on the Configuration Pack View and Configuration Pack Detail are permission controlled.

> **Note:** By default, admin users are enabled with these group permissions.

The following are the group permissions to create, edit, and delete configuration packs:

Group Permission	Behavior
Configuration Pack / Can create config pack	Controls Create action on the Configuration Pack View and Configuration Pack Detail screens.
Configuration Pack / Can edit config pack	Controls Edit action on the Configuration Pack View and Configuration Pack Detail screens.
Configuration Pack / Can delete config pack	Controls Delete action on the Configuration Pack View and Configuration Pack Detail screens.

After enabling these permissions, you can create a configuration pack on the Configuration Pack View. From the created configuration pack, on the Configuration Pack Detail, you can add root entity or individual entities. When you add a root entity, the system auto loads all related child/sub-child entities that support configuration, groups them under the root, and tracks relationships in “Root Node” and “Included By”.

Delete validations:

- Child/sub-child records cannot be deleted - delete action will be disabled
- When deleting a Root Node entity record, the system will also delete all its related child/sub-child records.

To migrate configuration packs, we have introduced the following action buttons:

- **Export Config Pack**: Exports the selected configuration pack (root entities and included dependencies) to a Zip file.
- **Import Config Pack**: Imports the selected configuration pack Zip file to the logged in facility/company.
- **Copy Config Pack to Eligible Facility/Company**: Copies the selected configuration pack to the chosen destination facility/company in one step.

These action buttons are permission controlled. The following table lists the required group permissions to enable these action buttons:

Group Permission	Controlled Action Button
Configuration Pack / Export Config Pack	Export Config Pack
Configuration Pack / Import Config Pack	Import Config Pack
Configuration Pack / Copy Config Pack to Eligible Facility/Company	Copy Config Pack to Eligible Facility/Company

Note: You can add multiple root entities and screens to a configuration pack. And you can migrate only one configuration pack record at a time.

Once migration completes, the imported configurations appear in their corresponding configuration screens. The migration process creates records that do not exist in the target facility/company and updates existing identical records to avoid duplicates.

Steps to Enable and Configure

1. Add the “ConfigPackView” module to your group menu.
2. For **create, edit, and delete** on the Configuration Pack View and Configuration Pack Detail screens enable the following Group Permissions:
    - Configuration Pack / **Can create config pack**
    - Configuration Pack / **Can edit config pack**
    - Configuration Pack / **Can delete config pack**
3. For **Configuration Pack actions** on the Configuration Pack View enable the following Group permissions:
    - Configuration Pack / **Export Config Pack**
    - Configuration Pack / **Import Config Pack**

- Configuration Pack / **Copy Config Pack to Eligible Facility/Company**

Note: By default, admin users are enabled with these group permissions.

4. Create a Configuration Pack:
   a. On the **Configuration Pack View** UI, create a configuration pack. Enter Name and Description (unique per facility/company).
   b. Select the created configuration pack and navigate to the **Configuration Pack Detail** screen.
   c. Add one or more root entities to details. The system auto loads supported child/subchild entities and groups them under their root entity.
   d. Migrate the configuration pack: On the **Configuration Pack View** UI, use “Export Config Pack”, “Import Config Pack”, or “Copy Config Pack to Eligible Facility/Company” action buttons.

Configuration Import/Export for Environments, Companies, and Facilities

The Configuration Import/Export (config) action button helps you to export and/or import (migrate or replicate) configurations from one environment (source) to another (target) in WMS, or company/facility specific configurations from one WMS Company/Facility to another.

Using this action button, you can export all or specific records via export configuration option and import those records to the target environment in the same screen via import configuration option. Importing configurations can create new records or update existing ones, but it does not delete existing records.

This configuration migration assists you in:

- Migrating customized configurations between environments within a single release.
- Extracting specific configurations and/or screens from a customer environment to QA to replicate issues.
- Duplicating the Parent Company's setups to create new facilities.
- Configuring new users who might require their default settings.

Pre-Requisites

To enable the “config” action button in the relevant screens, you need to add the group permission “ConfigImportExport / Import/Export Configuration”.

To add “ConfigImportExport / Import/Export Configuration” group permission, do the following:

1. Go to **Groups (GroupsView)** UI.
2. Select your group and click “Permissions” action button.
3. In the group permissions list, enable the permission “ConfigImportExport / Import/Export Configuration”.
4. Click **Save**.

Applicable Screens

The flexibility to migrate or replicate the UI configurations between facilities, companies, and environments is available in the following UIs or screens.

Module Name	UI/screen Name
CCTriggerMgmtView	Cycle Count Trigger Management
InventoryLockCodeView	Inventory Lock Codes
LocationSizeTypeView	Location Size Types
ObLpnTypeView	LPN Type
OrderLockView	Order Lock
PurchaseOrderTypeView	Purchase Order Type
PutawayTypeView	Putaway Type
ReasonCodeView	Reason Code
ReplenishmentTypeView	Replenishment Type
ReplenishmentZoneView	Replenishment Zone
TaskTypeView	Task Type
TaskZoneView	Task Zone
TrailerTypeView	Trailer Types
WorkOrderTypeView	Work Order Types
LgfProgramDataView	Facility Parameters
BarcodeTypeView	Barcode Type
ScreenView	Screens
CompanyParmView	Company Parameters
EquipmentTypeView	Equipment Type
ContactView	Contact
OrdertypeView	Order Type
CompanyReportTypeView	Company Report Type
MheSystemView	MHE System / MHE Lane / MHE Msg Config / MHE Route Config
VendorView	Vendor
ShiptoCompanyView	Ship to Company
ReplenishmentTypeZoneXrefView	Replenishment Type Zone Xref
InputInterfaceConfigView	Input Interface Config
VendorCharacteristicsView	Vendor Characteristics View
LabelTemplateView	Label Template View
BreaksView	Breaks View - WFM
CostCentreView	Cost Centre

WorkGroupView	Work Group
GroupActivityView	Group Activity
WFMWork_AreaView	Work Area
TeamsView	Teams View - WFM
BonusGroupView	Bonus Group View - WFM
BonusBudgetView	Bonus Budget View - WFM
MessageCodeView	Message Codes
PutawayTypeCalcRuleView	Putaway Type Calc Rule
MenuHdrView	Menus
CubingRuleView	Cubing Rule
CCAdjustmentApprovalRuleView	CC Adjustment Approval Rule
TaskCreationView	Task Creation
StaffingPlanView	Staffing Plan View - wfm
WorkAreaActivityWFMView	Work Area Activity
WmsTransactionView	Wms Transaction View - wfm
ProdGoalVasView	Prod Goal Vas View - wfm
ProdGoalLineGroupView	Prod Goal Line Group View - wfm
SkuLineGroupView	Sku Line Group View - wfm
ShiftsView	Shifts
MaterialHandlingView	Material Handling
ReplenishmentTemplateView	Replenishment Template View / Replenishment Rule
ColumnOrderingView	Column Ordering
WaveTemplateView	Wave Template / Wave Template > Wave Template Search / Wave Template Search > Dynamic Wave Search / Wave Template Search > Order Sequence Rule / Wave Template > Expiry Date Range / Wave Template > Allocation Mode
InvHistoryActivityParamView	Inventory History Activity Parameters
IbShipmentTypeView	IB Shipment Types
VendorPerfCodeView	Vendor Performance Codes
PutawayPriorityView	Putaway Priority
OblpnPATypeActionView	Oblpn Putaway Type Action
CrossdockFlowthroughRuleView	Crossdock Flowthrough Inventory Order Selection
BuildPutawayCartCompatibilityRuleView	Build Putaway Cart Compatibility Rule

Export Configuration

You can export configurations for either selected rows or for entire screen. If the screen supports the “config” action button, then you can export the screen configuration.

To export the configuration, do the following:

1. Go to your preferred UI or screen that supports config action button (applicable UIs or screens mentioned in the above list).
2. Select the records to export.

   Note:
   - If you are not selecting any records, the system exports all data available on the screen.
   - Searching for a few rows and then exporting without selecting any record will still export all data (regardless of what was searched).

3. On the right corner of the UI’s table, click “config” action button.
4. In the drop-down options, click “export_configuration” option.



   The system prompts to save the configuration file (.cfg file format) that needs to be downloaded in the local file system.

   Note: You have to enable download permissions on your browser to download and save the export configuration file.

5. Select the folder location and click **Save**.

Note: The downloaded configuration file is an encrypted text file. So, any attempt to modify the file corrupts and render it as un-importable.

Import Configuration

You can import configurations to create new records or update existing records, but it does not delete existing records on the supported screen. If the screen supports the “config” action button, then you can export the screen configuration.

Importing configurations depends on the unique field names of the screens.

For example, assume that you have a task type description record “Internal Pick” on the source environment and on the target environment for **Task Type** UI.

If editing your source screen’s (Task Type) task type description to “Internal LPN Pick” and importing this configuration, the system will no longer find the “Internal Pick” task type description but creates a new “Internal LPN Pick” task type description record for the screen in the target environment.

The target environment for importing configurations can be:

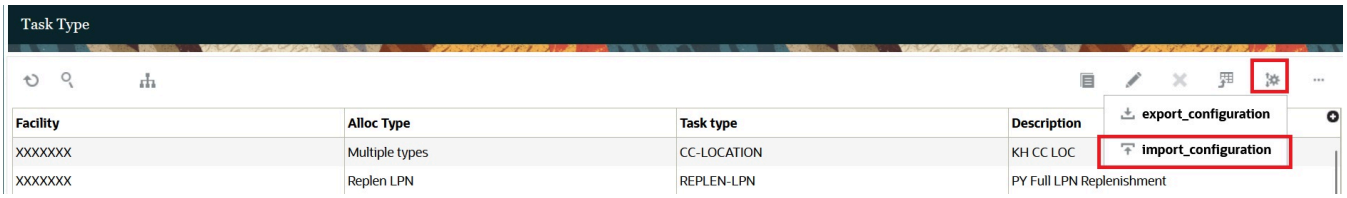
- The same Facility/Company in the same environment. This is useful for restoring from a backup.
- A different Facility/Company but in the same environment. This is useful for replicating configurations done for one Facility in another Facility.
- The same Facility/Company in a different environment.
- A different Facility/Company in a different environment.

Note:

- The exported configuration file must be from an environment with a matching major release number (such as 23B or 23C).
- Currently, there is no support for automatic backup of the current configuration when an import is done. So, while importing configurations, it is always recommended to export configurations first for backup.
- The exported configuration file (.cfg file format) must be unedited manually.

To import the configuration, do the following:

1. Go to the UI or screen that supports config action button (applicable UIs or screens mentioned in the above list).
2. On the right corner of the UI's table, click "config" action button.
3. In the drop-down options, click "import_configuration" option.



4. On the dialog box screen, click "Choose Files" button.
5. Then, select the previously exported configuration file and click **Upload**.

Copy Configurations

Now, you can **copy configurations directly** from the source to the target in a single step without manually downloading and uploading files.

KEY CHANGES

To support copy configurations, the following enhancements are made:

- A new option, "Copy Configuration to Eligible Facility/Company" is added to the Configuration action button.
- The group permission "ConfigImportExport / Import/Export Configuration" is renamed to "ConfigImportExportCopy / Import/Export/Copy Configuration". This group permission enables the Configuration action button, which provides access to the export, import, and copy configuration options.

Note: If your existing user group includes the group permission "ConfigImportExport / Import/Export Configuration", the system enables the group permission "ConfigImportExportCopy / Import/Export/Copy Configuration" by default.

COPY CONFIGURATION TO ELIGIBLE FACILITY/COMPANY BEHAVIOR

You can copy selected or all records on the relevant screens that support the Configuration action button.

Once you click “Copy Configuration to Eligible Facility/Company” under the Configuration action button, select the target eligible company and facility combination. After selection, click OK to copy configurations.

On success, the system creates new records or updates matching records in the target facility/company.

Steps to enable and configure

In each UI configuration screens, click the Configuration action button located on the upper-right corner. You can then access the “Copy Configuration to Eligible Facility/Company” drop-down option.

> **Note:** To use the Configuration action button in the relevant screens, you must add the group permission “ConfigImportExportCopy / Import/Export/Copy Configuration”. By default, admin users are enabled with this group permission.To use the Configuration action button in the relevant screens, you must add the group permission “ConfigImportExportCopy / Import/Export/Copy Configuration”. By default, admin users are enabled with this group permission.

Supported Entities in Purge Handling

The purge process enhances performance by optimizing data retention and improving storage efficiency. The purge process is auto-scheduled during your maintenance window from the following entities according to defined timelines:

> **Note:** You can retain the data in the system before purging via Purge Retention Period in the User UI. This button provides you an option to enter the retention duration (in years) and can be adjusted to any value between 1 and 5years. This button is authorized only for **ADMIN user provisioned during WMS Cloud service activation** (who also has access to the **RF Device Connection Details** button) to submit or update the purge retention period.

Entity	Time frame to be purged
WMS_ACTIVITY	Purging data older than 3 months.
INVENTORY_HISTORY	Purging data older than 5 years.
AUDIT_HISTORY	Purging data older than 5 years.
LPN_AUDIT_DTL	Purging data older than 5 years.
PALLET_AUDIT_DTL	Purging data older than 5 years.
OUTPUT_INTERFACE	Purging data older than 3 months.
OUTPUT_INTERFACE_MSG_LOG	Purging data older than 3 months.
LGFAPI_ARCHIVE	Purging data older than 3 months.
STAGE_REPLENISHMENT_PICK	Purging data older than 3 months.

Entity	Time frame to be purged
SERIAL_NBR_HISTORY	Purging data older than 3 years.
FROM_MANUFACTURING_ TRANSACTION_HDR	Purging data older than 5 years.
FROM_MANUFACTURING_ TRANSACTION_DTL	Purging data older than 5 years.
FROM_MANUFACTURING_ TRANSACTION_DTL_SERIAL_NBR	Purging data older than 5 years.
FROM_MHE_CYCLE_COUNT_INFO_DTL	Purging data older than 5 years.
FROM_MHE_CYCLE_COUNT_INFO_HDR	Purging data older than 5 years.
FROM_MHE_CYCLE_COUNT_INFO_ SERIAL_NBR	Purging data older than 5 years.
KEYED_LOG	Purging data older than 3 months.
COMMON_LOG	Purging data older than 3 months.
STAGE_APPOINTMENT_ATTR	Purging data older than 3 months.
STAGE_APPOINTMENT	Purging data older than 3 months.
STAGE_ASSET	Purging data older than 3 months.
STAGE_COLUMN_FORMATTING_RULE_ DEFN_DTL_LOV	Purging data older than 3 months.
STAGE_COLUMN_FORMATTING_RULE_ DEFN	Purging data older than 3 months.
STAGE_CONSOLIDATION_LOCATION	Purging data older than 3 months.
STAGE_CUBISCAN	Purging data older than 3 months.
STAGE_DEST_FACILITY_ATTRIBUTES	Purging data older than 3 months.
STAGE_IB_CONTAINER_LOCK	Purging data older than 3 months.
STAGE_IB_CONTAINER_DTL	Purging data older than 3 months.
STAGE_IB_CONTAINER	Purging data older than 3 months.
STAGE_IB_SHIPMENT_SERIAL_NBR	Purging data older than 3 months.
STAGE_IB_SHIPMENT_ATTR	Purging data older than 3 months.
STAGE_IB_SHIPMENT_DTL	Purging data older than 3 months.
STAGE_IB_SHIPMENT	Purging data older than 3 months.
STAGE_INTF_MESSAGE_ARCHIVE	Purging data older than 3 months.
STAGE_ITEM_ATTR	Purging data older than 3 months.
STAGE_ITEM_BARCODE	Purging data older than 3 months.
STAGE_ITEM_FACILITY	Purging data older than 3 months.

Entity	Time frame to be purged
STAGE_ITEM_IMAGE	Purging data older than 3 months.
STAGE_ITEM_MATERIAL_HAZARD_TYPE	Purging data older than 3 months.
STAGE_ITEM_PRE_PACK	Purging data older than 3 months.
STAGE_ITEM	Purging data older than 3 months.
STAGE_LGF_USER	Purging data older than 3 months.
STAGE_LOCATION_CONFIG	Purging data older than 3 months.
STAGE_LPN_LOCATE	Purging data older than 3 months.
STAGE_MOVEMENT_REQUEST_DTL	Purging data older than 3 months.
STAGE_MOVEMENT_REQUEST_HDR	Purging data older than 3 months.
STAGE_OB_LOAD	Purging data older than 3 months.
STAGE_OB_STOP	Purging data older than 3 months.
STAGE_ORDER_DTL	Purging data older than 3 months.
STAGE_ORDER_HDR_ATTR	Purging data older than 3 months.
STAGE_ORDER_HDR	Purging data older than 3 months.
STAGE_ORDER_INSTRUCTIONS	Purging data older than 3 months.
STAGE_PLANNED_OB_LOAD	Purging data older than 3 months.
STAGE_PLANNED_OB_LOAD_ORDER_DTL	Purging data older than 3 months.
STAGE_PLANNED_OB_STOP	Purging data older than 3 months.
STAGE_POINT_OF_SALE	Purging data older than 3 months.
STAGE_PRICE_LABEL	Purging data older than 3 months.
STAGE_PROD_GOAL_LINE_GROUP	Purging data older than 3 months.
STAGE_PROD_GOAL_VAS	Purging data older than 3 months.
STAGE_PURCHASE_ORDER_DTL	Purging data older than 3 months.
STAGE_PURCHASE_ORDER_HDR_ATTR	Purging data older than 3 months.
STAGE_PURCHASE_ORDER_HDR	Purging data older than 3 months.
STAGE_REPACK_SERIAL_NBR	Purging data older than 3 months.
STAGE_REPACK	Purging data older than 3 months.
STAGE_ROUTE_DTL	Purging data older than 3 months.
STAGE_ROUTE_HDR	Purging data older than 3 months.
STAGE_SHIPTO_COMPANY	Purging data older than 3 months.
STAGE_SITE	Purging data older than 3 months.

Entity	Time frame to be purged
STAGE_SKU_LINE	Purging data older than 3 months.
STAGE_STORE	Purging data older than 3 months.
STAGE_TRACK_RECORD	Purging data older than 3 months.
STAGE_VENDOR	Purging data older than 3 months.
STAGE_WORK_ORDER_COMPONENT	Purging data older than 3 months.
STAGE_WORK_ORDER_HDR	Purging data older than 3 months.
STAGE_WORK_ORDER_KIT	Purging data older than 3 months.
CC_SUMMARY_ADJUSTMENT_DTL	Purging data older than 5 years.
CC_SUMMARY_ADJUSTMENT_HDR	Purging data older than 5 years.
CC_ADJUSTMENT_HDR (Records with status: Cancelled)	Purging data older than 1 year.
CC_ADJUSTMENT_HDR (Records with statuses: Approved, Rejected, and No Variance)	Purging data older than 5 years.
WMS_ACTIVITY_DTL	Purging data older than 3 months.
FROM_MHE_PICK_CONFIRMATION_SERIAL_NBR	Purging data older than 3 months.
FROM_MHE_PICK_CONFIRMATION	Purging data older than 3 months.
STAGE_DAILY_VAS_TRACK	Purging data older than 3 months.
STAGE_MOVEMENT_REQUEST_SERIAL_NBR	Purging data older than 3 months.
STAGE_ORDER_DTL_SERIAL_NBR	Purging data older than 3 months.
STAGE_ITEM_UOM	Purging data older than 3 months.
LGF_ASYNC_TASK	Purging data older than 3 months.
STAGE_WAA_SCREEN_XREF	Purging data older than 3 months.
STAGE_WORK_AREA_ACTIVITY	Purging data older than 3 months.
STAGE_PLANNED_PARCEL_SHIPMENT_DTL	Purging data older than 3 months.
STAGE_PLANNED_PARCEL_SHIPMENT_HDR	Purging data older than 3 months.
STAGE_EMPLOYEE_LOCATION_TRACK	Purging data older than 3 months.
STAGE_ITEM_SPECIFIC_UOM_CONVERSION	Purging data older than 3 months.
STAGE_ERP_INV_SUMMARY	Purging data older than 3 months.
STAGE_PALLET_TYPE	Purging data older than 3 months.

Entity	Time frame to be purged
WAVE_AI_SUMMARY	Purging data older than 3 months.
WMS_ERP_INV_DISCREPANCY	Purging data older than 3 months.
WMS_ERP_INV_DISCREPANCY_SERIAL_NBR	Purging data older than 3 months.
WMS_INV_SUMMARY	Purging data older than 3 months.
WMS_INV_SUMMARY_SERIAL_NBR	Purging data older than 3 months.
ERP_INV_SUMMARY	Purging data older than 3 months.
ERP_INV_SUMMARY_SERIAL_NBR	Purging data older than 3 months.
RECON_ERROR_COUNT	Purging data older than 3 months.

Serial Number History handles the history of Serial Number being linked, delinked, and shipped from LPNs.

Note: To avoid accidental loss of essential data during the purge, it's highly recommended to schedule regular API extractions or data exports for all critical information. This ensures a backup of historical data before it's removed by the automated purge processes.

Change History Screens

You can use change history screen to audit or track data modifications. It provides a comprehensive change history, enabling quick identification of potential issues or unauthorized alterations. This Change History screen is available for the following UI screens:

- Shipment Type (IbShipmentTypeView)
- Order Type (OrderTypeView)
- Work Order Type (WorkOrderTypeView)
- Movement Request Type (MovementRequestTypeView)
- Location (LocationViewFW)
- Inventory Lock Code (InventoryLockCodeView)
- Reason Code (ReasonCodeView)
- Users (LgfUserView)
- Endpoint (Endpoint)

To access the Change History screen, from one of the above UI screens, click Change History action button.

Note: The Change History action button varies depending on the UI, as shown in the following table:

• Action Button	• UI Screen
Shipment Type Change History	Shipment Type
Order Type Change History	Order Type
Work Order Type Change History	Work Order Type
Movement Request Type Change History	Movement Request Type
Location Change History	Location
Lock Code Change History	Inventory Lock Code
Reason Code Change History	Reason Code
User Change History	Users
Endpoint Change History	Endpoint

Once you click the action button, the system directs you to a detailed change history screen specific to the selected UI.

The change history screen displays a comprehensive log with the following columns:

- **UI-Specific Column:** Displays the relevant UI entity (Shipment Type, Order Type, etc.).
- **Mod User:** Shows the modifier's username or ID.
- **Action:** Indicates the type of action (create, update, delete) performed.
- **Mod Timestamp:** Timestamp of the modification.
- **Mod Field:** Reason for modification.
- **Create User:** Creator's username or ID.
- **Create Timestamp:** Timestamp of record creation.

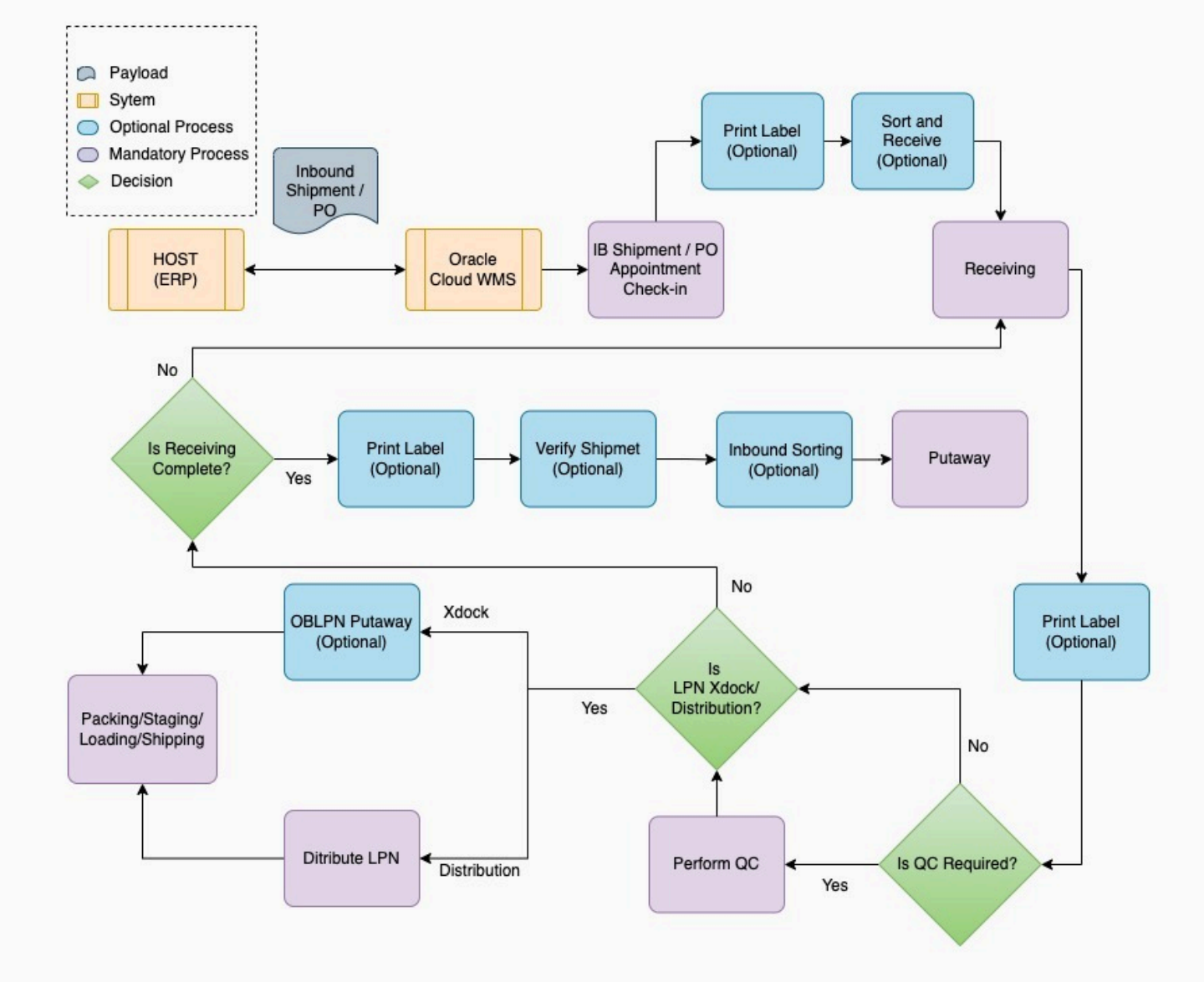
2 Inbound

Inbound Overview

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

- Purchase Order
- Inbound Shipments (Advanced Shipment Notice, Customer Returns, Transfer Order, and Manufacturing completions)
- 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 handheld device to receive items. The following diagram summarizes the receiving process in the Oracle WMS Cloud:



Purchase Orders (PO)

Purchase Orders are entities that capture the details of orders placed by a customer. These orders are placed with vendors for the purchase of a set of items with a given specification,quantity for a a specific price, and delivery timeline.

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):

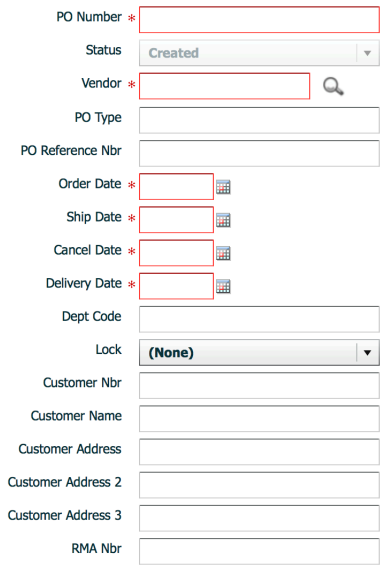
1. The “Shipped Qty” from the ASN detail line for “THK1” will be decreased from 25 to 0.
2. The PO’s “Shipped Qty” is subtracted to reflect this change.
3. The PO’s “Ordered Quantity” are added to reflect this change.

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.

Creating a Purchase Order (PO) Manually

1. Go to the ‘Purchase Order’ UI screen and click the Create (✚) button.
2. Populate all of the applicable fields.



Description of Fields

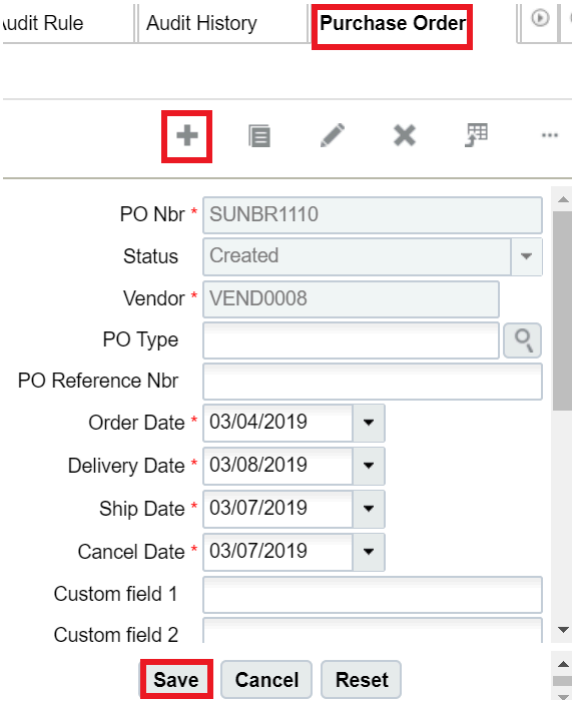
Fields	Description
PO Number	The Purchase Order number
Vendor	The Vendor code in the PO
Order Date	Date when the purchase order was created

Fields	Description
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.



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



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

Quick Receipt in Purchase Order Detail

You can now receive multiple PO records from multiple headers at once via the Purchase Order Details UI without needing to scan the LPNs and perform Mobile PO based receiving or create IB Shipment. The system auto generates an ASN and an LPN number per every quick receipt based on the Sequence counter configurations of Blind LPNs and Blind Receiving Inbound Shipment respectively. After successful completion of receipt, the corresponding IHT is captured.

This provides you with an option to either only receive or receive and putaway in one single operation such that you can quickly receive inventory from trusted suppliers.

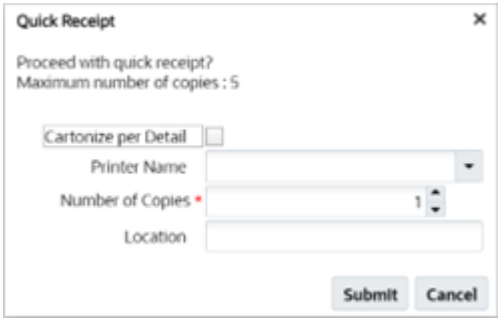
> **Note:** You need to have the "purchase order hdr/Can perform Quick Receipt" permission enabled to perform this action.

To perform quick receiving of Purchase Order details:

1. Go to the Purchase Order UI.
2. Choose one or multiple PO details with the Expensed Destination flag set to No/Blank.

   The system enables the "Quick Receipt" action button.

   > **Note:** If the Expenses Destination flag set to Yes, then the action button is disabled.



3. When you perform a quick receipt for a PO detail whose Expensed Destination flag is set to NO, the system prompts you with a confirmation pop-up providing you with an option to create LPN per details, into a single LPN per receipt and print labels with following fields:
   a. **Cartonize per Dtl**: Enable this checkbox to create one LPN per PO detail. Disable/uncheck will create a single LPN per receipt (all selected PO details go into single LPN).
   b. **Printer Name**: Select the printer's name from the drop-down to print the LPN labels after receipt.

      > **Note:** Here, the LPN will be received first, followed by LPN label generation.

   c. **Number of Copies**: Enter the number of copies.
   d. **Location:** If you choose to proceed without providing the location details, the system will receive the LPN but will not putaway to a location and LPB labels are not generated.

      > **Note:** These fields are non-mandatory. You can proceed with receiving without providing the values in the above fields.

4. Click Submit.

On successful receiving, a confirmation message “LPN %s received” is displayed and on receiving with Location, a confirmation message. **”LPN %s received and located”** is displayed. If the receiving with location is successfully but fails to putaway, then system displays “LPN %s received, putaway failed” message.

For more information, please refer to *Perform Quick Receipt In Puchase Order Detail UI*.

Batch Creating Purchase Orders through Input 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			PO#2
[H2]	1	CREATE	THK04										10	0	
[H2]	2	CREATE	THK02										15	0	
[H1]	POSN100303	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#3
[H2]	1	CREATE	THK03										10	0	

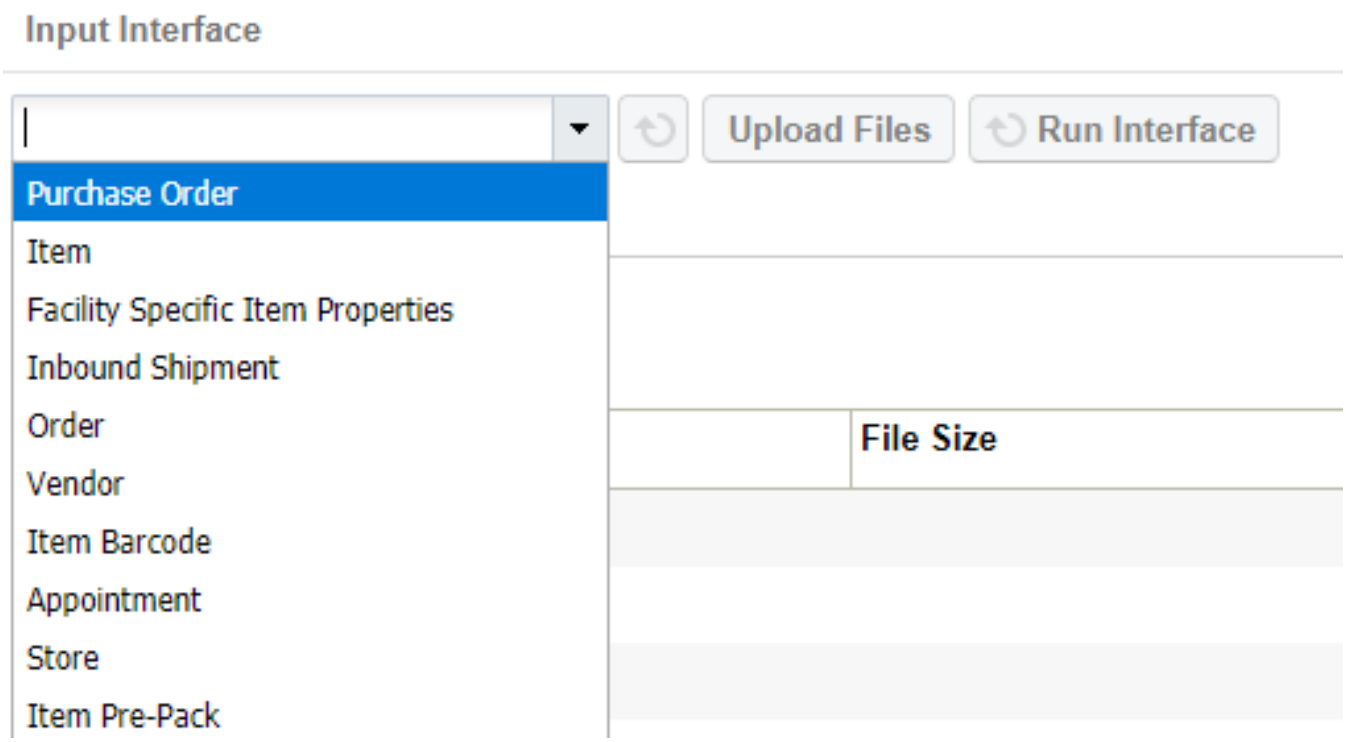
PO#1

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:



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.

Expense Destination Items on Inbound Orders

Inbound orders destined for stocking locations or specific requestors outside of a warehouse are received in WMS and delivered to the respective locations or requestor. This is possible with purchase orders that are meant for expensed destinations for receipt in Cloud WMS and immediately be consumed upon receipt.

For example, the Healthcare industry deals with consumable items like syringes, cottons, and medicines that are often received at the warehouse and then distributed to respective locations such as operation theatres, stores, or

pharmacies. In these scenarios, warehouses might require a mechanism to receive and consume these expensed inventories periodically for every PO detail marked with the expensed flag.

To distinguish an expensed PO sent from Inventory Management, you need to enable the “Expensed destination” flag at the PO detail level. If this flag is checked, it implies that the corresponding PO detail is meant for an expensed destination and is treated for auto consumption upon receipt. The corresponding inventories will not be considered or accounted to the warehouse inventory.

To Enable Expense Destination Receipt

1. Go to Purchase Order PurchaseOrderHdrView > Purchase order Details UI.
2. Click create/edit icon.
3. Check the Expensed destination checkbox.

   > **Note:** Any ASN created from the POs with the flag (enabled/disabled) will replicate the value on the ASN.

4. Enter the requestor name in the Requestor Name field.
5. Enter the requestor’s address in the Requestor Address.

   These fields are optional. However, these columns are available on the ASN details Receiving UI, ASN detail flat view UI grid field, and IBLPN Label Designer UI. If the ASN has the PO reference or a PO detail is fully or partially converted to an ASN, then the values are fetched from the PO detail. The "requestor_name" field is available on the PO detail UI, ASN detail UI, and ASN detail flat view search fields.

   When the receiving expensed destination, the system displays a confirmation message with the requestor name, “Expensed inventory received in %LPN and to be delivered to %Requestor name”. This helpsyou to deliver the expensed inventory to the right point of contact.

   > **Note:** These fields can be edited in the PO detail only via UI and JSON format. These fields are not exposed in the existing PO interface formats (XML, CSV, PSV).

6. Click Save.

For more information, please refer to *Receive Expense Destination Items On Inbound Order*.

Expense Destination Items on Purchase

For orders destined for locations or requesters outside the warehouse, goods can be received at the warehouse dock and manually issued to their destination. Expensed destination purchase orders and transfer orders from Oracle Cloud Inventory Management are supported for receipt in Cloud WMS. Upon receipt, these items are immediately auto consumed, and the WMS sends the auto consumed information to Inventory Management.

An **Expensed Destination** flag has been added at the Purchase Order level to identify expensed items and enable automatic consumption upon receipt.

When processing an expensed destination receipt (PO), the system receives and consumes the LPN, generating an **IHT-1 (LPN Received)** record which is sent to Fusion for receiving receipt confirmation.

Fusion can identify whether the PO/ASN is received in WMS from the receiving receipt confirmation.

- **Requestor Details**

Three new fields have been added to the PO Interfaces:

- **expensed_destination_flg**
- **Requestor Name** (250 characters)

- **Requestor Address** (250 characters)

These are available in XML, XLS, and PSV formats, allowing CREATE/UPDATE operations and will also appear in the **Inbound Shipment Stage table**.

Note: If an expensed detail has a Lock Code, the corresponding LPN inherits the same code and is auto consumed.

- **Expensed Destination Receiving Metrix:**

Receiving Method	Condition	Displayed Message
PO UI-Based Receiving	Destination Type = Expensed; Requestor Name populated	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
PO UI-Based Receiving	Requestor Name/Address not populated; multiple requestors in LPN	Expensed inventory received and consumed in LPN: %LPN_NBR
ASN UI-Based Receiving	Destination Type = Expensed; Requestor Name populated	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
ASN UI-Based Receiving	Requestor Name/Address not populated; multiple requestors in LPN	Expensed inventory received and consumed in LPN: %LPN1, %LPN2
Mobile Device-Based Receiving (ASN, PO, Load)	Destination Type = Expensed; Requestor Name populated	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
Mobile Device-Based Receiving (ASN, PO, Load)	Requestor Name/Address not populated; multiple requestors in LPN	Received LPNs are consumed to expensed destination

- **Message Format Details**

Scenario	Displayed Message
Single LPN Received	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
Multiple LPNs Received	Expensed inventory received in %LPN_count(s) LPNs and to be delivered to %Requestor name, %Requestor address

Note:

- The message displays only for Expensed Destination receipts.
- Requestor Name and Address must be populated.
- If multiple requestors exist in a single LPN, the system displays the standard message instead.
- Applies to PO, ASN, and Mobile Device-based receiving workflows.

Perform Expensed Destination Receipt Action Button

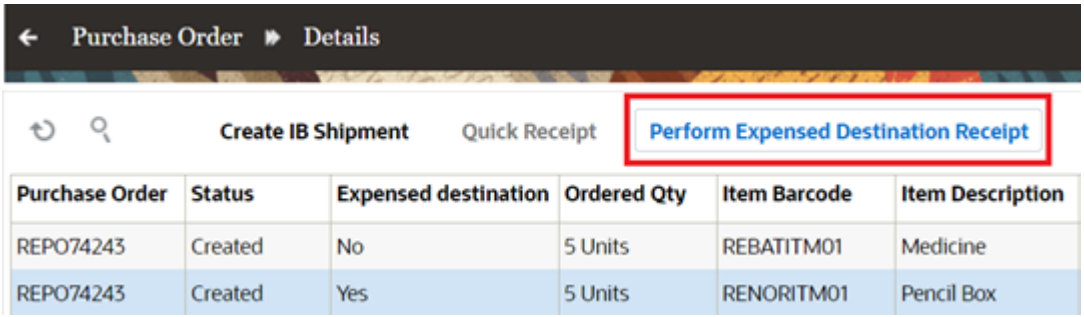
You can receive expensed destination receipt through the action button “Perform Expensed Destination Receipt”. This helps you to receive PO details record from the PO Detail screen and is disabled, by default. On selecting one or multiple PO details with the Expensed Destination flag set to Yes, the system enables the “Perform Expensed Destination receipt” action button.

To perform expensed destination receipt, do the following steps:

1. Navigate to Purchase Order > Purchase Order Details UI.

   > **Note:** The Perform Expensed Destination Receipt action button is access controlled and requires enabling the permission “permission “purchase order hdr/Allow Expensed Destination Receipt” to perform the transaction”.

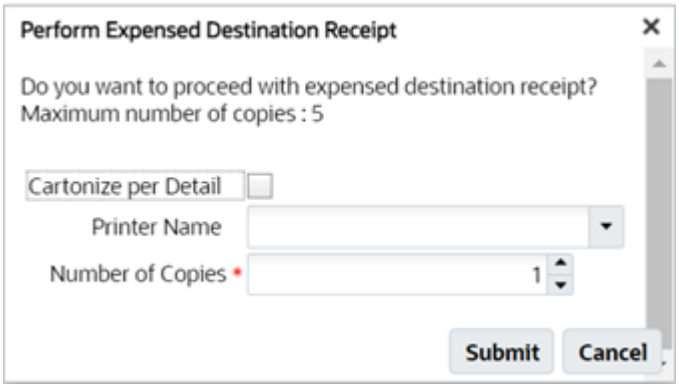
2. Select the PO details with expensed destination flag = Yes, to perform Expense Destination receipt.



   You can now multi-select PO details that are enabled with the Expensed destination flag and can perform the Expensed destination receipt from the PO detail UI screen. This action is enabled only for receiving expensed destination PO details.

   > **Note:** The Perform Expensed Destination Receipt action button is access controlled and requires enabling the permission “purchase order hdr/Allow Expensed Destination Receipt” to perform the transaction.

3. A Perform Expensed destination receipt window pops-up, enter information for the following fields:



   - **Cartonize per Dtl**: Enabling this checkbox allows you to create one LPN per PO detail.
     Disable/uncheck will create a single LPN per receipt (all selected PO details go into single LPN). However, the auto-generated LPN are auto consumed.
   - **Printer Name**: Select the printer's name to print the LPN labels after receipt.
     Here, the LPN will be received first, followed by LPN label generation, and then auto consumption.
   - **Number of Copies**: Enter the number of copies.
     These fields are non-mandatory. You can proceed with receiving without providing the values in the above fields.

4. Click Submit.

All the inventories of the expensed PO details received via this action button are auto consumed. On proceeding, the system auto generates an ASN and an LPN number per receipt based on the Sequence counter configurations of Blind LPNs and Blind Receiving Inbound Shipment respectively. On successful receipt, the IHT-1-LPN Received and IHT-2-Container Consumed are captured.

AUTO-CONSUMPTION OF INVENTORY FROM ASN DETAIL RECEIVING

You can auto consume non-cartonized expensed ASN line from the following ASN UI receipt flows:

- Perform Detailed Receiving
- Receive Entire Shipment
- Receive LPN

> **Note:** On Purchase order detail, the Expensed destination flag can be updated until the PO detail is subjected to receiving (has 0 as the receive qty). Therefore, when an ASN is converted from the PO detail, the system updates the latest status of the Expensed destination flag on the corresponding PO detail to proceed with auto consumption.

ASN RECEIVING And LOAD RECEIVING

WMS can auto consume ASN details marked with the expensed flag via the following Mobile receiving transactions:

- ASN Receiving
- PO Receiving
- Load Receiving

On performing Receiving- ASN/Load, or PO, the system restricts mixing of expensed or non-expensed inventories in a single IBLPN.

The system auto consumes before the corresponding LPNs are picked by flowthrough or Xdock in case there is a matching order available. When LPNs are received and consumed for expensed details, the system displays new message “LPN % received and consumed to expensed destination”. If requestor_name is populated at LPN level, the system displays “Expensed inventory received in %LPN and to be delivered to %Requestor name”.

For more information, please refer to the *24C What's New*.

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.
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.

Perform Undo Verify with Action Button

An action button "Undo Verify" on the **Inbound Shipment Inquiry** UI allows you to perform undo verification operation of an Inbound Shipment from ASN Inquiry.

> **Note:** The "Undo Verify" is applicable for Inbound Shipment with the status "Verified". To enable the "Undo Verify", do the following:
>
> 1. Go to **Group Configuration** UI.
> 2. Check the "IB shipment / Can Undo Verify" check box to enable "Undo Verify" permission.

> **Note:** Users with eligible user-role permissions can access this button.

The "Undo Verify" operation is valid under following conditions:

- If any Inbound LPN's modified timestamp is greater than the shipment verification time stamp, then the system does not proceed with Undo Verification and displays the error "Operations performed post Verification, cannot undo verify".
- If the underlying shipment type has the field "Unallocated order details to cancel on ASN verify mode" = any value other than None, then the system does not proceed with the Undo Verify operation.

Create Inbound Shipment

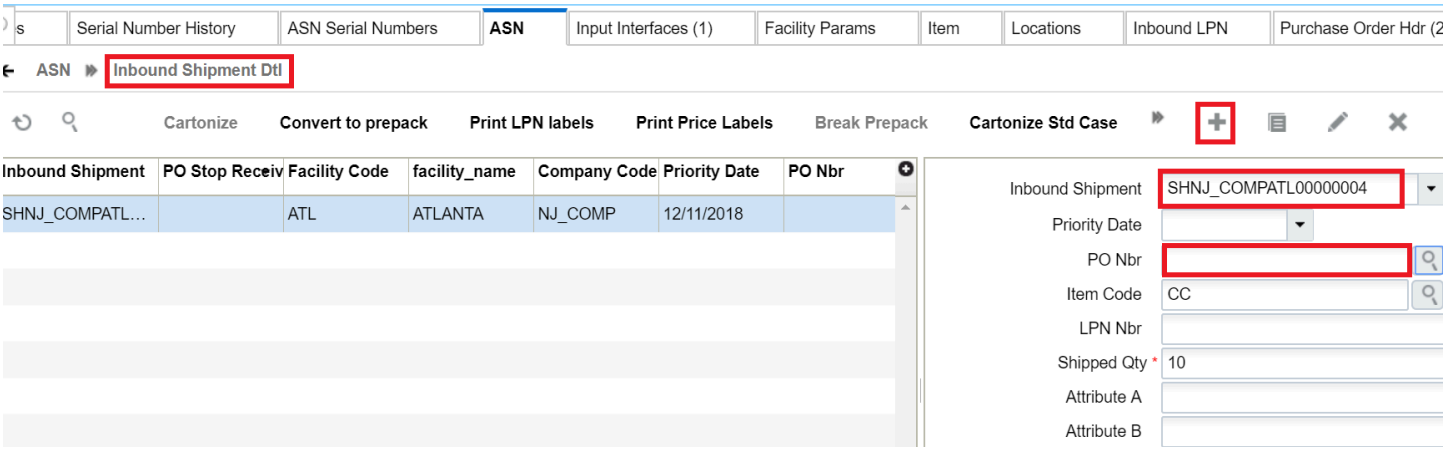
The following are different ways that you can create an Inbound shipments in WMS:

Method	Description
Manual Creation	You can manually create an inbound shipment in Oracle WMS by navigating to the "Inbound Shipments" screen and providing the necessary details. This includes information such as the shipment name, expected arrival date, shipping method, and delivery address. You can also specify the items expected in the shipment, their quantities, and any relevant purchase order details.
Purchase Order Receipt	Inbound shipments can be automatically generated from purchase order receipts. When a purchase order is created and received in Oracle WMS, you have the option to create an inbound shipment directly from the purchase order receipt transaction. The system will use the purchase order information, such as the expected delivery date and shipping details, to populate the inbound shipment details.
API	Oracle WMS provides specific APIs for creating inbound shipments. Review the available APIs and select the one that matches your requirements. For example, you can query You can query the IB Shipment entity to find out the LPN Count and Shipped Quantity for a specific shipment. The LPN Count and Shipped Quantity fields are added in the response when you pass GET method (IB Shipment API) for Cartonized Shipments.
Manual Input Interface Upload	You can use the **Input Interface** to prepare a data file, typically in a CSV (Comma-Separated Values) or Excel format, containing the inbound shipment details. Map the columns in your data file to the corresponding fields in the template. Make sure your data adheres to the template's structure and format, including data types, lengths, and any specific requirements, such as date formats or code values.

Method	Description

You can efficiently create inbound shipments by uploading structured data files. This method streamlines the data entry process, reduces manual errors, and enables you to manage inbound logistics processes more effectively. See *Uploading Interface Files with WMS* for more details.

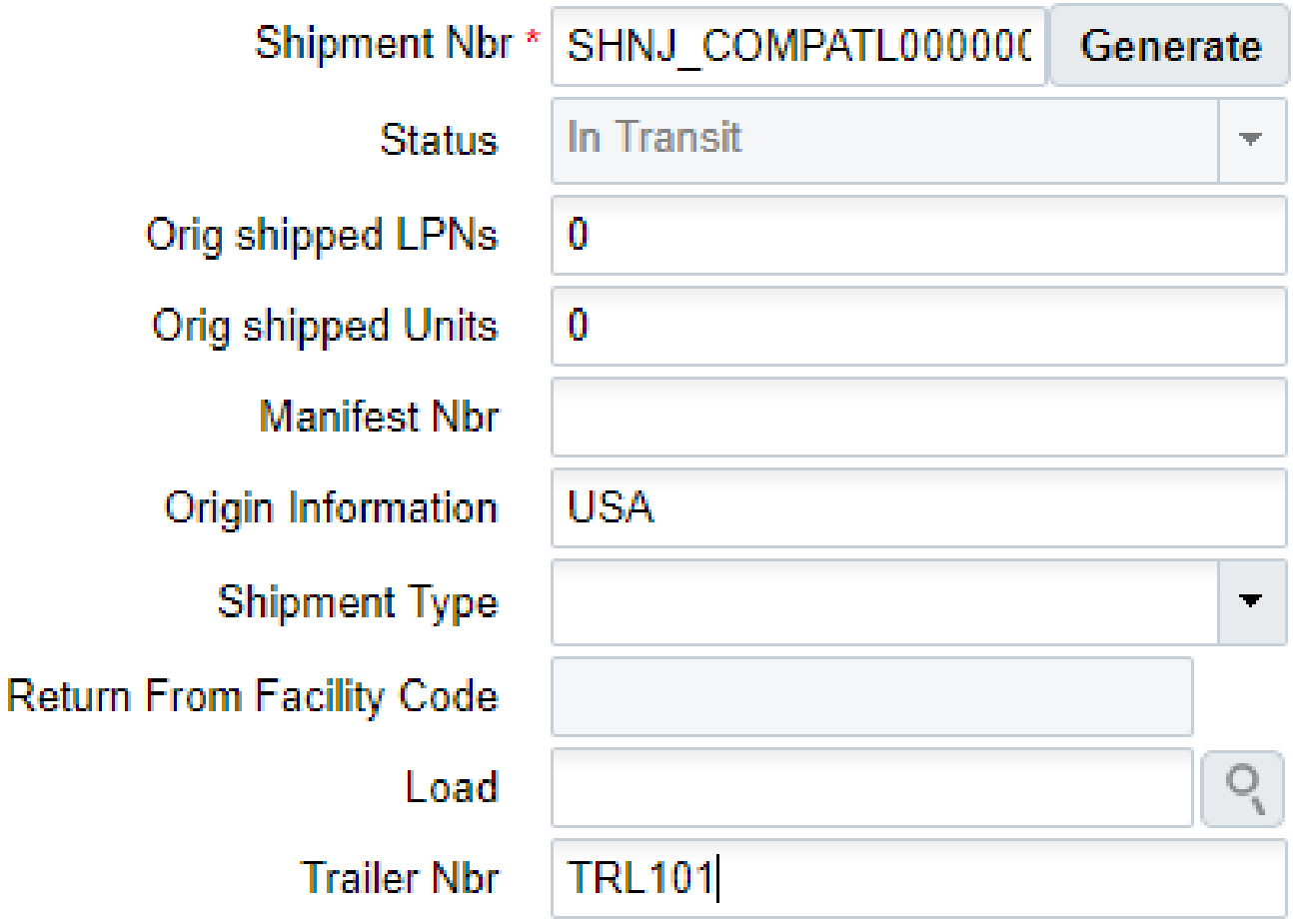
In the Create/Edit/Copy Panes of the Inbound Shipment Detail UI, you can add a Purchase Order and the application will copy the inventory attributes (a-g) from the PO to the inbound shipment.



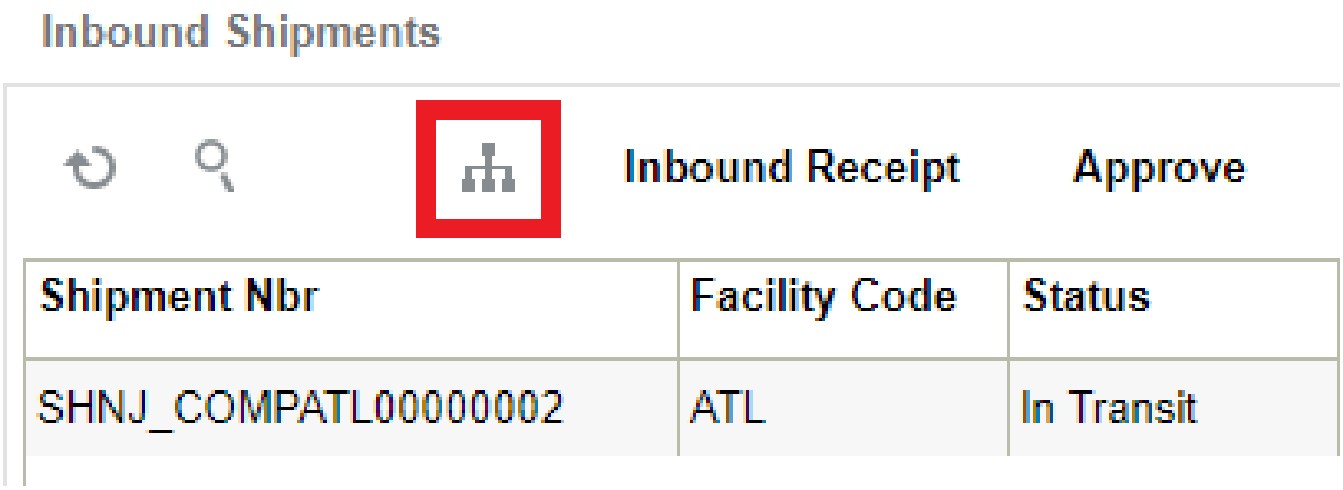
Creating ASNs Manually (UI)

1. Go to the “Inbound Shipments” screen and click the Create button (✚) to create an ASN header.

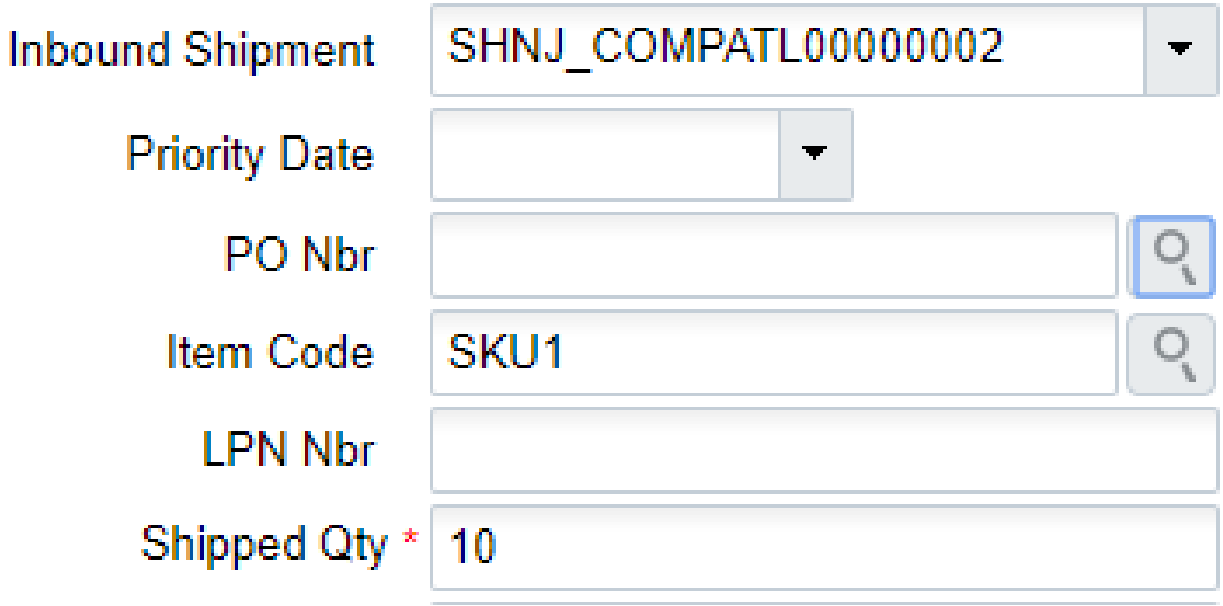
2. Populate the appropriate information for the ASN record.



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.



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	ASN#1
[H2]	1	CREATE				THK01								10	
[H1]	ASN2	DC_01	SNEPHEW	TRL2	CREATE		DOMESTIC				VENDOR	US	20141002		
[H2]	1	CREATE	LPNXD100212			THK02								10	ASN#2
[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

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

ASN Integration with Oracle WMS Cloud

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

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

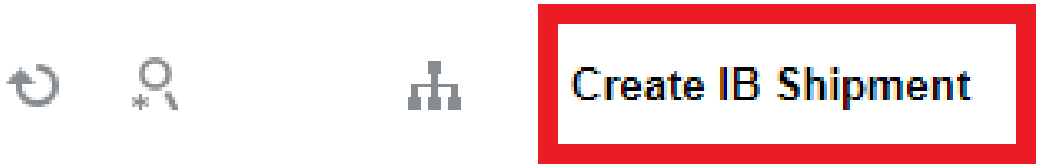
Creating ASNs from existing PO records

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

From the PO Header Screen

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

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



Facility	PO Nbr	Status	Vendor Name
LGF-WAREH...	12345678	Created	Full metal Alc...

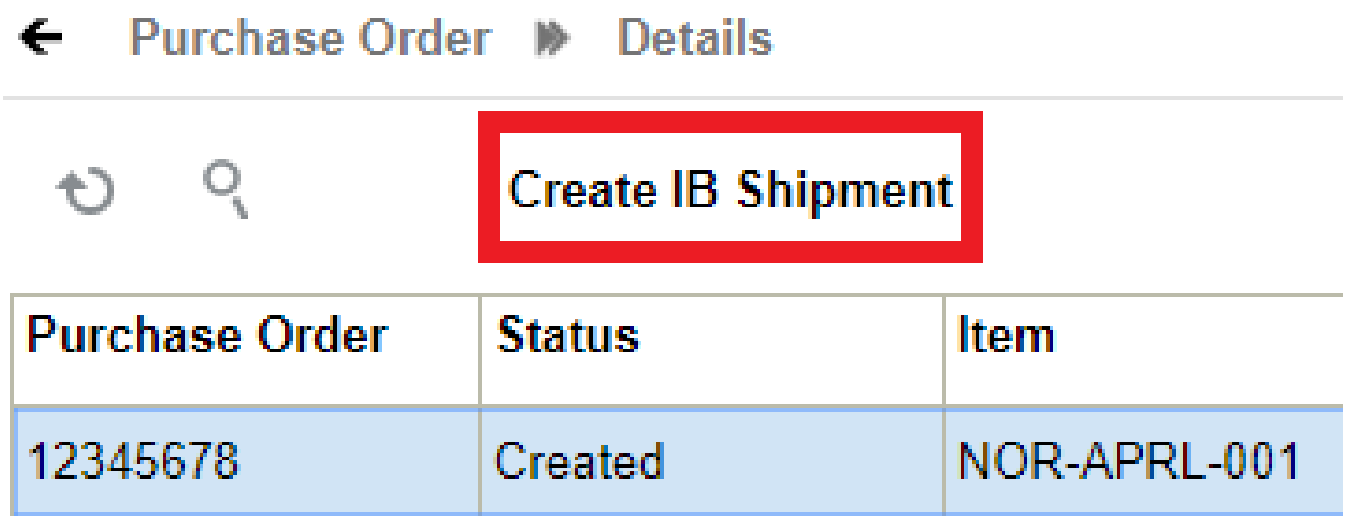
4. The system will return a message saying “Successfully created IB Shipment [ASN Number] from PO”. The ASN number created by the system is based on a sequence counter from the “IB Shipment” record in the “Sequence Counters” screen.

From the PO Detail Screen

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

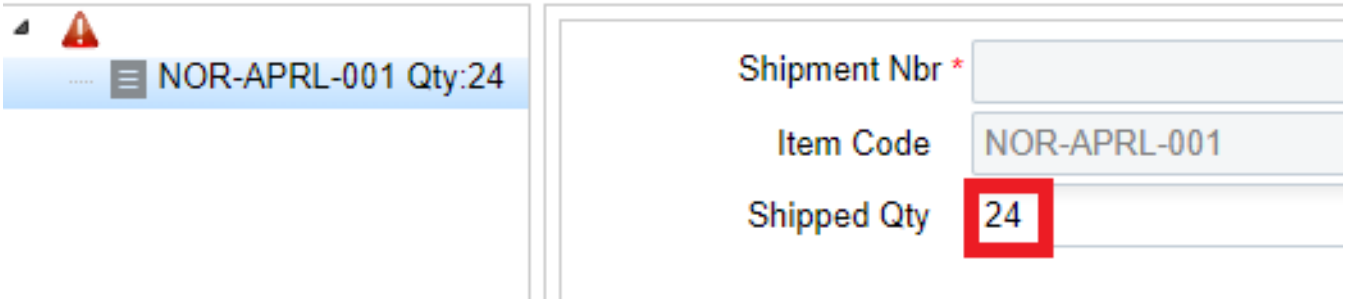
1. Go to the “Purchase Orders” screen.
2. Select the PO record and click on its Details.

3. Select the specific Item lines that are used for the new ASN and click the “Create IB Shipment” button.

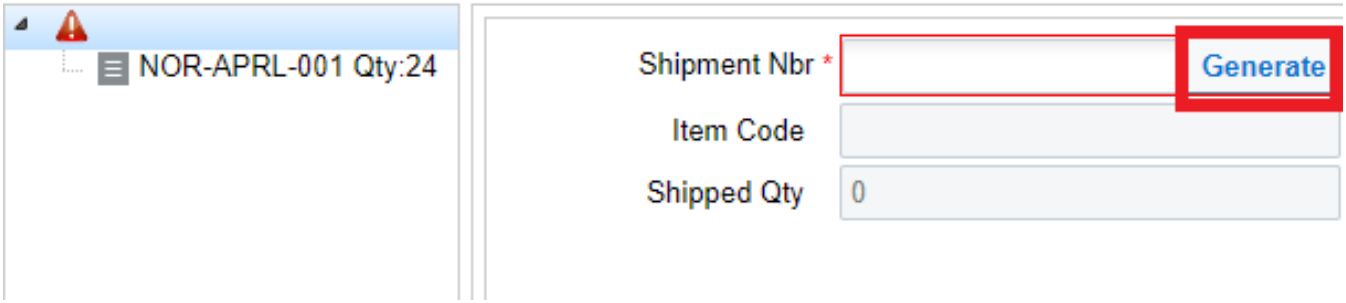


Note: the “Shipped Qty” will be zero until there are ASNs created for them.

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.



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



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

IB Shipment	Item	Batch	Inv Attr A	Serial Number
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 Mobile Receive Shipment and Mobile 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.),

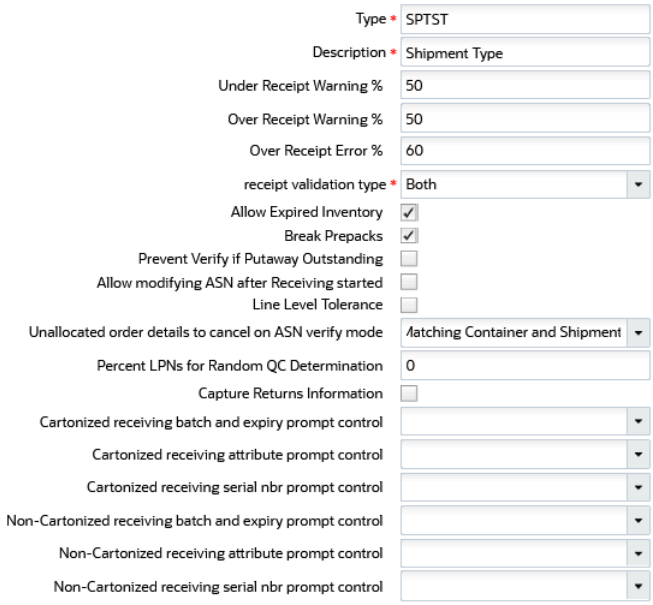
Note: The above warning message can also be configured as a hard error.

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.



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.
Allow modifying ASN after Receiving started	On enabling this flag, the system allows you to modify shipments in the **IB Shipment Details** screen, once receiving has started (Receiving Started/Receiving Complete). You can edit the Shipment if it has an IB Shipment type configured with this flag enabled.
Line Level Tolerance	On enabling the flag, based on the “Receipt Validation Type”, the system considers the line level tolerances configured in the Purchase Order Detail or Shipment Detail. If you disable the flag, the system defaults the flow where the tolerance is considered from the **Shipment Type** UI.
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.

Under Receipt and Over Receipt Warning or Error Messages Trigger Points

For Under Receipt and Over Receipt fields, the value entered is NOT the cut off point for triggering the warning/error messages.

- For Under Receipt, the system will only trigger the warning message if receiving BELOW the input value.
- For Over Receipt, the system will only trigger the warning/error message if receiving ABOVE the input 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 system will display an under-receipt warning message.
- If the user receives 110 units, the system will **not** display an over-receipt warning message.
- If the user receives 111 units, the system will display an over-receipt warning message.
- If the user receives 120 units, the system will **not** display an over-receipt error.

The fields “Over Receipt Warning %”, “Over Receipt Error %”, and “'Under Receipt Warning %” in the **Shipment Type** UI are non-mandatory fields. You can configure these values with a “Blank” value (default value).

On configuring the blank values, the behavior of percentages follows as mentioned in the below example.

Example: Purchase Order (PONBR-01) has an Item (SKU-A) of quantity 100 where the Receipt Validation Type is Purchase Order / Shipment / Both.

"Over Receipt Warning %" and "Over Receipt Error %" behavior:

Over Receipt Warning %	Over Receipt Error %	Behavior
0	0	On receiving more than 100 quantities of SKU-A, the system displays over-receipt error message.
0	10	On receiving more than 100 quantities of SKU-A, the system displays over-receipt warning message. On receiving more than 110 quantities of SKU-A, the system displays over-receipt error message.
10	20	On receiving more than 110 quantities of SKU-A, the system displays over-receipt warning message. On receiving more than 120 quantities of SKU-A, the system displays over-receipt error message.
Blank	Blank	On receiving more than 100 quantities of SKU-A, the system displays over-receipt warning message. But you can rece ordered quantity (100).

Over Receipt Warning %	Over Receipt Error %	Behavior
0	Blank	On receiving more than 100 quantities of SKU-A, the system displays over-receipt warning message. But you can rece ordered quantity (100).
Blank	10	On receiving more than 110 quantities of SKU-A, the system displays over-receipt error message.
10	Blank	On receiving more than 110 quantities of SKU-A, the system displays over-receipt warning message. But you can rece ordered quantity (110).

"Under Receipt Warning %" behavior:

Under Receipt Warning %	Behavior
10	On receiving less than 90 quantities of SKU-A, the system displays under-receipt warning message on verifying the shipment.
Blank	On receiving less than 100 quantities of SKU-A, the system displays under-receipt warning message on verifying the shipment.
0	On receiving less than 100 quantities of SKU-A, the system displays under-receipt warning message on verifying the shipment.

Set Line Level Tolerance in Purchase Order Detail/Shipment Detail

You can set the tolerance limit at Line Level for the items in the Purchase Order (PO) or Inbound Shipment. This ensures, that you can receive a specific SKU in the order with your required line level tolerances, thereby giving you greater flexibility in your receiving operations. Using this feature, you can prevent overpayment to vendors for receiving excess quantity beyond the PO or Shipment level tolerance and to prevent over receiving of specific items due to warehouse space limitations.

To configure the line level tolerances, do the following:

1. Go to the **Shipment Type** UI.
2. On the Create or Edit pane, for a shipment type, enter all details and enable the “Line Level Tolerance” flag.

   > **Note:** For considering line level tolerance, you must enable the “Line Level Tolerance” flag. If you disable the flag “Line Level Tolerance”, the system defaults the flow to consider the tolerance limits from the **Shipment Type** UI.

3. Click **Save**.

On enabling the flag, based on your input in the “Receipt Validation Type” field, the system considers the line level tolerances configured in the **Purchase Order Detail** or **IB Shipment Detail**.

The following table explains the behavior of Line Level tolerance consideration versus “Receipt Validation Type” in the **Shipment Type** UI.

Receipt Validation Type	Line Level Tolerance Consideration
Purchase Order	The system considers the Line Level Tolerance configured on the **Purchase Order Detail** screen.
Shipment	The system considers the Line Level Tolerance configured on the **IB Shipment Detail** screen.

Receipt Validation Type	Line Level Tolerance Consideration
Both	The system considers the Line Level Tolerance from both configured on the **Purchase Order Detail** and **IB Shipment Detail** screen. The system compares both PO and IB Shipment line level tolerances and considers the lowest Error % and Warning % for receiving.

After enabling the “Line Level Tolerance” flag, to add the line level tolerance, do the following:

1. Go to the **Purchase Order Detail** or **IB Shipment Detail** UI (as per your requirement to configure the line level tolerance).
2. For configuring the line level tolerances for a specific item, on the Create or Edit pane add integer values in the “Warning %” and “Error %” fields.

   Note:
   - “Warning%” must be less than “Error %”.
   - By default, the field values for “Warning %” and “Error %” are blank.

3. Click **Save**.

The system considers these line level tolerance values for items while receiving.

Note: If you create an IB Shipment from the **Purchase Order Header** or **Purchase Order Detail** UI with the “Warning %” and “Error %” values, then the system copies the same “Warning %” and “Error %” values to the **IB Shipment Detail** UI from the **Purchase Order Header** or **Purchase Order Detail** UI. You can override these values in the respective UIs.

Additionally, you can add these “Warning %” and “Error %” at the detail level for xls, xml, and psv formats on the **IB Shipment Interface** and **Purchase Order Interface**. You can perform Create/Update/Delete actions on these fields via the **Purchase Order Input Interface** (through POS - Purchase Order Hierarchical or POD - Purchase Order Detail files) and **IB Shipment Input Interface** (through ISS - Inbound Shipment (ASN) Hierarchical or ISL - Inbound Shipment (ASN) Detail files).

Also, Purchase Order and IB Shipment entities for **INIT_STAGE_INTERFACE** API support fields “warning_percentage” and “error_percentage”. On passing the “warning_percentage” and “error_percentage” fields, the system populates these values in the **Purchase Order Detail** or **IB Shipment Detail** UI.

Note:

- When a Purchase Order is interfaced, the system creates an Inbound Shipment with the "Warning %" and "Error %" values available on the Purchase Order (when facility parameter “CREATE_ASN_FOR_EACH_PO” is set to yes).
- When an Inbound Shipment is interfaced with PO Number and PO Sequence, then the system populates the IB Shipment with the same “Warning %” and “Error %” available on the Purchase Order.
- Line level tolerances is supported for detailed receiving. You can configure the line level tolerance to perform detail receiving.

After configuring the “Line Level Tolerance” flag and setting the “Warning %” and “Error %” at the line level for each SKU or for the same SKU containing different lines, the system receives the inventory based on the Line level tolerance set at the detail level. For more details on receiving, refer *Receiving* section.

Example 1:

Consider a shipment (SHIPMENT-1) linked with PO (PO-1) is created with the following tolerances (Receipt Validation Type is Purchase Order, “Line Level Tolerance” flag is enabled, and tolerances are configured on the **Purchase Order Detail** screen).

PO Number	Item	Ordered Quantity	Received Quantity	Host Sequence Number	Warning %	Error %
PO-1	SKU-A	100	0	1	10	20
PO-1	SKU-B	100	0	2	20	30

If you are receiving the shipment (SHIPMENT-1) with the following quantities, the system behaves as mentioned below:

Shipment Number	PO Number	Item	Ordered Quantity	Host Sequence Number	Warning %	Error %	Received Quantity	Behavior
SHIPMENT-1	PO-1	SKU-A	100	1	10	20	<111	The system receives the quantity without any error.
							>110 and <121	The system displays the warning message.
							>120	The system displays the error message.

Shipment Number	PO Number	Item	Ordered Quantity	Host Sequence Number	Warning %	Error %	Received Quantity	Behavior
SHIPMENT-1	PO-1	SKU-B	100	2	20	30	<121	The system receives the quantity without any error.
							>120 and <131	The system displays the warning message.
							>130	The system displays the error message.

Example 2:

Consider a shipment (SHIPMENT-1) is created with the following tolerances (Receipt Validation Type is Shipment, “Line Level Tolerance” flag is enabled, and tolerances are configured on the **IB Shipment Detail** screen).

Shipment Number	Item	Ordered Quantity	Received Quantity	Host Sequence Number	Warning %	Error %
SHIPMENT-1	SKU-A	100	0	1	10	20
SHIPMENT-1	SKU-B	100	0	2	20	30

If you are receiving the shipment (SHIPMENT-1) with the following quantities, the system behaves as mentioned below:

Shipment Number	Item	Ordered Quantity	Host Sequence Number	Warning %	Error %	Received Quantity	Behavior
SHIPMENT-1	SKU-A	100	1	10	20	<111	The system receives the quantity without any error.
						>110 and <121	The system displays the warning message.
						>120	The system displays the error message.
SHIPMENT-1	SKU-B	100	2	20	30	<121	The system receives the quantity without any error.
						>120 and <131	The system displays the

Shipment Number	Item	Ordered Quantity	Host Sequence Number	Warning %	Error %	Received Quantity	Behavior
							warning message.
						>130	The system displays the error message.

Note:

- When you receive a shipment with the same SKU and different lines linked to a PO, then the system updates the inventory based on the "*prompt-po-seq-line*" (PO Sequence/PO line schedule) parameter. If the parameter is not set, then the system displays an error message "Multiple details for the same SKU present, cannot perform Line Level Tolerance". For more details on "*prompt-po-seq-line*" parameter, refer to "Prompt for PO Sequence Number/PO Line Schedule Number" topic in the *PO Based Receiving* section.
- In the above case, if you receive the shipment using **Receive By Shipment** mobile transaction (not PO Based Receiving), then the system displays an error message "Multiple details for the same SKU present, cannot perform Line Level Tolerance".
- When the screen parameter "*prompt-po-seq-line*" = Blank, the system does not support Inventory distribution.

The system allows creation of an IB Shipment with the same SKU having the same tolerances with different lines (when line level tolerance is configured). You can create an IB Shipment (with or without Purchase Order) with the same SKU having the same tolerances with different lines using **IB Shipment** UI, IB Shipment interface, or IB Shipment **INIT_STAGE_INTERFACE** API.

Note:

- Line level tolerance is not supported when a shipment without PO contains the same SKU across multiple lines. In this case, the system applies tolerance at the item level.
- If you create multiple details for a single SKU having different warning% and error %, the system displays an exception "Conflicting shipment detail found for the SKU: Item code with line level tolerance configured".

Example 3:

Consider a shipment (SHPMNT-1) linked with PO (PO-1) is created with the following line level tolerances (same tolerance limits).

Shipment Number	PO Number	Item	Shipped Quantity	PO Sequence	Warning %	Error %
SHPMNT-1	PO-1	SKU-A	50	1	10	20
SHPMNT-1	PO-1	SKU-A	50	2	10	20

As line level tolerances are same for both shipment details of SKU-A, the system considers the shipped quantity as 100 (for SKU-A) with warning % = 10% and error % = 20%. So, you can receive a maximum quantity of 120 units. Here, the system doesn't apply line level tolerance.

After configuring the “Line Level Tolerance”, you can receive the inventory via **Sort and Receive (rf.inbound.cwrfsortandrecv)** transaction also. For more details on receiving during **Sort and Receive** transaction, refer *Sort and Receive* section.

For example, consider that you are performing **Sort and Receive** transaction for a shipment SHPMNT-001 with the following shipment details (Shipment type is configured with Receipt Validation Type - Shipment and line level tolerance is enabled).

Shipment	Purchase Order	Item	Shipped Quantity	Shipment Type	Warning %	Error %
SHPMNT-001	PONBR-001	SKU-A	100	SHPTY-001	10	20
SHPMNT-001	PONBR-001	SKU-B	100	SHPTY-001	20	30

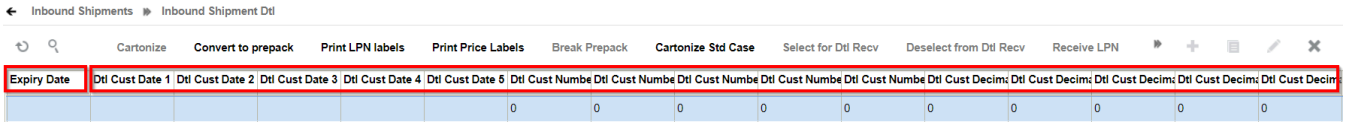
Based on the line level tolerance, you can receive a maximum quantity of 120 for SKU-A and 130 for SKU-B. Post performing the **Sort and Receive** transaction, the system updates the shipment details as follows:

Shipment	Purchase Order	Item	Shipped Quantity	Received Quantity	Tote	Shipment Type	Warning %	Error %
SHPMNT-001	PONBR-001	SKU-A	100	120	TOTE-001	SHPTY-001	10	20
SHPMNT-001	PONBR-001	SKU-B	100	130	TOTE-002	SHPTY-001	20	30

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 Detail**UI.



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

Fields	Description
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

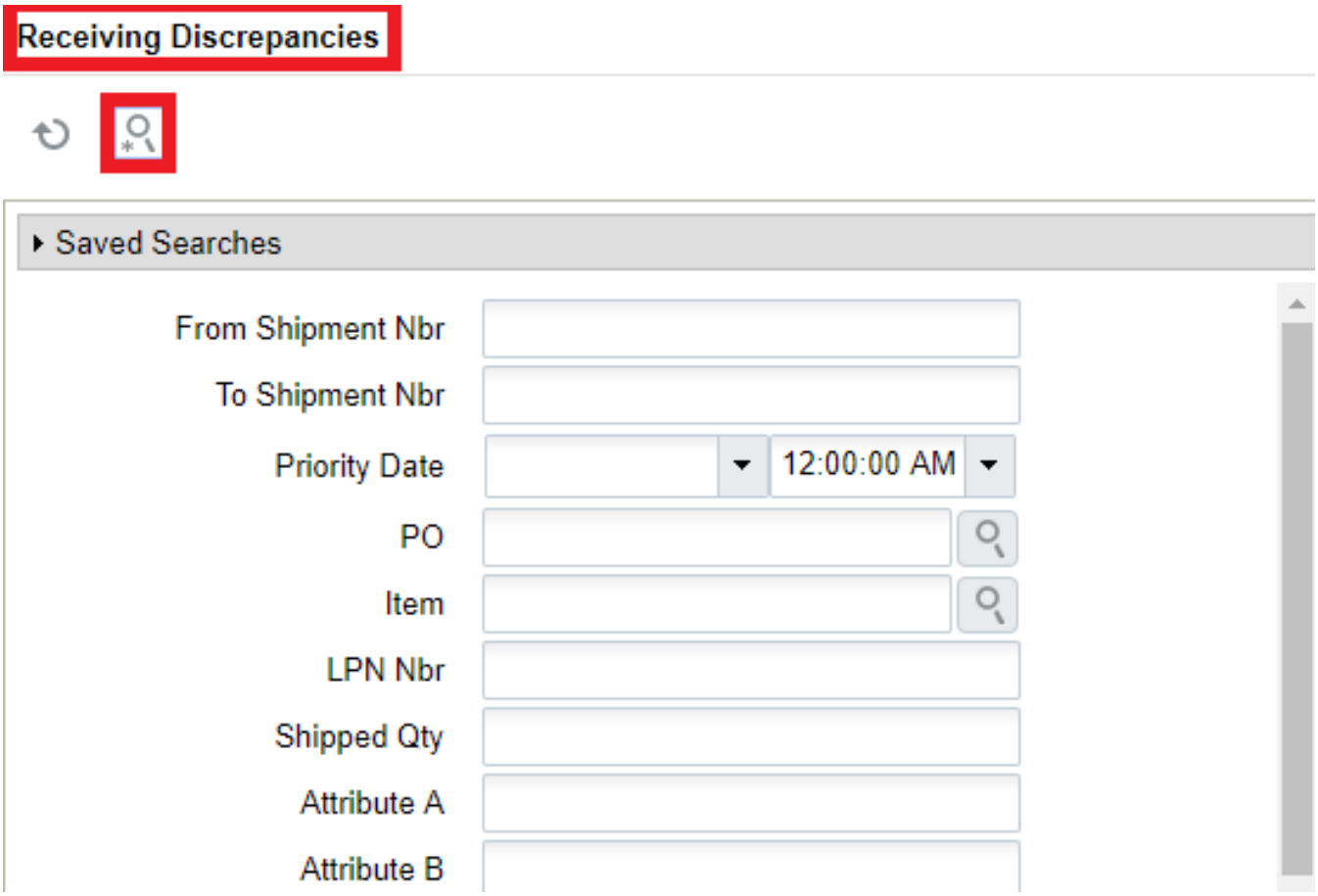
The Receiving Discrepancies screen displays the IB shipment header and custom field details information:

1. Add the “Receiving Discrepancies” module to your screen.
2. Launch the UI.

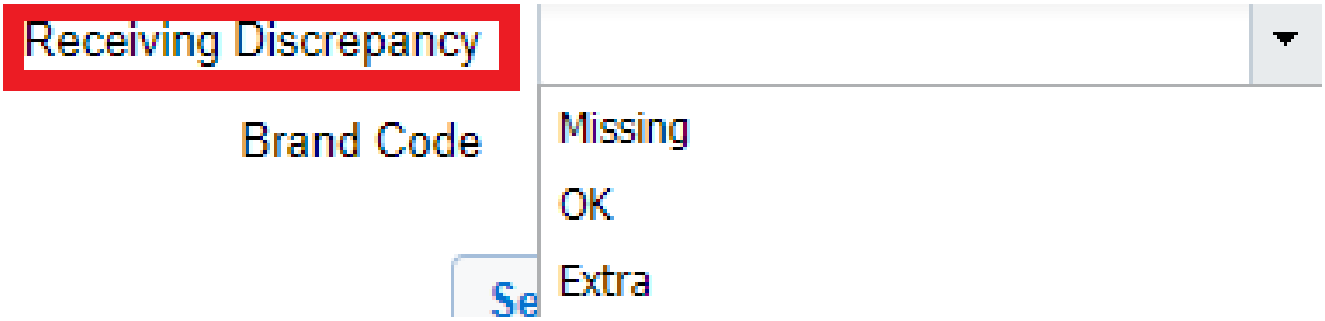
3. Select the IB shipment and scroll through the page to view the custom field information.



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.



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



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

Mass Update - Pallet Number

Cartonized LPNs are required to be organized onto pallets in the warehouse for storage. If a vendor does not send the pallet number, you can manually assign the pallet number to the cartonized shipment information.

In the **Inbound Shipments (IBShipmentView) > Inbound Shipment Detail** screen, you have the option to update the Pallet Number for multiple shipment records at once using the **Mass Update - Pallet Number** action button.

To update a pallet number on multiple shipment details, do the following:

1. On the **Inbound Shipments (IBShipmentView) > Inbound Shipment Detail** screen, select the desired IB Shipment details and then click the **Mass Update - Pallet Number** action button.

   The system displays a pop-up message to confirm.
2. On the confirmation pop-up message, click **Ok**.

3. Enter a pallet number to update and click **Submit**.

   The system displays a confirmation message with the number of LPN records that are updated with the pallet number. If the selected LPN records are invalid (for example - the LPN record selected is already received), the system displays a count of failed records.

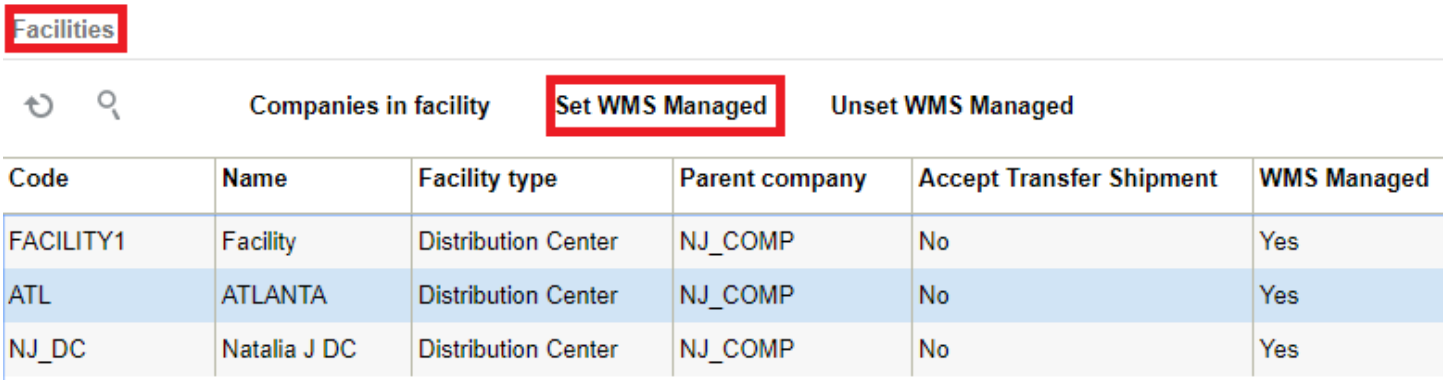
Transfer Inventory between WMS Managed Facilities

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

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

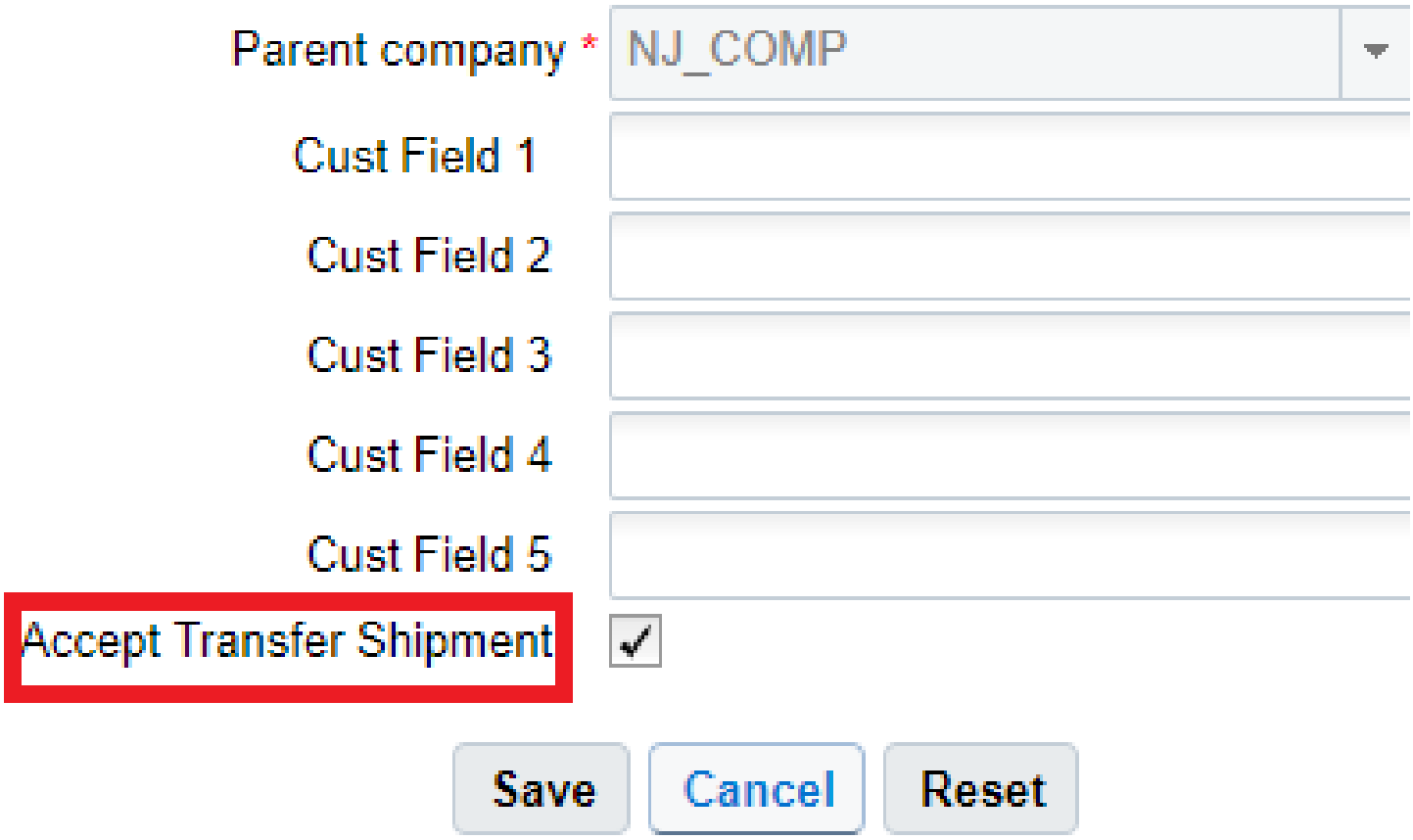
The destination facility must have the following settings:

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



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

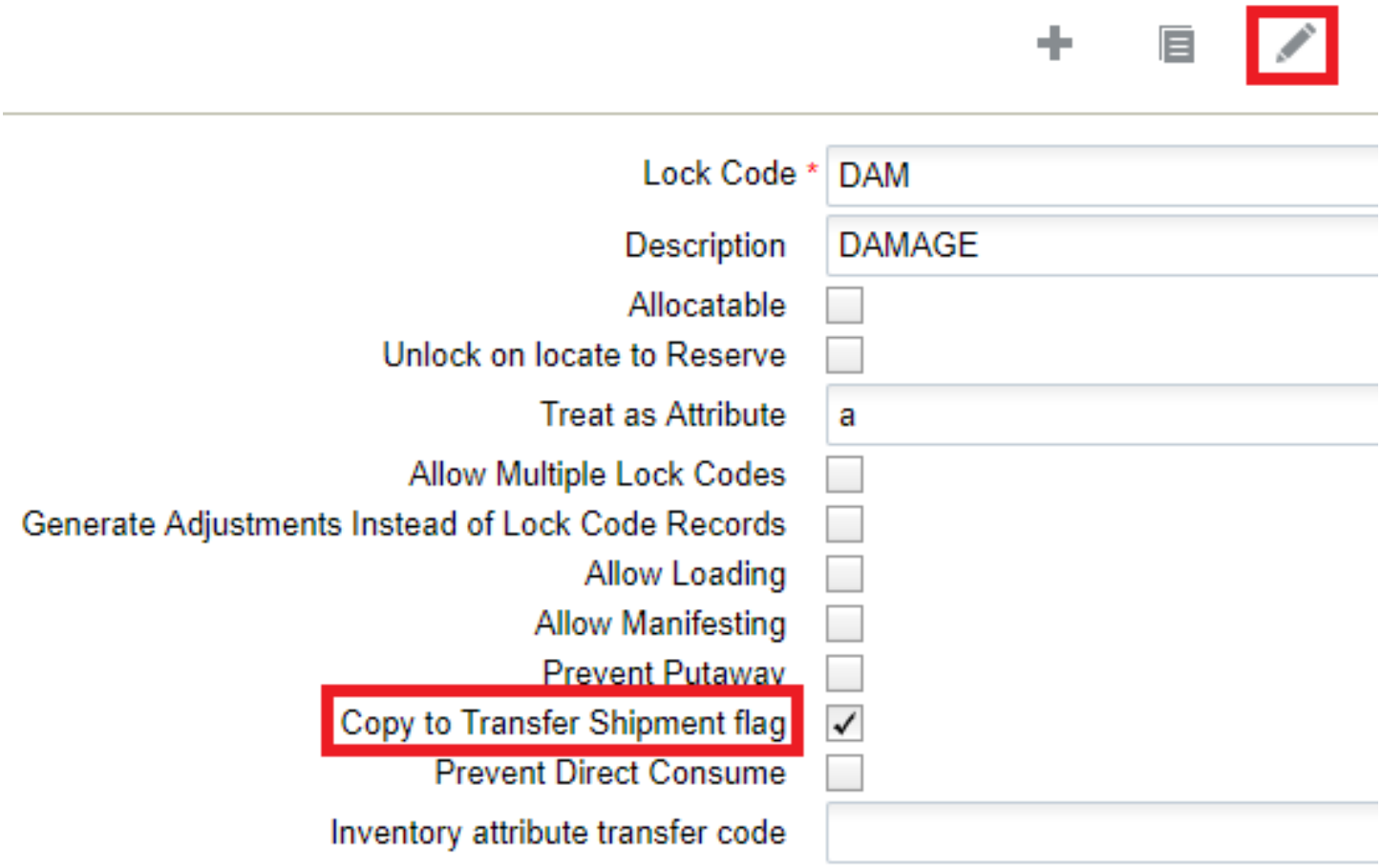
The destination facility must also have the Accept Transfer Shipment flag checked. Select your facility and click Edit to check the Accept Transfer Shipment flag and add any other details:



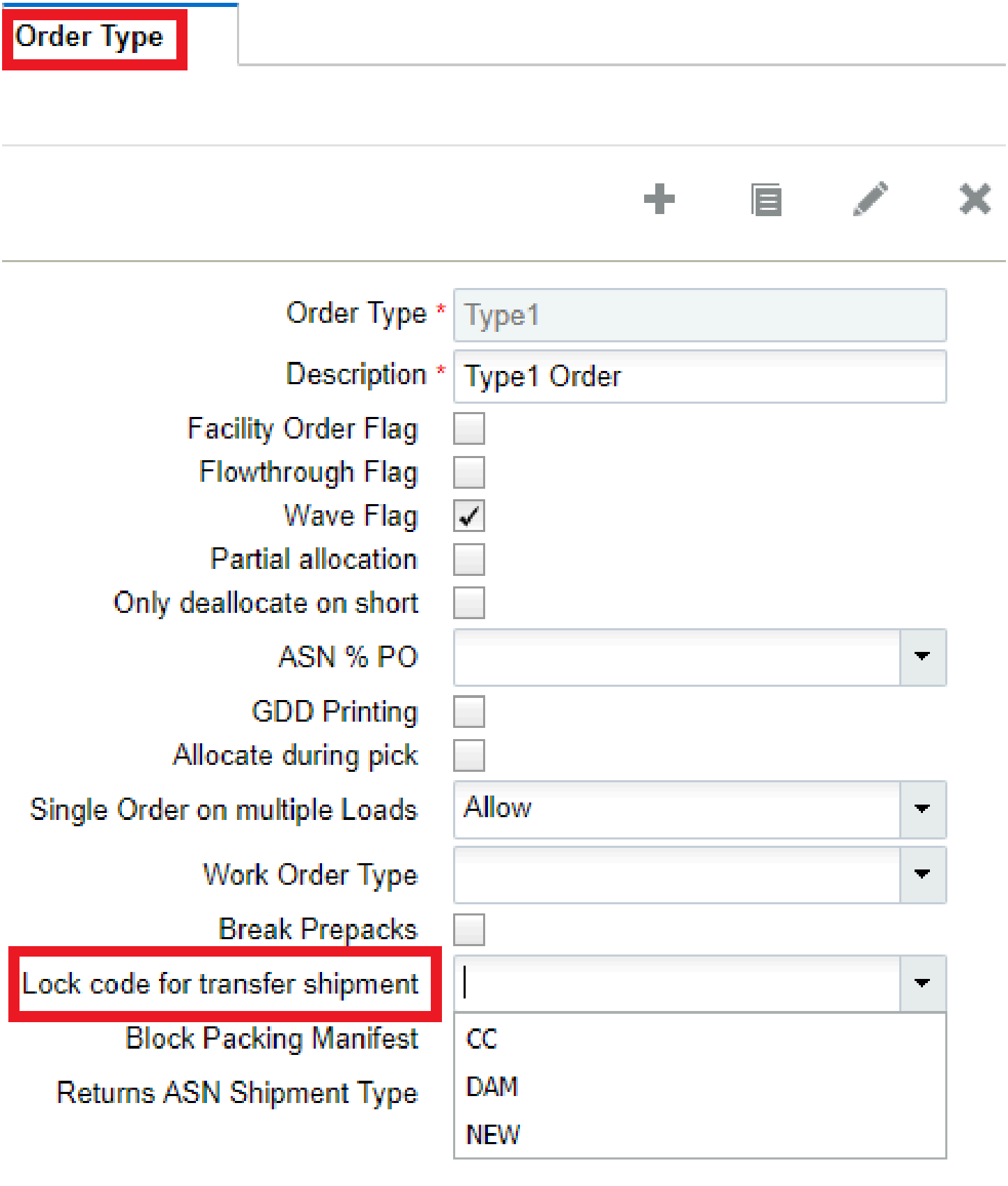
The following information can be transferred during the ASN Creation:

- 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.

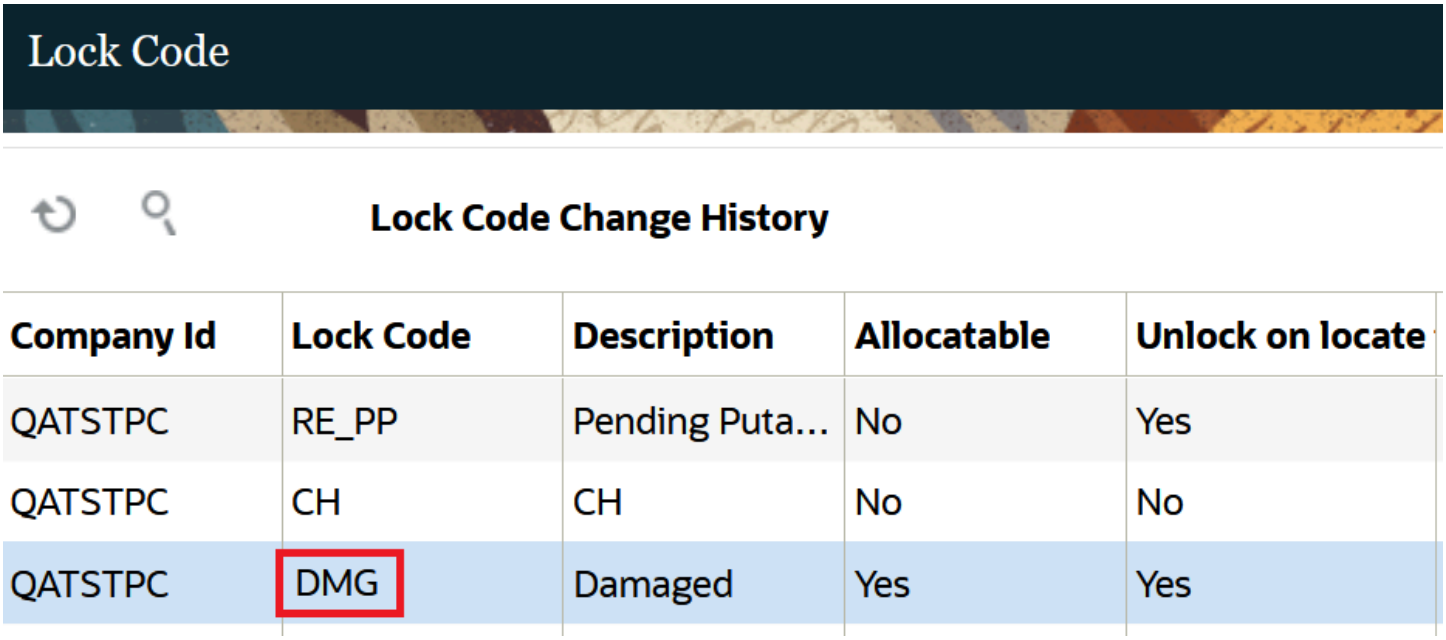
To set up lock codes for transfer shipments, first go to the Lock Code UI, and check the "Copy to Transfer Shipment flag".



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
Returns ASN Shipment Type
CC
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:



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.

Modify/Cancel OBLPN

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

Mod Cancel OBLPN Supports Transfer Inventory Lock Code to OBLPN

The Modify/Cancel OBLPN mobile transaction transfers inventory lock codes to the resulting IBLPNs. This ensures the resulting IBLPNs are carrying the lock codes from the OBLPNs. Hence, the ERP bucket inventory balance gets maintained accurately.

For example, IBLPNs carrying an RTV Lock code passed from an OBLPN will not get allocated to any customer order.

This improves the flexibility and accuracy when modifying or cancelling OBLPNs, particularly in the Return to Vendor process, by ensuring correct lock codes are applied.

When a lock code is applied to an OBLPN during or after packing, the system transfers the associated lock code to the corresponding IBLPN during modify/cancel operation and appropriate IHT records (IHT-29-Create Allocatable Container, or IHT-30- Create Unallocable Container, or IHT-23 Lock container) are captured.

Refer to IHT reference documents for more information.

For instance, If an OBLPN with Return to Vendor lock code has 5 (un-allocatable) units and on modifying the OBLPN inventory to 3, the lock code is transferred to the scanned IBLPN, ensuring accurate tracking.

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 receiving transactions, controls the behavior of receiving if a blind LPN is encountered while receiving facility transfer shipments.

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

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

- If the shipment is a facility transfer shipment, the system checks the value of the screen parameter newlpn-xfer-shp-behavior:
  - If newlpn-xfer-shp-behavior is set as Allow/Null, the system defaults to the current functionality where you are taken into SKU level receiving mode.
  - If newlpn-xfer-shp-behavior is set as “Fetch LPN Info from source”:
    - The system will get origin facility information based on origin_facility_id on ib_shipment.
    - Next, the system will query the origin facility to see if an outbound LPN exists in the origin facility with the LPN_NBR equal to the scanned LPN and the status of the LPN is either Packed, Loaded, or Shipped.
      - If the LPN is not found in the origin facility, you are taken into SKU level receiving mode.
      - If the LPN is found in the origin facility, an IB Shipment Dtl is created in the receiving facility with details from the origin facility and you can receive the LPN just like cartonized LPN receiving (without scanning details).
    - If a valid email ID is configured in the facility parameter ALERT_NEW_LPN_ON_FACILITY_TRANSFER_SHIPMENT, the message “Unexpected LPN <Scanned LPN Nbr> was received by user <user> on shipment <scanned shipment_nbr>” is emailed to the configured ID.
    - If the email ID is invalid (does not pass basic checks of ‘@’, ‘.’ etc) or if the email ID is null, the transaction continues to process without failing.
  - If allow-newlpn-fac-xfer-shp is set as “Fetch LPN Info and Reconcile”:
    - If the facility where the LPN is scanned is the same as the OBLPN's Ship To facility, the OBLPN's status is updated to 'Delivered.'
    - If the facility where the LPN is scanned is different from the OBLPN's Ship To facility and the status is 'Packed' or 'Loaded,' the OBLPN's status is updated to 'Shipped.'
    - If the OBLPN is assigned to a Load and the status is 'Packed' or 'Loaded,' the system will un-assign the LPN from the load or perform unload updates if the LPN is in 'Loaded’ Status.
  - If allow-newlpn-fac-xfer-shp is set as “Do Not Allow”, you are not allowed to receive the LPN. The error message “Invalid LPN Nbr” displays.

Expense Destination Items on Transfer Order / IB Shipment

For orders destined for locations or requesters outside the warehouse, goods can be received at the warehouse dock and manually issued to their destination. Expensed destination purchase orders and transfer orders from Oracle Cloud Inventory Management are supported for receipt in Cloud WMS. Upon receipt, these items are immediately auto consumed, and the WMS sends the auto consumed information to Inventory Management.

An **Expensed Destination** flag has been added at the Purchase Order **IB Shipment Detail** level to identify expensed items and enable automatic consumption upon receipt.

When processing an expensed destination receipt (IB Shipment Detail), the system receives and consumes the LPN, generating an **IHT-1 (LPN Received)** record which is sent to Fusion for receiving receipt confirmation.

Fusion can identify whether the PO/ASN is received in WMS from the receiving receipt confirmation.

- **Requestor Details**

Three new fields have been added to the PO and IB Shipment Detail Interfaces:

- **expensed_destination_flg**

- **Requestor Name** (250 characters)
- **Requestor Address** (250 characters)

These are available in XML, XLS, and PSV formats, allowing CREATE/UPDATE operations and will also appear in the **Inbound Shipment Stage table**.

Note: If an expensed detail has a Lock Code, the corresponding LPN inherits the same code and is auto consumed.

Expensed Destination Receipt – Information Message

An informational message is displayed when receiving expensed destination inventory.

When receiving expensed inventory, the following message is shown:"Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address"

This provides clear visibility of who requested the inventory and where it should be delivered.

- **Expensed Destination Receiving Metrix:**

Receiving Method	Condition	Displayed Message
ASN UI-Based Receiving	Destination Type = Expensed; Requestor Name populated	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
ASN UI-Based Receiving	Requestor Name/Address not populated; multiple requestors in LPN	Expensed inventory received and consumed in LPN: %LPN1, %LPN2
Mobile Device-Based Receiving (ASN, Load)	Destination Type = Expensed; Requestor Name populated	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
Mobile Device-Based Receiving (ASN, Load)	Requestor Name/Address not populated; multiple requestors in LPN	Received LPNs are consumed to expensed destination

Message Format Details:

Scenario	Displayed Message
Single LPN Received	Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address
Multiple LPNs Received	Expensed inventory received in %LPN_count(s) LPNs and to be delivered to %Requestor name, %Requestor address

Note:

- The message displays only for Expensed Destination receipts.
- Requestor Name and Address must be populated.
- If multiple requestors exist in a single LPN, the system displays the standard message instead.
- Applies to PO, ASN, and Mobile Device-based receiving workflows.

IB Shipment Detail UI Configuration

Expensed Destination Flag:

- Checkbox field: **Expensed Destination** (`expensed_destination_flg`)
- Usage:
  - Checked - Expensed
  - Unchecked - non-expensed
- Default value: Blank (unchecked)
- Available for both Create and Edit actions.

Requestor Details:

Fields added to capture requestor information:

- Requestor Name (250 characters)
- Requestor Address (250 characters)
- Fields visible in Create/Edit pane and can be added directly through the UI.
- Columns for these fields are available on the IB Shipment screen:
  - Users can show/hide and save preferred views.
  - Exportable in CSV format.
- Requestor Address also appears in the Purchase Order and IB Shipment UIs.

Receiving – Expensed Destination Handling

When receiving via ASN or PO where the Expensed Destination flag is enabled:

- System automatically consumes ASN details upon receipt.
- Applies to:
  - Receive by Shipment
  - Receive by Load
  - Receive Single SKU
  - Sort and Receive
- Auto-consumption occurs immediately before the LPN is picked by Flowthrough or Xdock.
- Location prompt for consumed LPN is suppressed.

- System displays: “LPN %LPN% received and consumed to expensed destination.”
- **Inventory Mixing Validation**

Scenario	User Action	System Behavior
ASN has expensed details	Receive SKUs in single LPN	Allowed – auto consumed
ASN has both expensed and non-expensed details	Receive expensed details in one LPN	Error: “Cannot mix both expensed and non-expensed inventories in a single LPN.”

If the ASN is linked to a PO, expensed destination validations remain identical.

Handling Tolerance During Receiving

Line-level tolerance applies to ASN and PO receiving.

- If **prompt-po-seq-line** is disabled, receiving may fail when SKUs have different tolerances across PO lines. Auto-consumption will not occur.
- If **prompt-po-seq-line** is enabled:
  - Line or header-level tolerance applies.
  - Excess quantity within tolerance is auto consumed.
- Tolerance applies at both line and header levels for ASN, PO, and ASN+PO combinations.
- **Mobile Screens are suppressed for Auto Consumed LPNs**

Screen/Action	Description
Location Prompt	Suppressed during expensed LPN receipt
Xdock Screen	Skipped
Flowthrough Screen	Skipped
Next Screen	Directly proceeds to QC Flow

Important Notes:

- Expensed destination receipts are auto consumed and unavailable for putaway or staging.
- Ensure the Expensed Destination flag is correctly set on ASN/PO records before receiving.
- Lock code behavior and IHT updates ensure accurate traceability and Fusion integration.

Auto Consumption in Detailed Receiving Flow

When a non-cartonized ASN line is marked as Expensed Destination = Yes:

- Any LPN received for that line is automatically consumed once the LPN is ended.
- If an LPN is used to receive quantities from both expensed and non-expensed details, the system records an error:

“Cannot mix both expensed and non-expensed inventories in a single LPN.”

IHT Events Generated:

- IHT-1: LPN Received
- IHT-2: Container Consumed

Auto-consumption executes only when the LPN is ended.

Applies to both **Receive Entire Shipment** and **Receive LPN** options in the IB Shipment process.

API-Based Receiving

- **Receive Entire Shipment API**

Endpoint: `/entity/ib_shipment/receive_entire_shipment`

- ASN lines with Expensed Destination = Yes are automatically consumed upon receipt.
- LPNs for expensed lines are marked as consumed.
- Error displayed if same LPN is used for both expensed and non-expensed details: “Cannot mix both expensed and non-expensed inventories in a single LPN%”
- IHT Trigger Points:
  - IHT-1: LPN Received
  - IHT-2: Container Consumed

Receive IBLPN API

Endpoint: `/entity/iblpn/receive`

- Auto consumption occurs for expensed ASN lines.
- LPNs associated with expensed lines are marked as consumed.
- Mixing validation enforced; error generated if violated:

“Cannot mix both expensed and non-expensed inventories in a single LPN%”

- IHT Trigger Points:
  - IHT-1: LPN Received
  - IHT-2: Container Consumed
  - `REF_FIELD_18 (EXP)`

    updated with Yes/No based on shipment configuration.

Dummy SKU Exclusion from Inventory Adjustment

To exclude Dummy SKU items from triggering Inventory Adjustment (IHT-4/17) integrations:

- In **Output Interface Configuration → Inventory History → Output Interface Target Filter Criteria**, a new column is available:
  - `ITEM.Dummy Sku flg`
- This column can filter out Dummy SKU items from Inventory Adjustment Integration.

- The same field is added to the **Inventory History Export Output Interface file** for downstream visibility.

Error Handling in IB Shipment Interface and UI

Validation ensures no conflicting expensed configurations exist for the same SKU within a shipment.

Example	Item	Qty	Expensed Destination Flag
SHPMNT-01	SKU-A	10	Yes
SHPMNT-01	SKU-A	15	No

- System restricts interfacing when conflicting expensed flags exist for the same SKU.
- Validation applies to both CREATE and UPDATE actions in the IB Shipment Interface.

Validation and Synchronization Between IB Shipment and PO Details

When linking IB Shipment Details to Purchase Order Details:

- The following fields are automatically copied:
  - `expensed_destination_flag`
  - `requestor_name`
  - `requestor_address`
- If IB Shipment Detail is marked Expensed = Yes while the PO Detail is No, the system restricts the operation and records an error: “Conflicting expensed records for the item: %ITEM_CODE”
- Once linked, these fields cannot be modified. Any attempt generates the same error message.

Vendor QC UI Configuration

The Vendor QC UI supports configuration using the following Shipment Detail fields:

- Shipment Detail Expensed Destination Flag
- Shipment Detail Requestor Name
- Shipment Detail Requestor Address

These can be configured under **Sort & Receive Config UI – Criteria Fields** to automatically mark items for QC during receiving.

- **Message on Approving Expensed LPN in QC**

When approving an expensed LPN marked for QC, the system displays: “Expensed inventory received in %LPN and to be delivered to %Requestor name, %Requestor address.”

The LPN moves to Consumed status upon approval.

Label Configuration

Requestor information fields are available in Label Designer for label customization.

Available Fields:

- Requestor_Name

- Requestor_Address

Supported Label Type: IBLPN

Labels can be configured and printed using these fields in **Label Designer**.

Creating an ASN after a Return

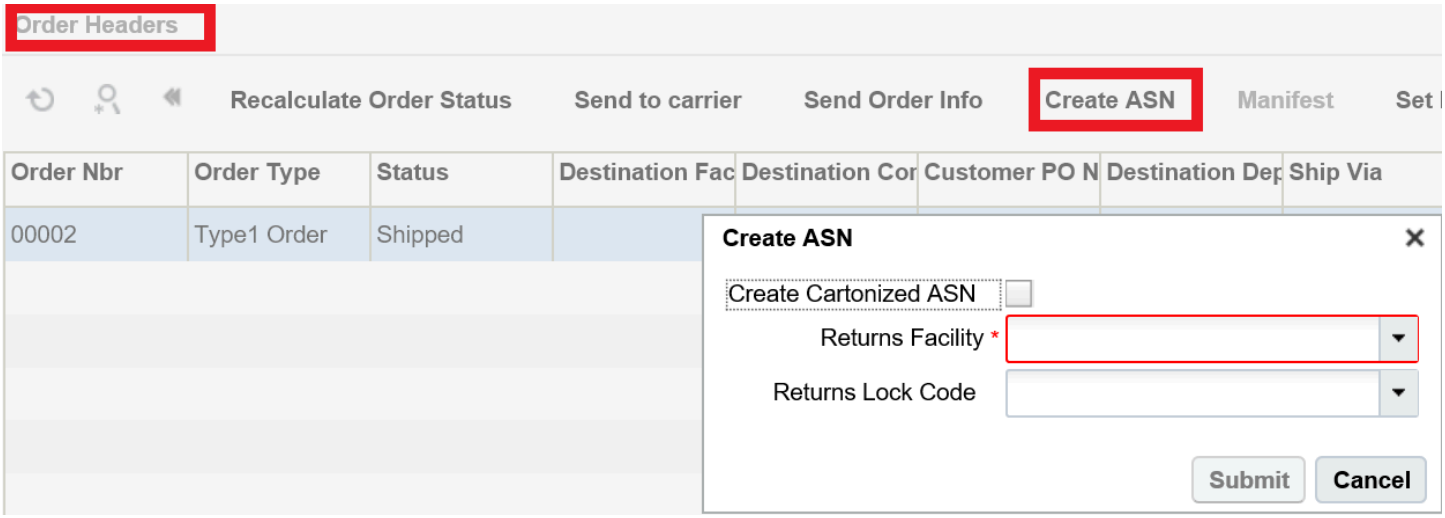
If you are receiving inventory back in your facility, this feature allows you to find the return inventory in the system and create an ASN in the returned facility, so that you can account for the correct inventory. There are two ways to receive returned inventory, via the Order Headers UI (where you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



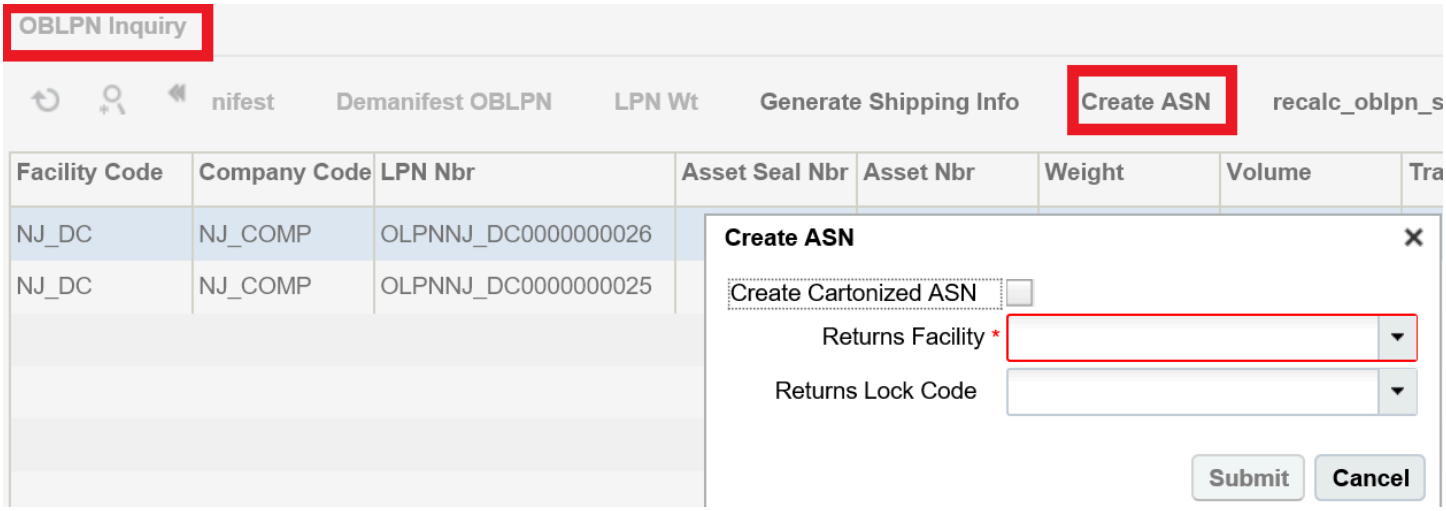
Create ASN – Order Headers

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.

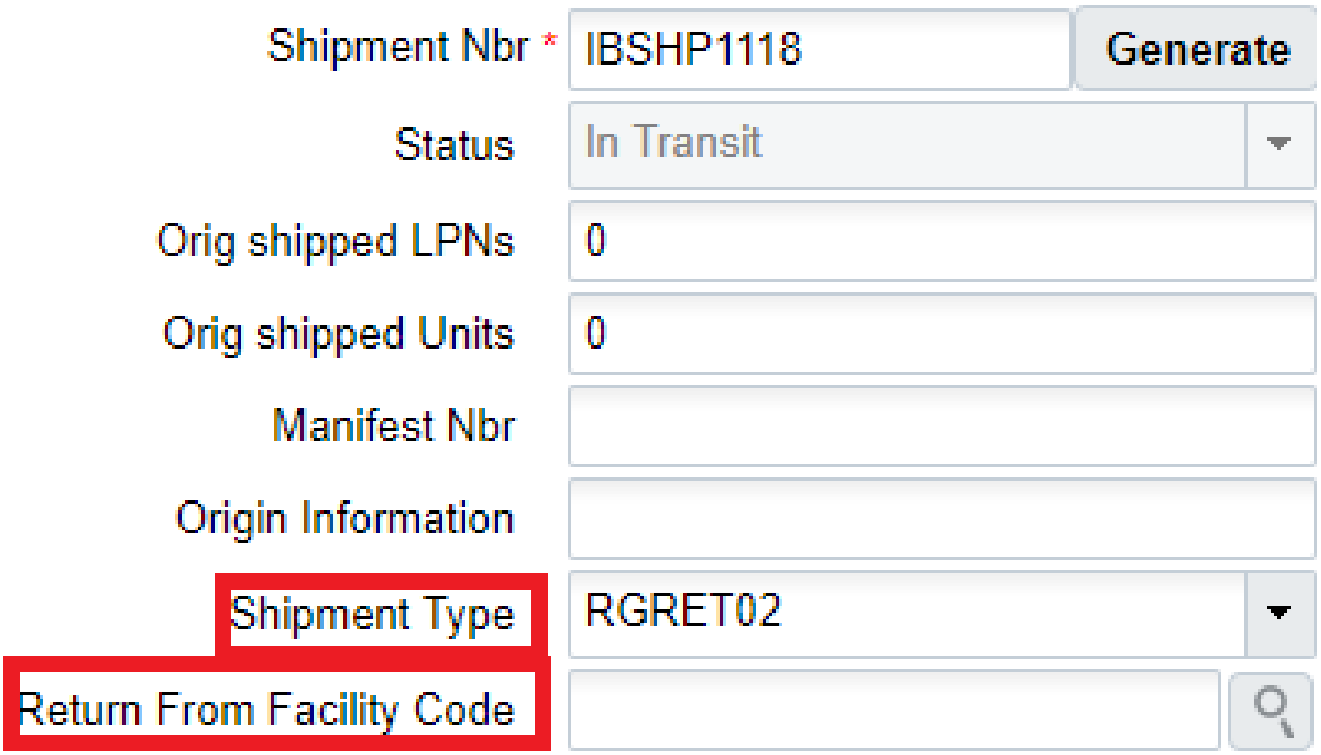


Viewing your ASN

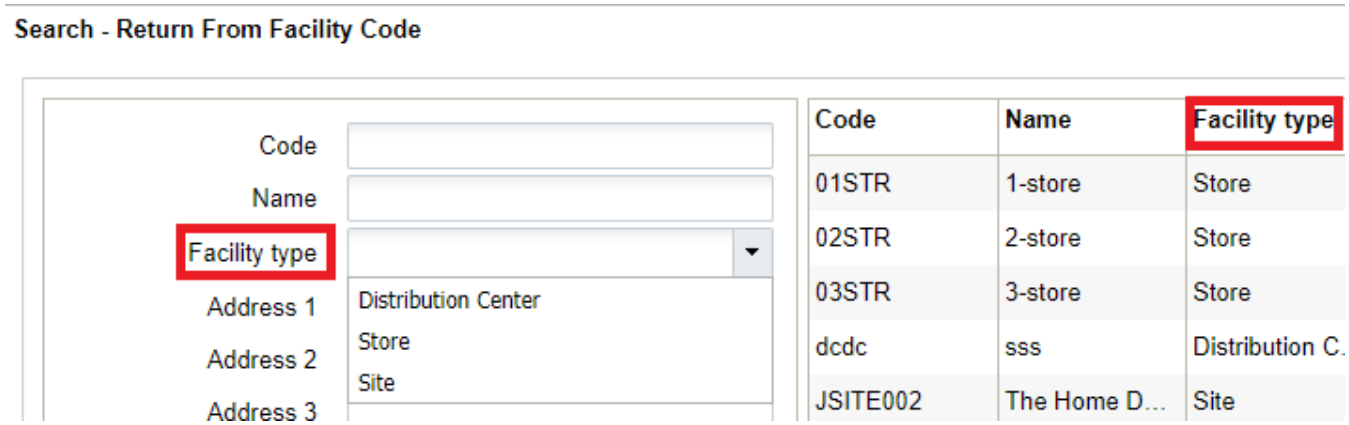
To view your newly created ASN, you will need to change your facility to your return facility. If your return inventory had an inventory attribute, this information is copied to your new ASN.

Capturing the shipment Origin

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

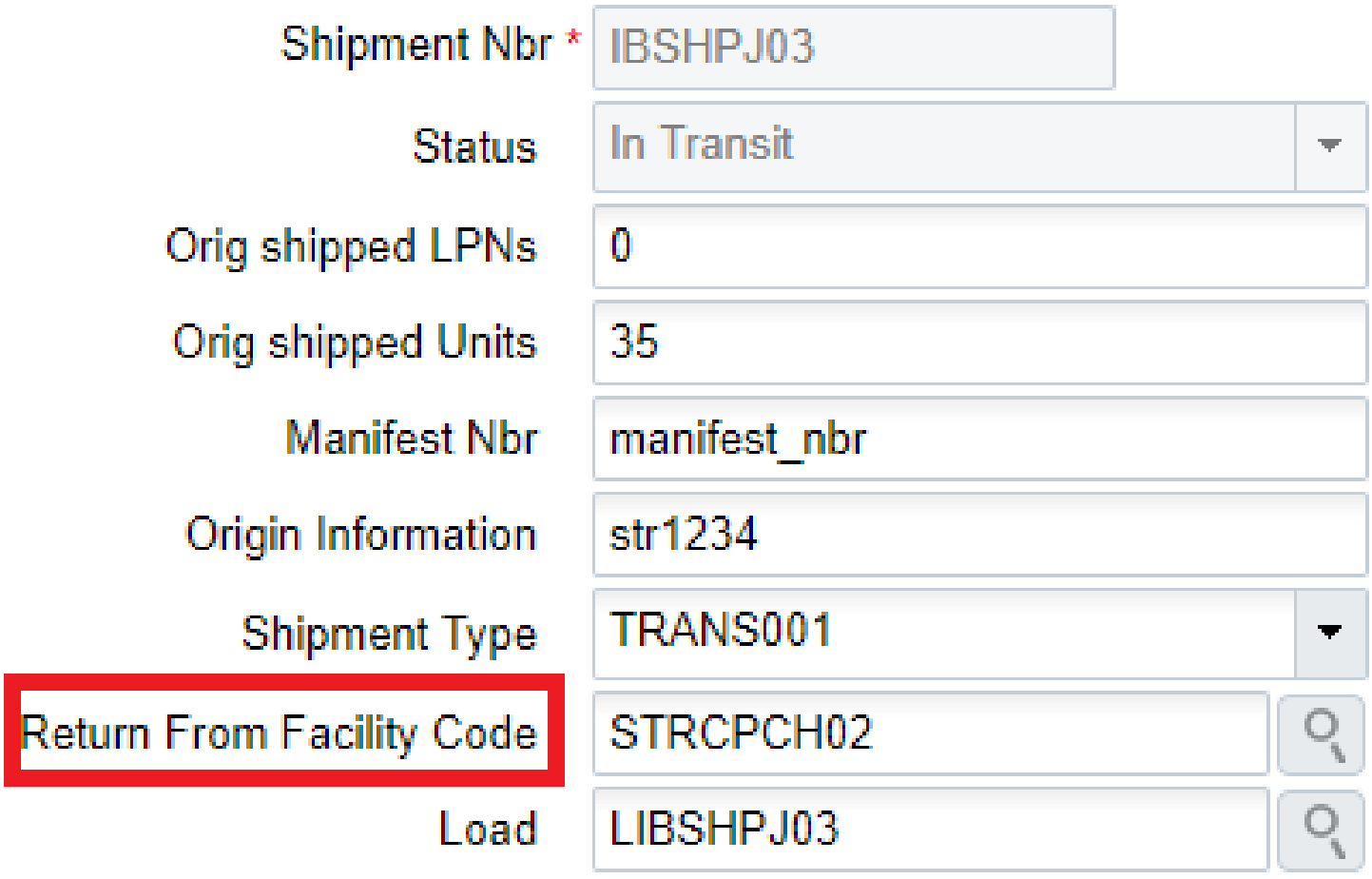


2. “Return From Facility Code” is enabled only if the Shipment Type on the shipment has “Capture Returns Information” configured as **Yes** in the **Shipment Type** UI. In this example, Shipment Type **RGRET02** has been configured with “Capture Returns Information” as **Yes**, which has enabled the “Return From Facility Code” field).
3. Once you select the advanced look up option, the following screen appears, and displays a facility type of “DC”, “Store”, or “Site”. Depending on where the shipment is returned from, choose the appropriate facility type. If the return shipment is from a customer, then choose “Site” as the facility type.



4. The system will not allow the creation of an ASN if the selected Shipment Type has “Capture Returns Information” configured as **Yes**, but the “Return From Facility Code” value has not been captured.
5. When the Shipment Type has “Capture Returns Information” configured as **No**, and you populate “Return From Facility Code”, then the system removes the “Return From Facility Code” value before it creates a new ASN.

6. When an ASN for return shipment is verified, the return facility information is included in the Shipment Verification file.
7. When an inbound shipment is created from a Purchase Order (Header or Detail view), the Shipment Type for the shipment is determined from the PO Type of the Purchase Order. If the determined Shipment Type has "Capture Returns Information" configured as **Yes**, then the system prevents the Inbound Shipment from being created because return information is required.
8. When an ASN is interfaced into WMS with a Shipment Type that has "Capture Returns Information" configured as **Yes**, the system validates if the field "returned_from_facility_code" is populated in the input file/msg.
    a. If this field is not populated, the system does not allow the ASN to be interfaced and displays the error message "Cannot Create Inbound Shipment, Return facility Information is required".
    b. If this field is populated but the facility code is invalid, then the system does not allow the ASN to be interfaced and displays the error message "Invalid return from facility code".
9. When a Transfer Shipment is created for a load that is shipped from one facility to another, if the determined Shipment Type has "Capture Returns Information" configured as **Yes**, then the "return from facility code" is populated on the Transfer Shipment.



OBLPNs Dispatch Leftovers

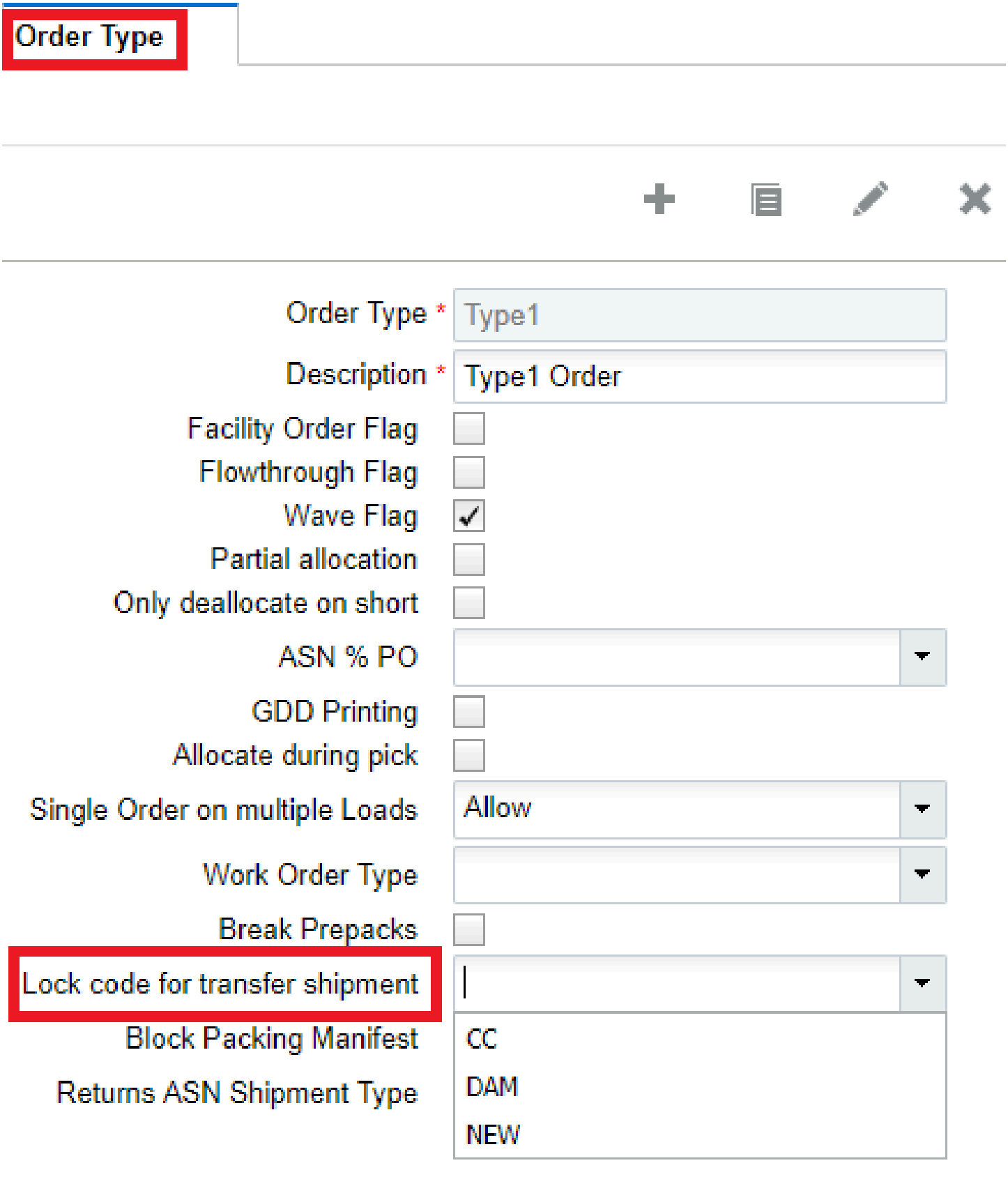
Previously, when an unanticipated LPN was received in the destination facility as part of a transfer shipment, an alert was sent via e-mail.

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

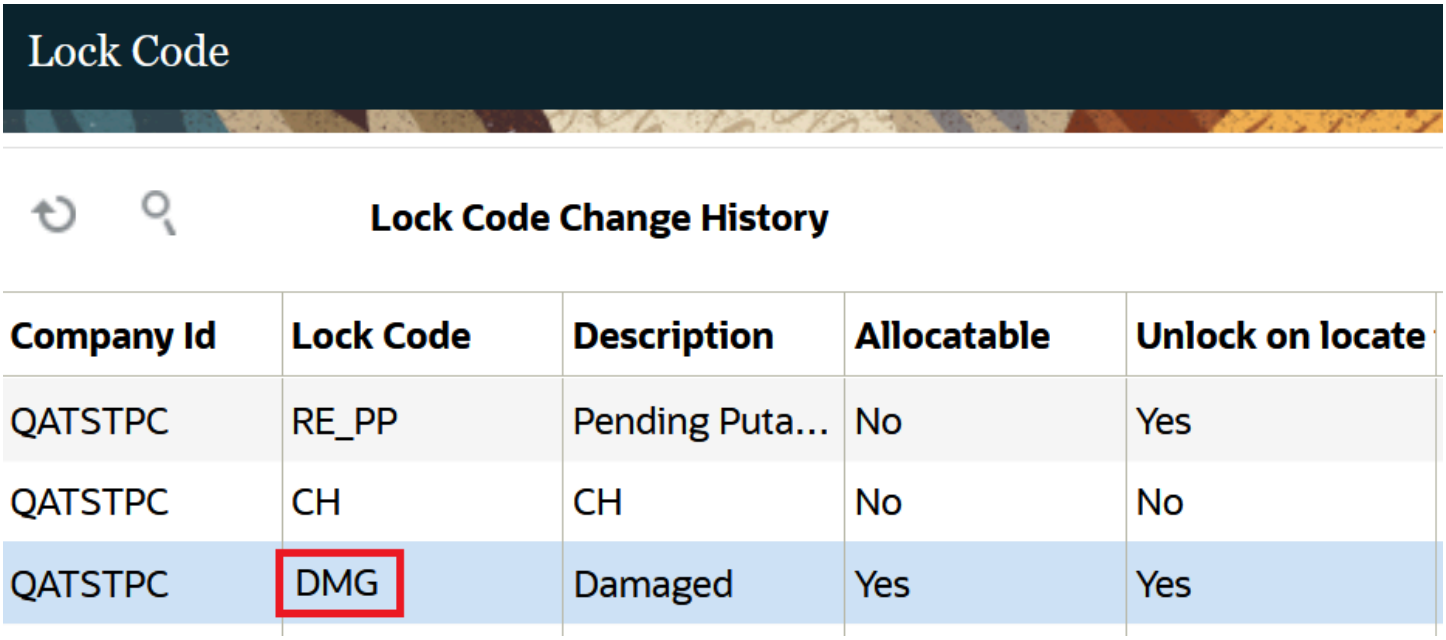
- If the facility where the LPN is scanned is the same as the OBLPN's Ship To facility, the OBLPN's status is updated to 'Delivered.'
- If the facility where the LPN is scanned is different from the OBLPN's Ship To facility and the status is 'Packed' or 'Loaded,' the OBLPN's status is updated to 'Shipped.'
- If the If the OBLPN is assigned to a Load and the status is 'Packed' or 'Loaded,' the system will un-assign the LPN from the load or perform unload updates if the LPN is in 'Loaded’ Status.

Lock Codes for Inbound Shipments

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


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
Returns ASN Shipment Type
CC
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:



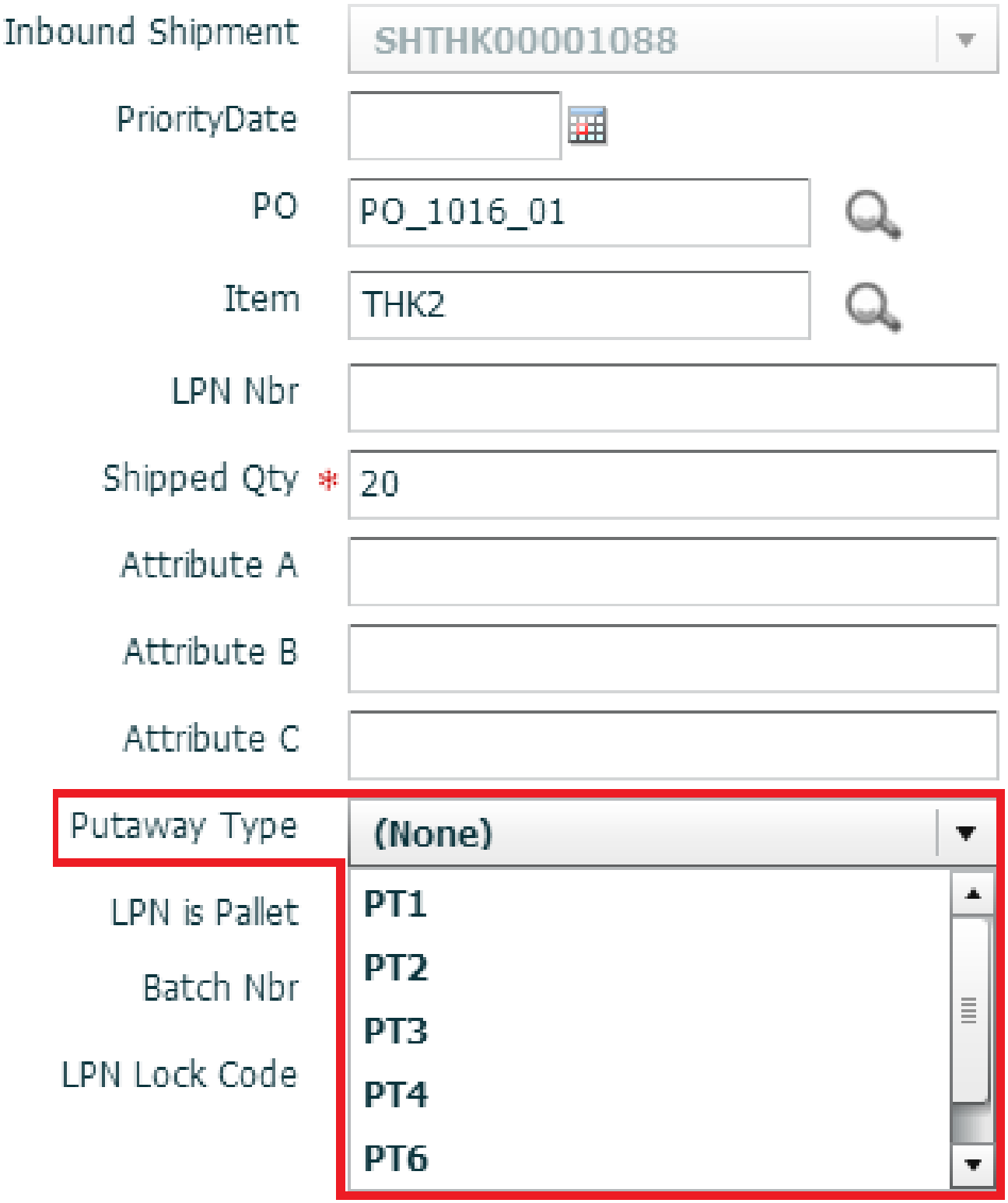
Note: The lock code should have the *Copy to Transfer Shipment flag* set to yes for the DAM lock code to appear on the ASN once it is created.

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.

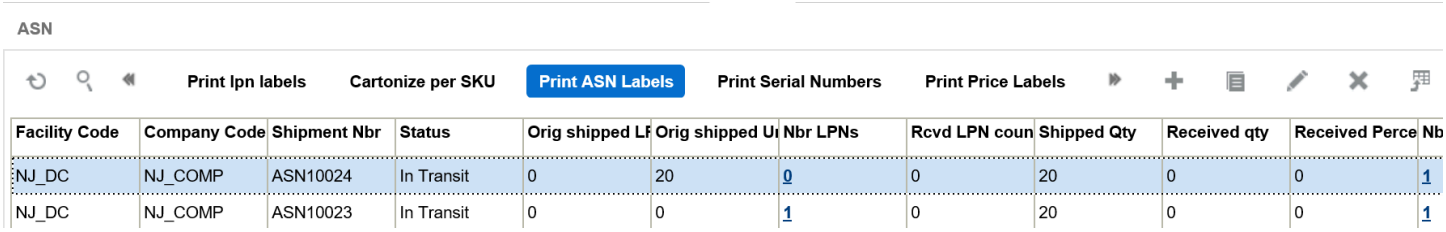
3. Click on the Edit button.



4. Select the appropriate putaway type from the “Putaway Type” drop-down menu.
5. Click ‘Save’.

Printing ASN Label

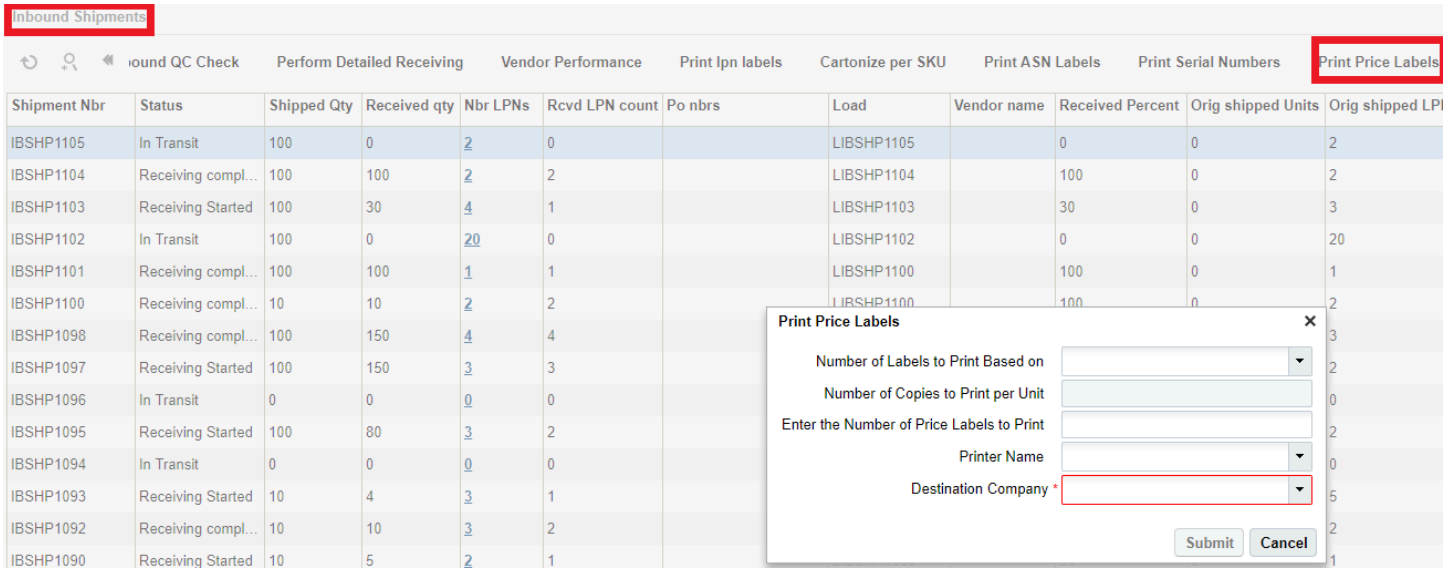
You have the option to Print an ASN Label from the Inbound Shipment UI. You can use this action button to print the label according to the default label/document printer you define.



Facility Code	Company Code	Shipment Nbr	Status	Orig shipped LF	Orig shipped UI	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.



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

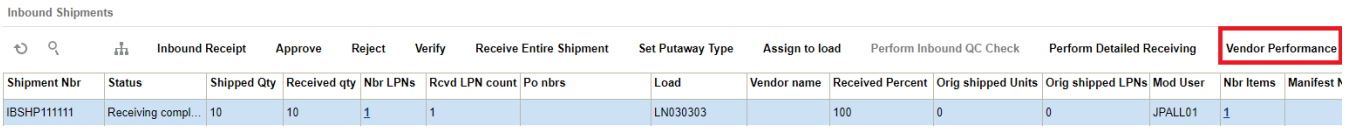
Print Price Labels	Description
Company	The child company in which this ASN type is used.
Number of Labels to Print Based on	Use the Shipped or Received quantity to determine the number of labels.

Print Price Labels	Description
Number of Copies to Print per Unit	the number of copies to print per unit.
Enter the Number of Price Labels to Print	Numner of Price Labels to print.
Printer Name	Printer name available for the user.
Destination Company	Destination Company on the label.

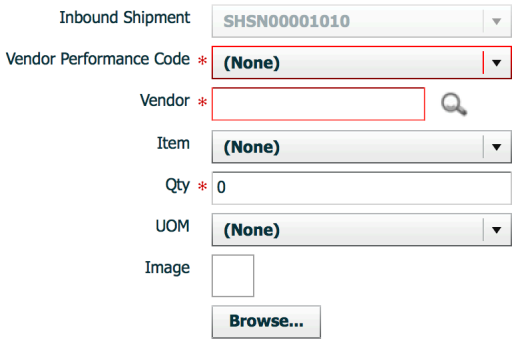
Vendor Compliance

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’



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.

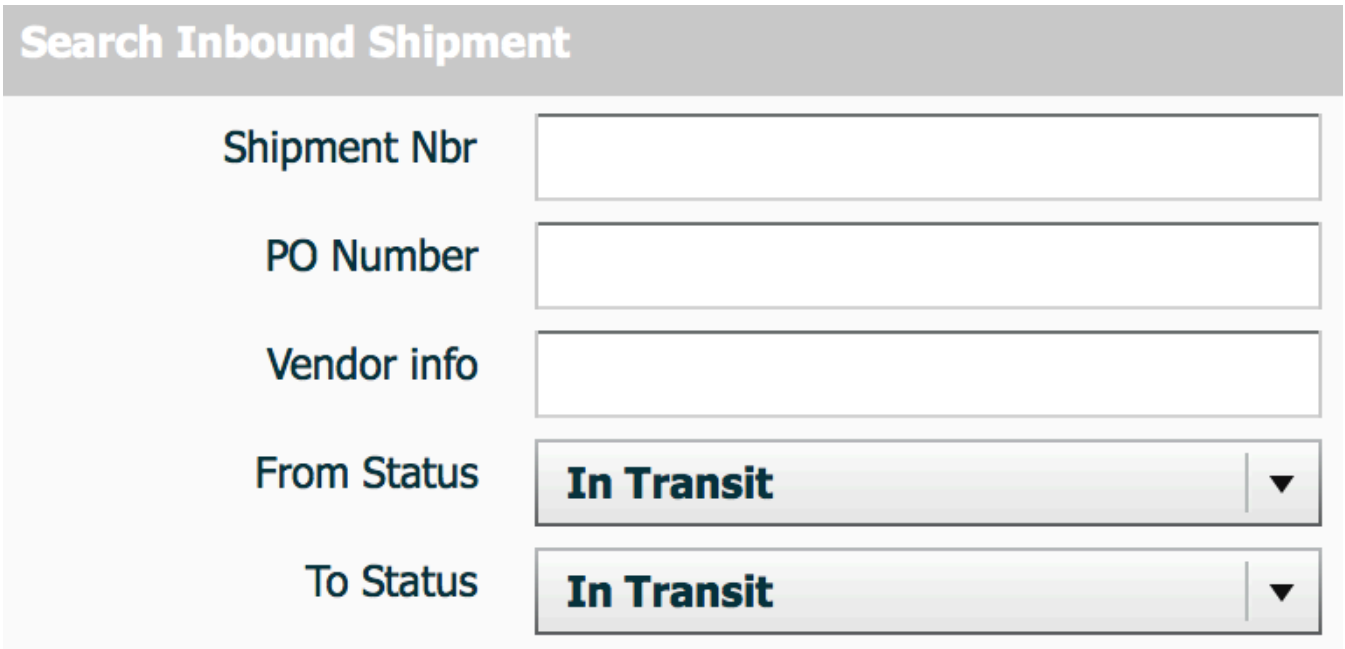


5. Click “Save”.

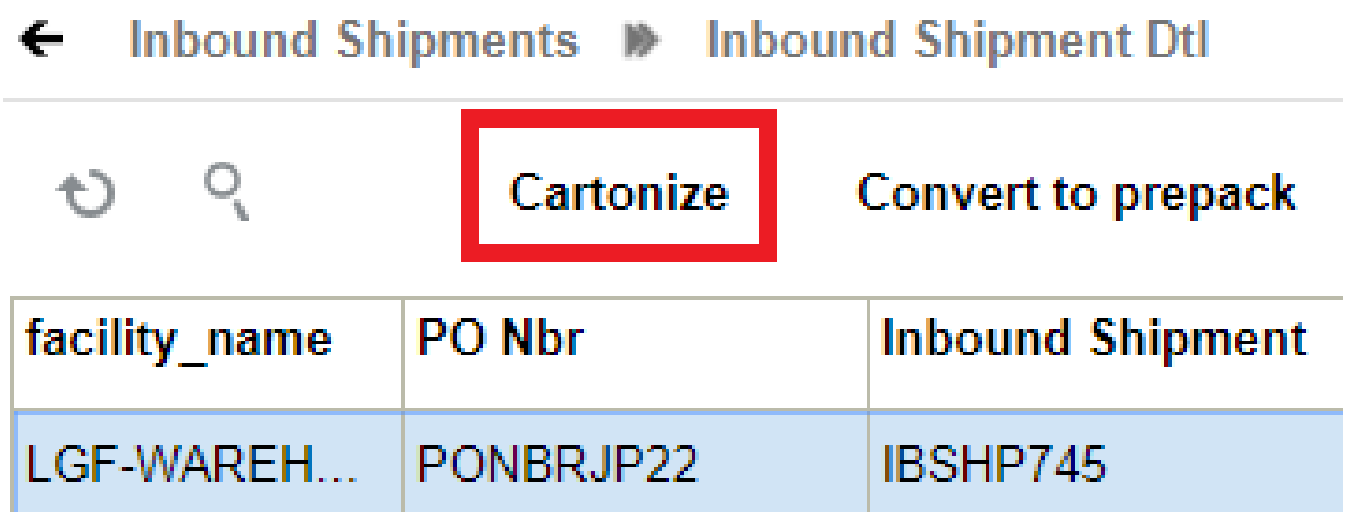
Pre-Receiving: Cartonization

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.

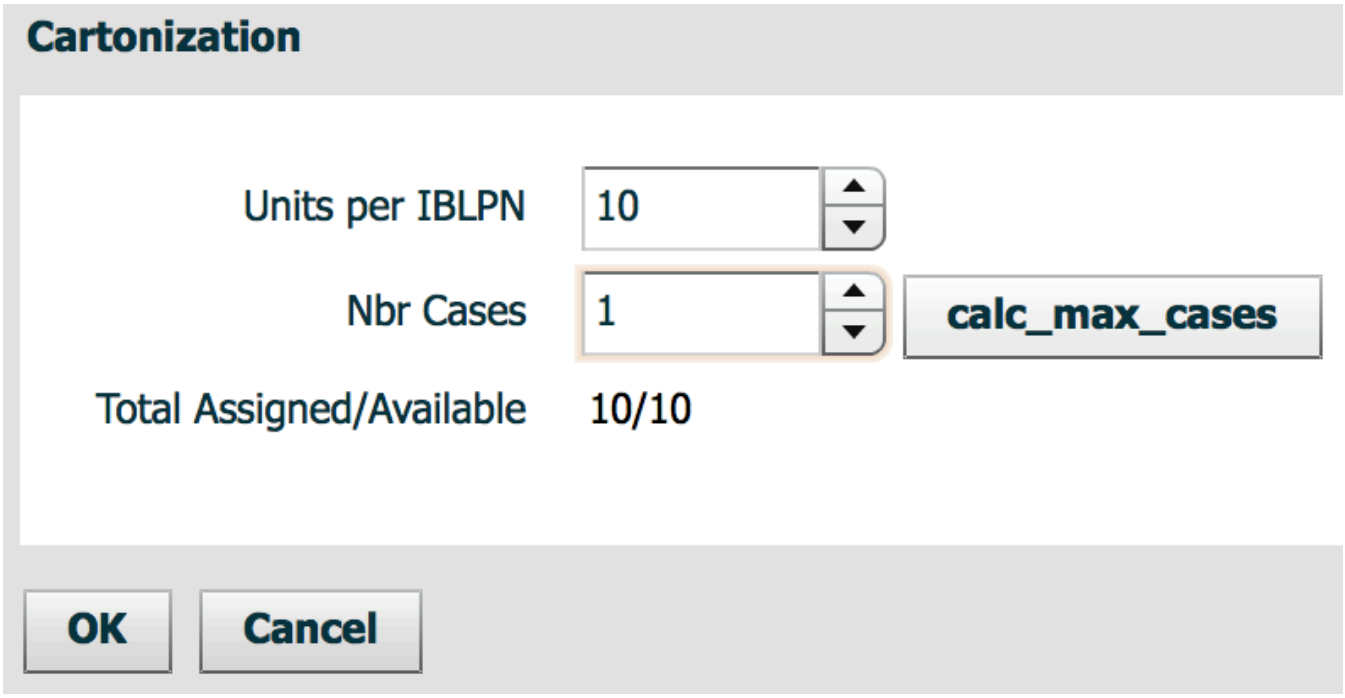
1. To display open ASNs, use the search icon to search ASNs by status 'In Transit' or by any other relevant search criteria.



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."



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

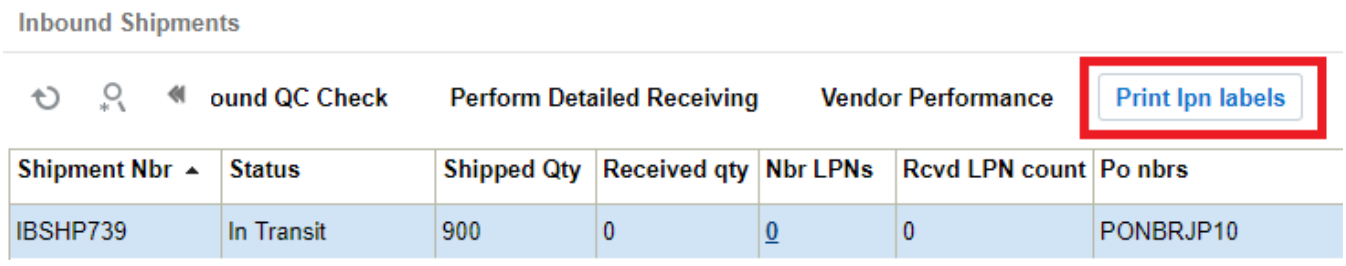


5. After you press OK, Oracle WMS Cloud creates a record for each LPN that is cartonized. Note that the system uses an internal sequence counter for the LPNs.

> **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

1. Once all ASN details are cartonized, click the "←" icon on the UI to go back to the 'ASN Header' screen.
2. To print the cartonized LPN labels, select the ASN and click on "Print LPN Labels".



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.



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.

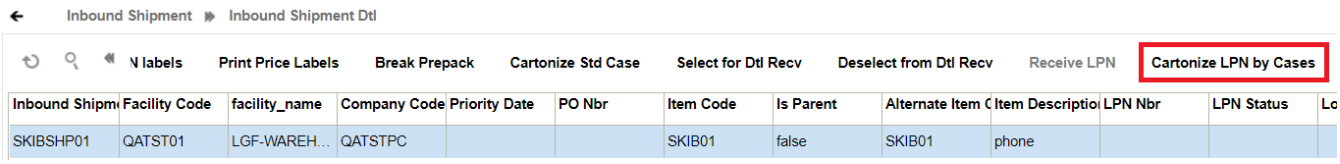
Clicking the “Cartonize Std Case” button will generate 5 LPNs of 5 units each:

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:

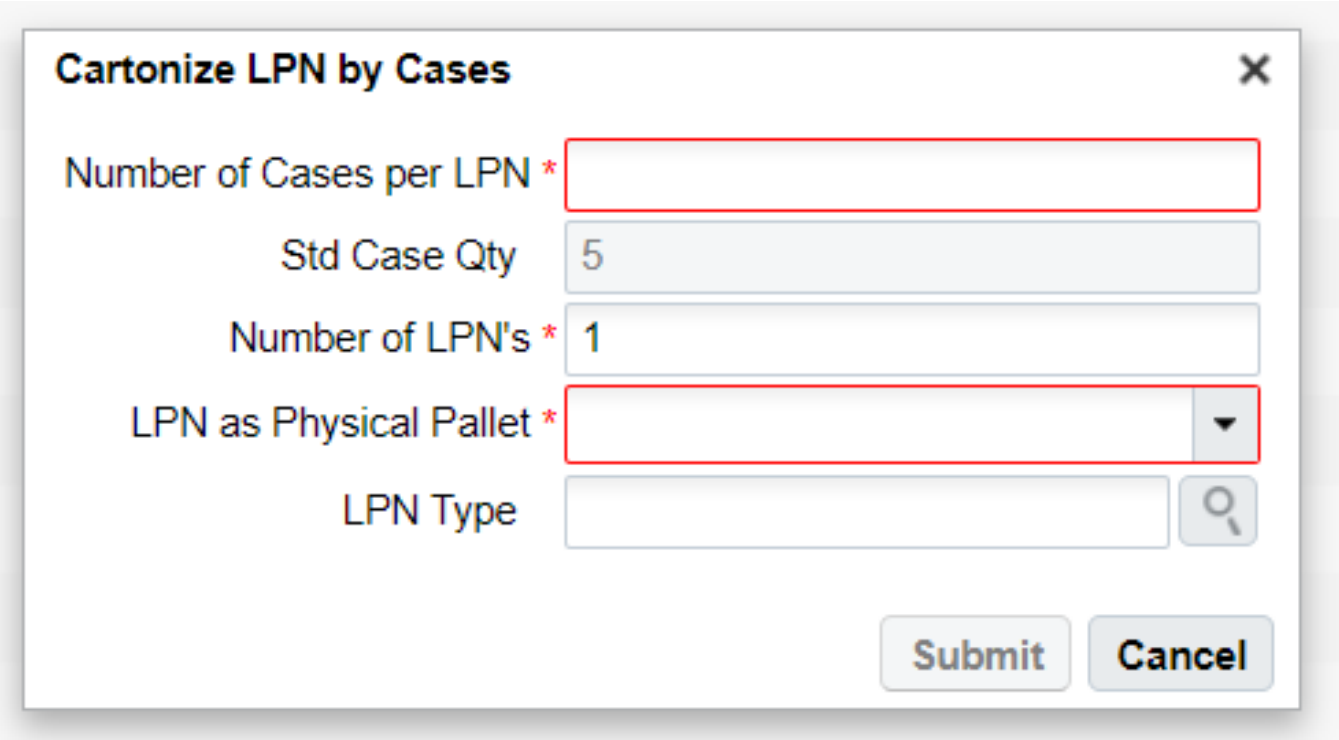
1. From the “Inbound Shipment” screen, select the IB Shipment from which you want to cartonize the LPN.
2. Click Details. The Inbound Shipment Detail page opens.



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.

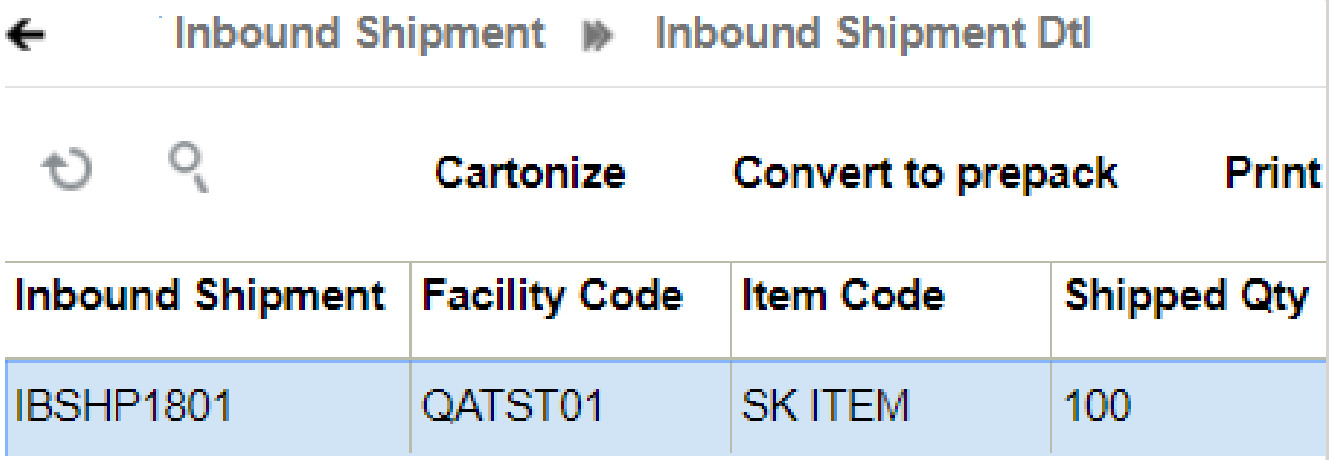


5. After you enter the quantity, click **Submit**. Once you submit, the “Cartonization successful” message displays.

Cartonizing LPN by Cases

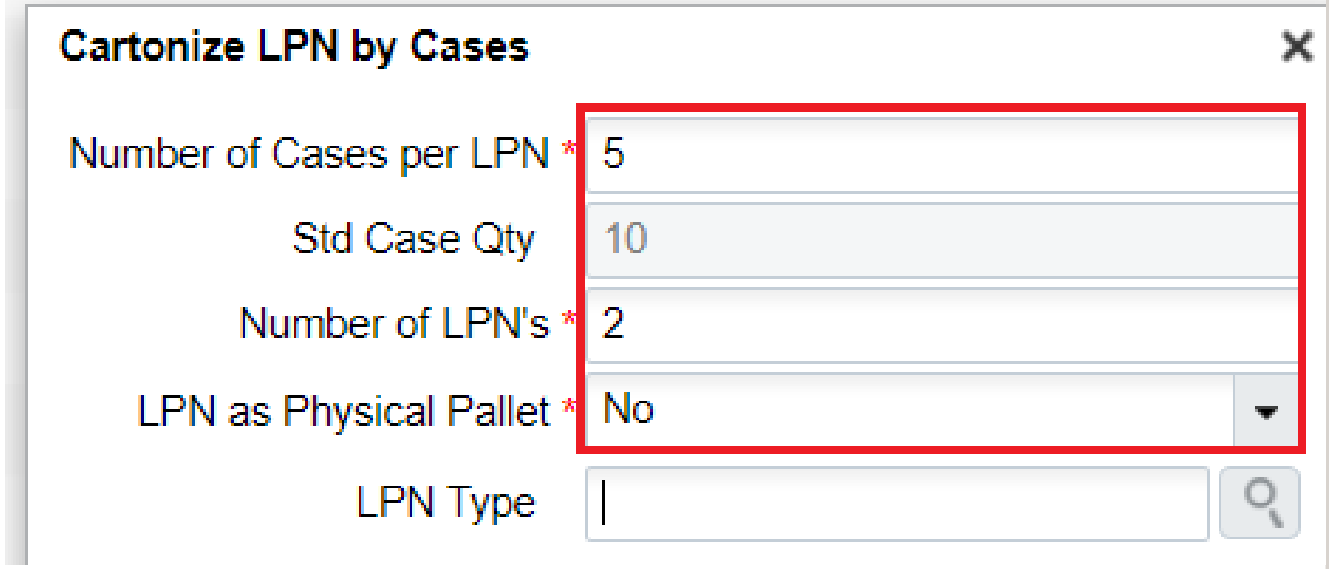
Field Parameter	Description
Number of Cases per LPN	Enter the number of cases you want to be cartonized per LPN.
Std Case Qty	Displays the Standard Case Quantity defined at the master level for an item.
Number of LPNs	Enter the number of LPNs.
LPN as Physical Pallet	Click the drop-down box to select either one of the following options: 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:



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

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



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

Inbound Shipment » Inbound Shipment Dtl

Cartonize | Convert to prepack | Print LPN labels | Print Price Labels

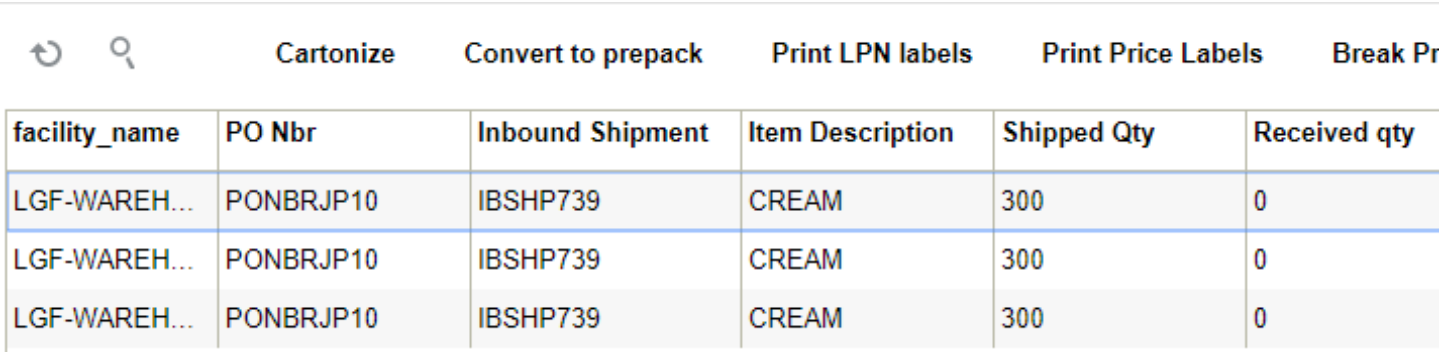
Inbound Shipment	Facility Code	Item Code	LPN Nbr	Shipped Qty	Attribute A
IBSHP1801	QATST01	SK ITEM	CSTST01000...	50	
IBSHP1801	QATST01	SK ITEM	CSTST01000...	50	

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.

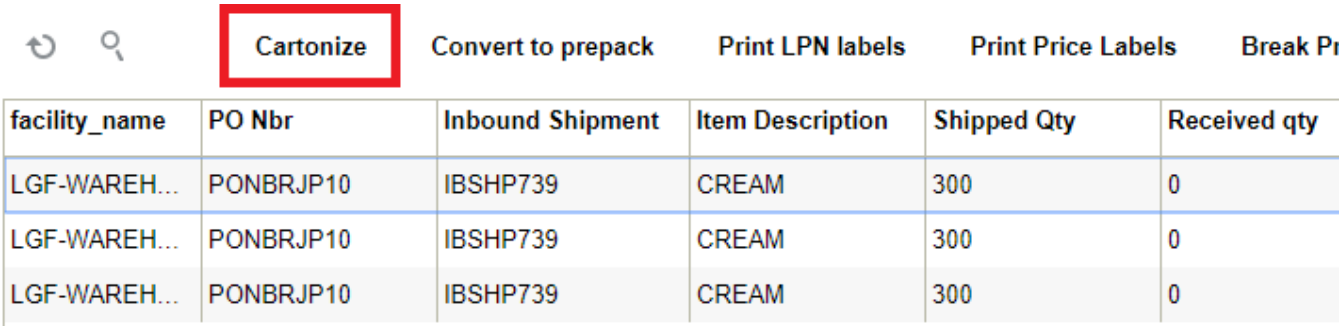
Consider the example below, which contains three ASN details for the same item.



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

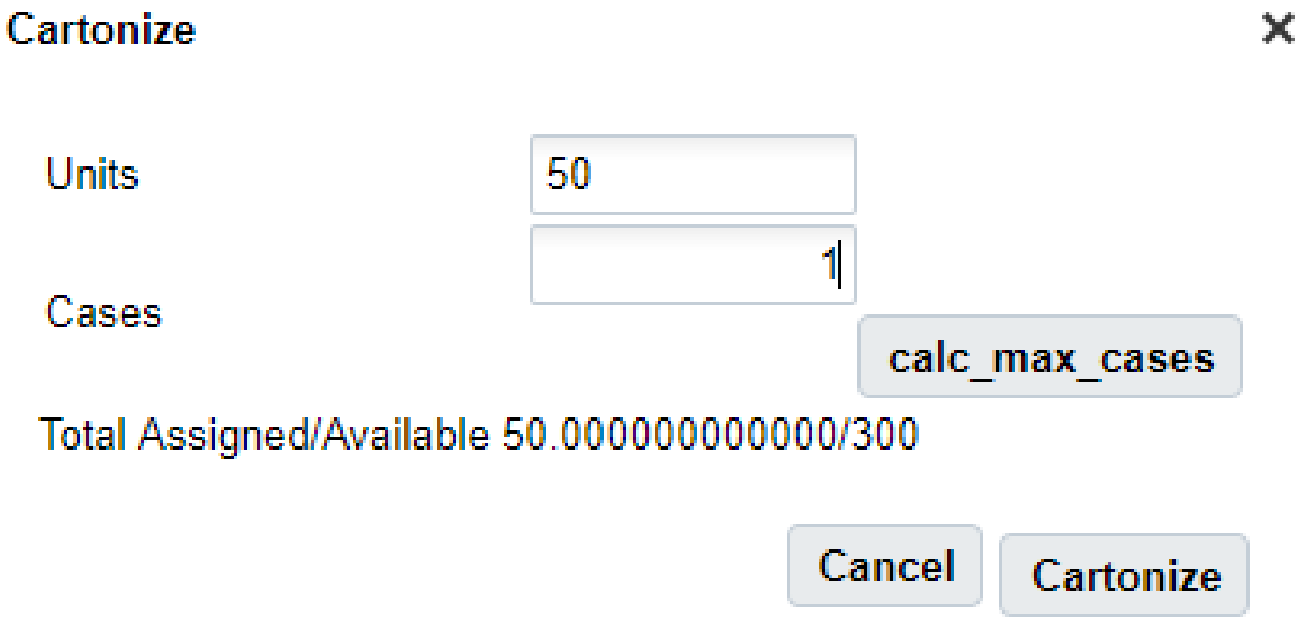
Suppose you want to generate one LPN number and assign them to all three records.

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

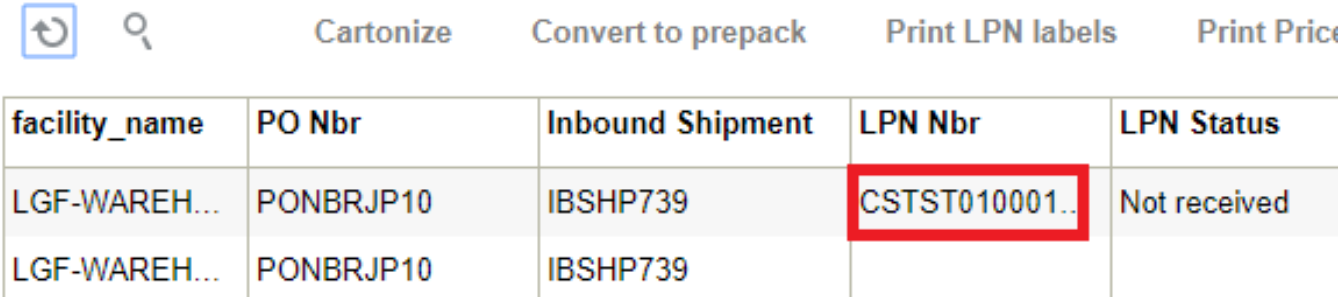


facility_name	PO Nbr	Inbound Shipment	Item Description	Shipped Qty	Received qty
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0

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

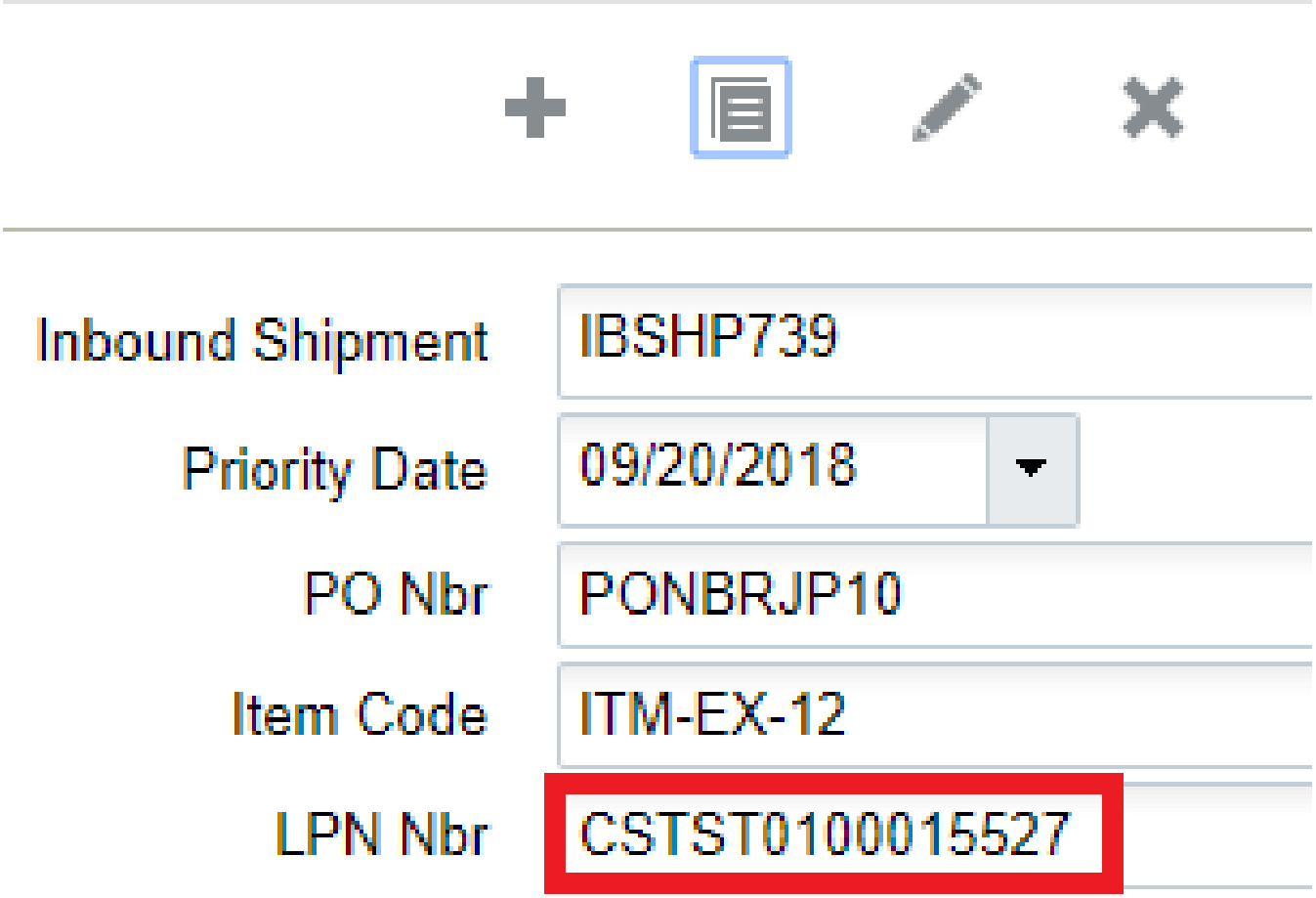


Doing so will generate an LPN number for the selected record.



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

4. Paste (Ctrl+V) the LPN to the “LPN Nbr” field.

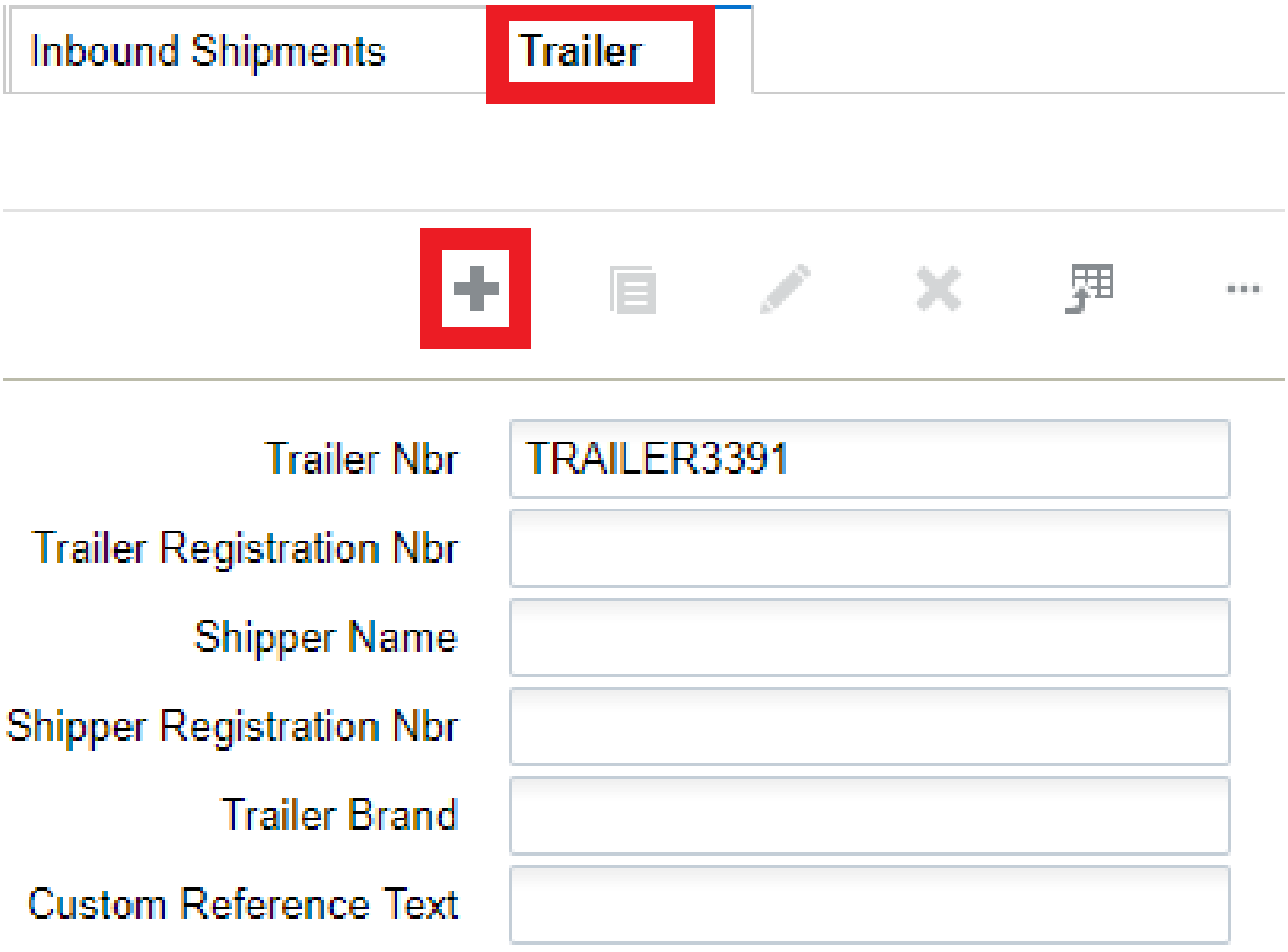


5. Click “Save” and repeat for the remaining records that need to be consolidated.

Trailer UI

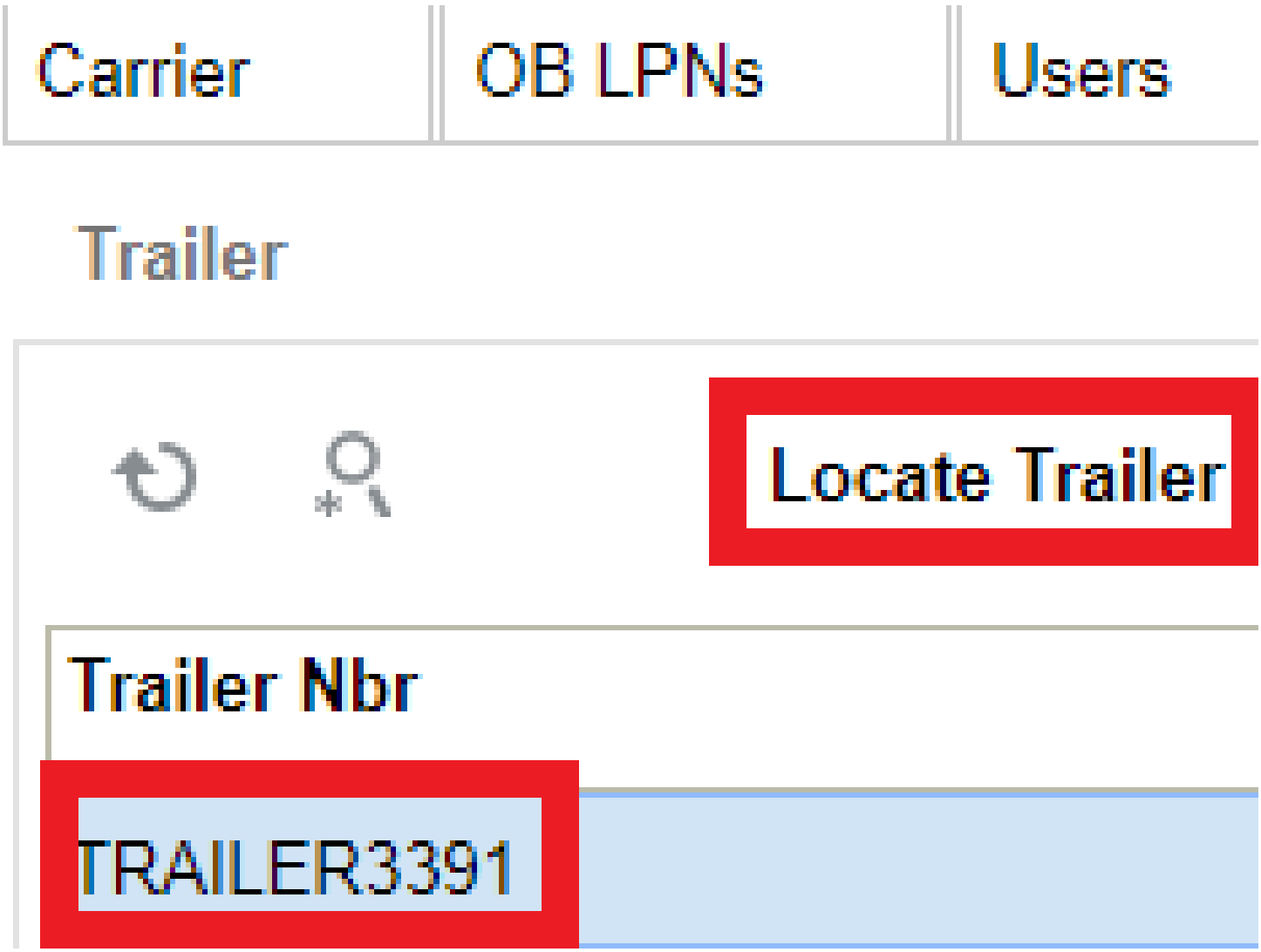
The Trailer UI allows you to define information associated with the trailer, such as associated orders. The Trailer UI also allows you to locate trailers to the yard.

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

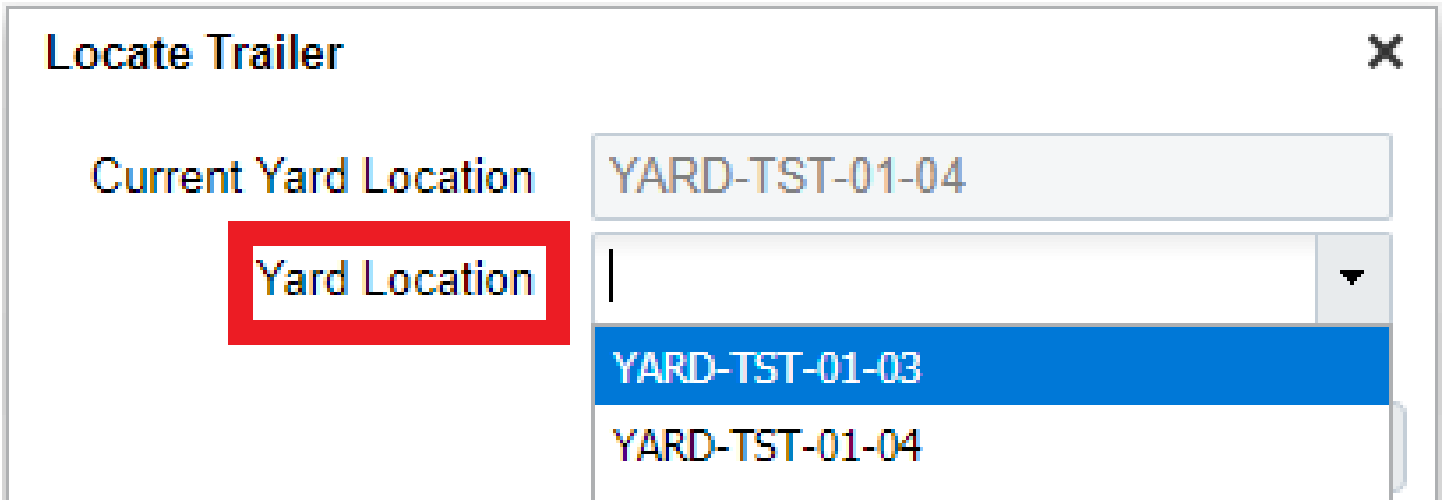


You can add custom reference text for the trailer if needed.

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



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.



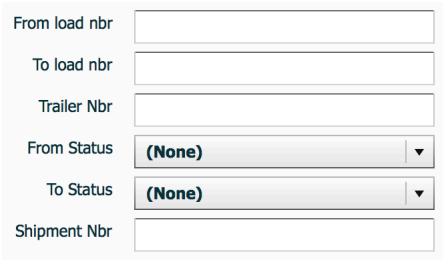
The Locate Trailer button allows you to locate trailers from the Trailer UI, Appointment UI, IB Load, and OB Load screens.

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.

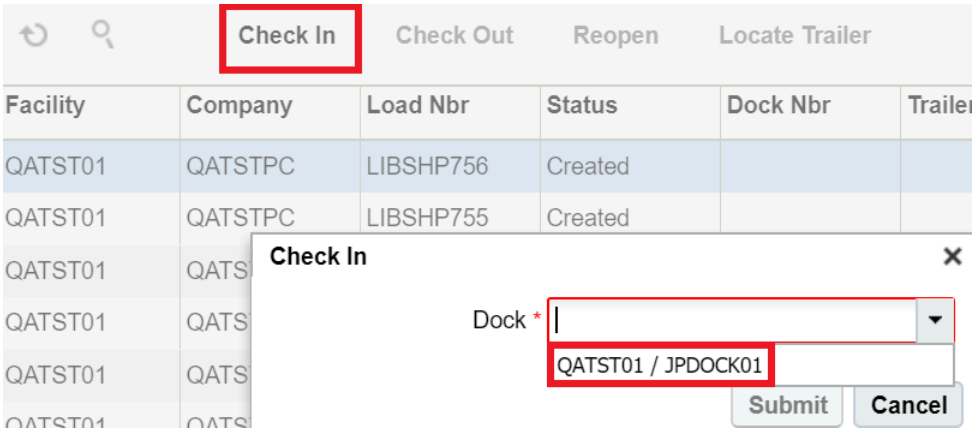
Checking in a Load

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.



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.



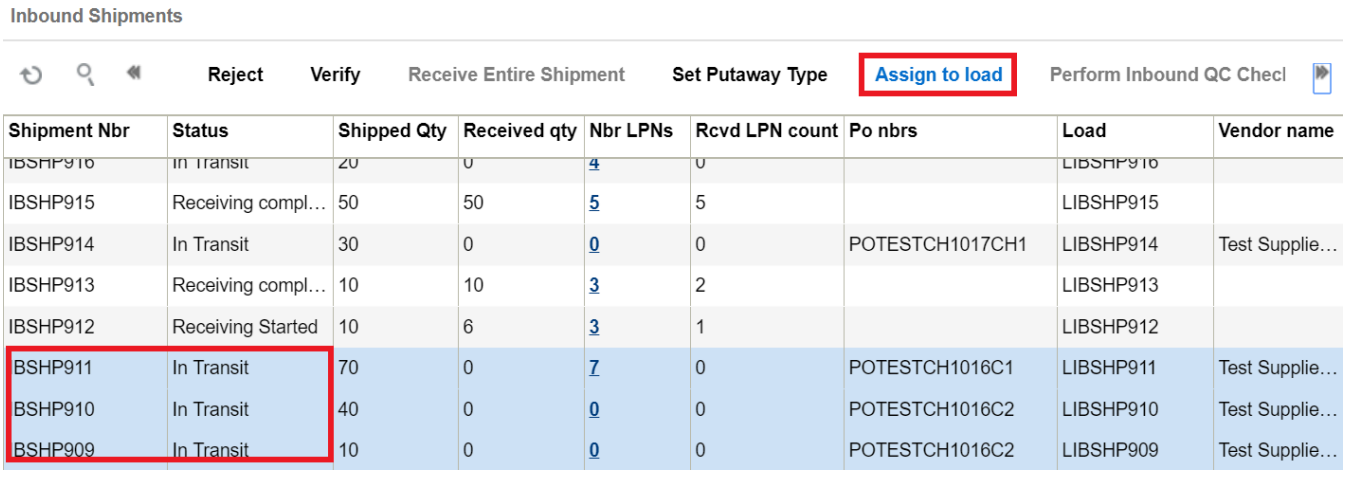
After user checks in a Load, the system will update the dock location on trailer.

Assigning Multiple ASNs to the Same Load

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

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

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



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

Adding Attachments in IB Load

You can capture and attach a picture of the container, trailer or might want to upload ASNs, POs, or another document related to the inbound load. You can also manage attachment to Outbound Load UI via an additional key.

Note: Only users with Load/Upload Files Permission can have access this button.

To attach, view, or delete the attachment, do the following:

1. Go to IB Load (*IbLoadView*) > Select the record.

   Note: On selecting none, multiple IB Loads, or a single IB Load with canceled status, the system disables the button.

2. Click **Upload Attachments** button. Upload Attachment dialog box opens.
3. Click the Choose Files folder and browse through your files.

   Note: The attachments uploaded are verified through ICAP scanning and validated for file type (against the 8 types listed in oce_file_type table except 'ALL'). The system supports upto max file size of 10 MB.

4. Click Upload. On completion, “File(s) uploaded successfully” message is displayed.
5. Click **OK**.

To View, Download, or Delete the Attachment

1. Enable the **Nbr Attachment** field checkbox from the grid. This field displays an incremental number of attachments with a link and are uploaded successfully to OSS.
2. Click the numbered link in the column for the record you want to download or click (X) to delete the attachment. The Nbr Attachment screen opens.
3. Select the record to download or click (X) to delete. The deleted records don't appear in the result grid and the count in the Nbr Attachments field of IB Load is decremented accordingly.

Appointments

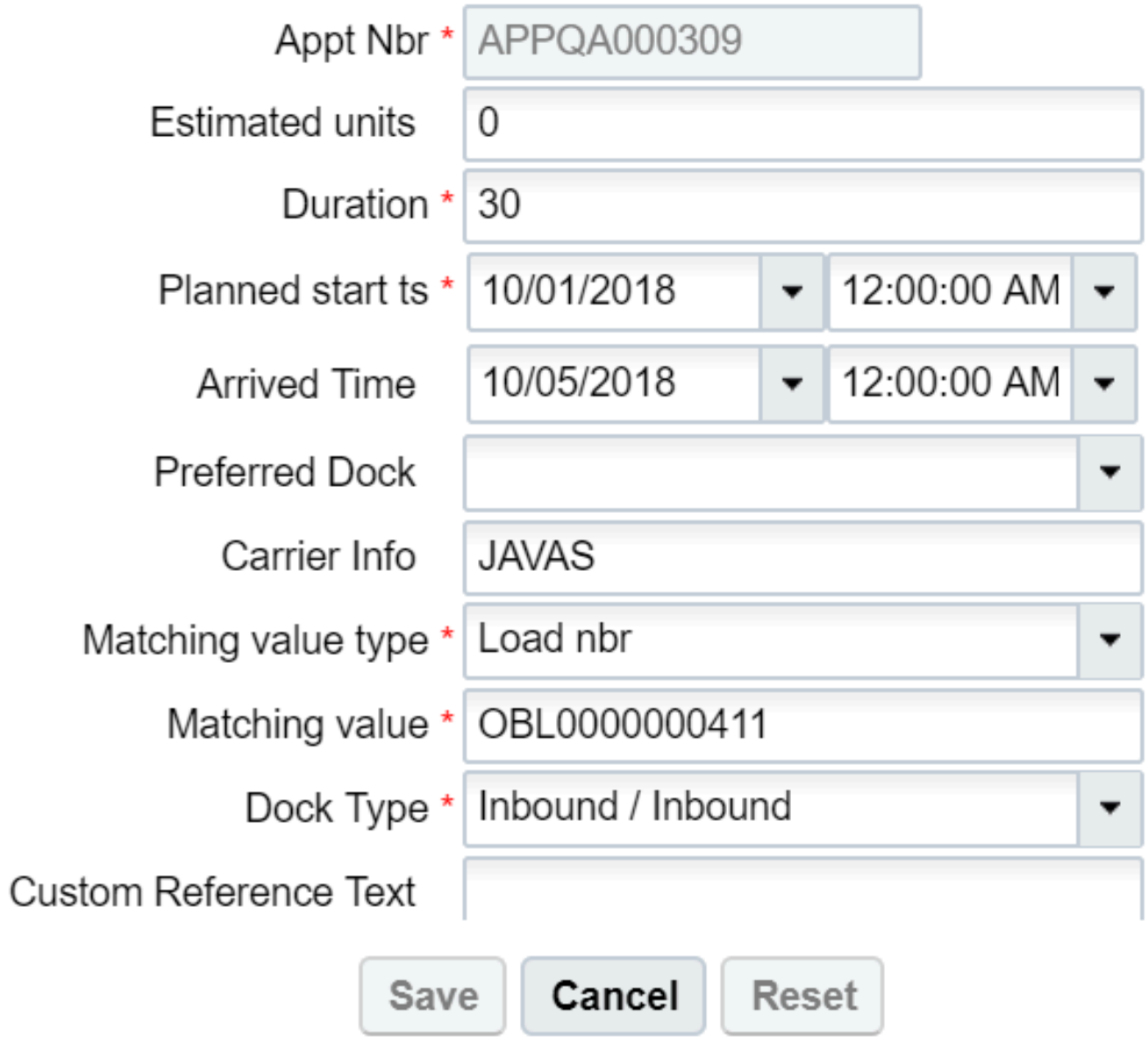
Users can alternatively use Appointments for receiving ASNs into Oracle WMS Cloud. Appointments are useful for tracking the time discrepancies in various metrics such as planned and actual arrival time and the lead-time from the trailer’s check-in time to the receipt of the first LPN into the system.

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

Creating Appointments

1. Go to the “Appointment” screen.

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

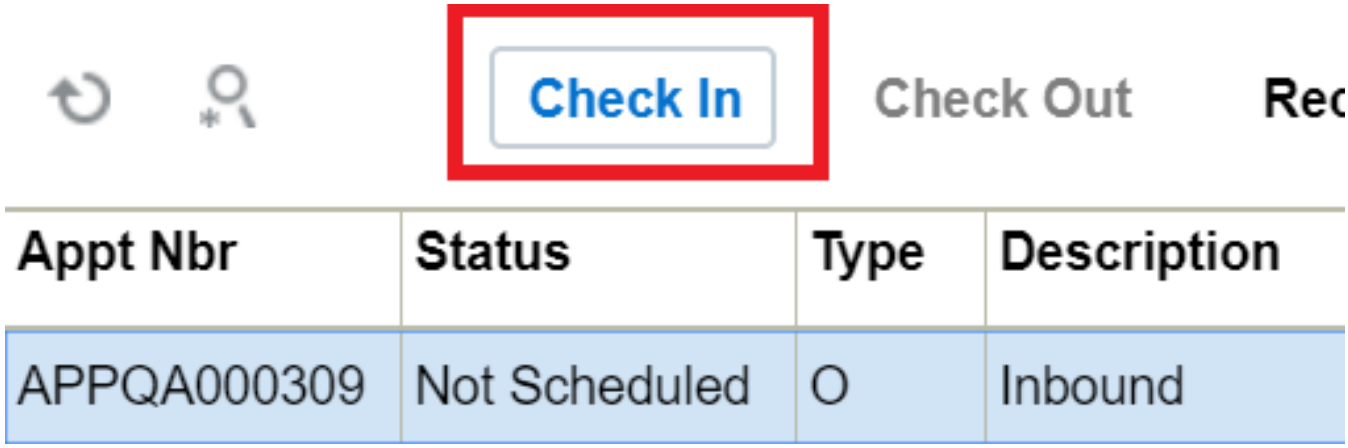


Description of fields:

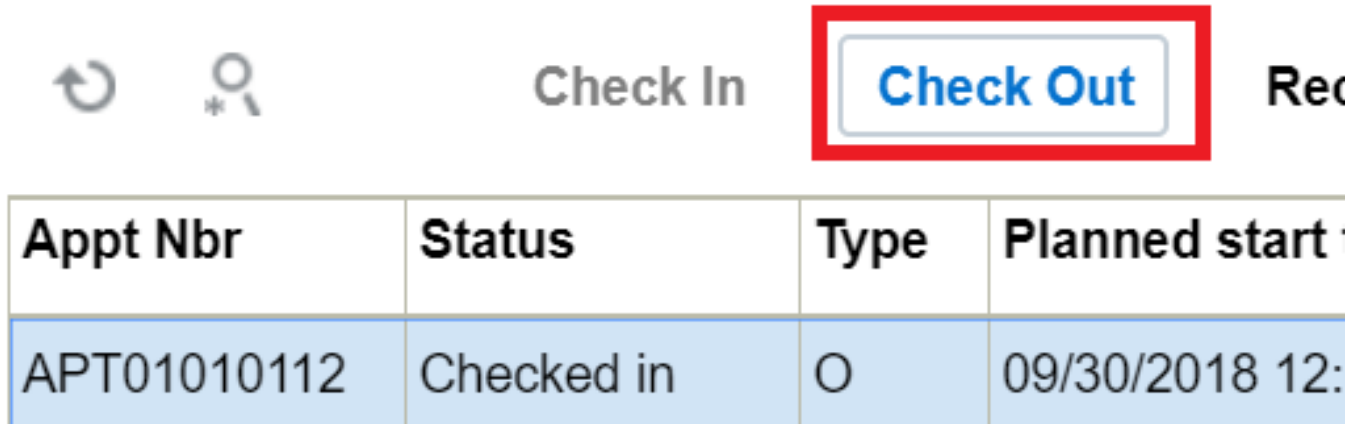
- **Appt Nbr:** Appointment Number
- **Estimated units:** The estimated units in the ASN.
- **Duration:** Estimated time taken to receive. There is no time measurement here, so it is up to the user to decide whether to use it in minutes or hours.
- **Planned start ts:** The Planned start date (and time,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

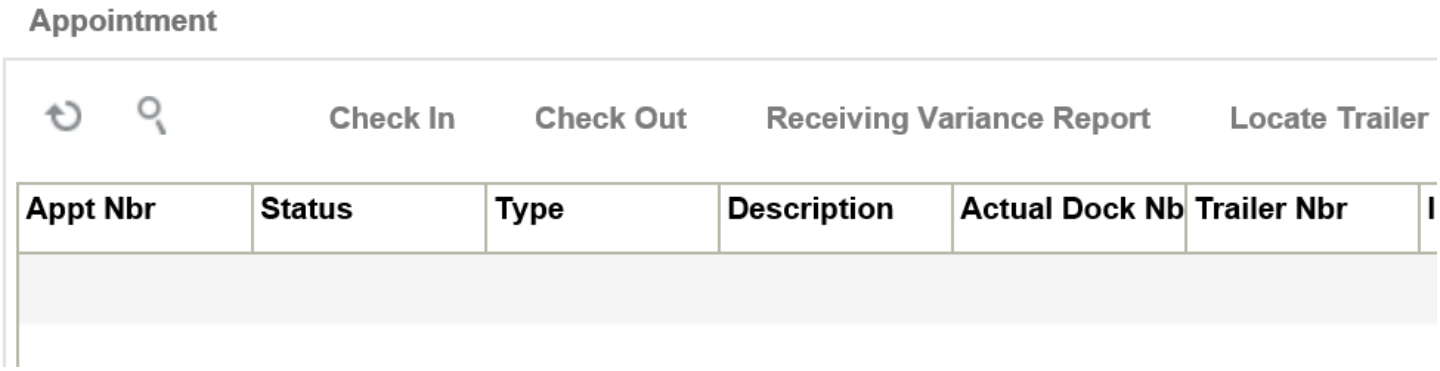
3. Click “Save”.
4. Once the Appointment is created, you can check-in the Appointment by selecting the record, choosing a Dock Door from the drop-down and clicking “Check In”.



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



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



- **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 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 Mobile 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 Mobile transaction. 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 Mobile transaction.

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: • 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 itemsreaches 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.

Mobile Sort and Receive

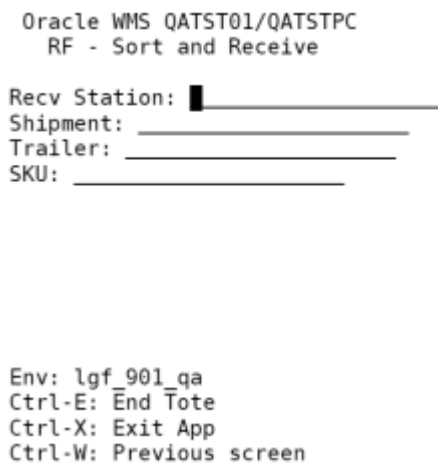
The Module for Sort and Receive is 'rf.inbound.cwrfsortandrecv.' The following are the parameters for Mobile Sort and Receive:

Parameter	Parameter Choice	Description
qty-entry-mode	None|Sku Scan|Sku Qty	**When the parameter is set to 'SKU Qty'**, users are required to scan SKU and quantity to sort and receive **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. **Default value**- Blank (acts as Sku Scan)
scan-shipment-load	None|Scan Load|Scan Shipment	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. **Default value-** Blank (acts as Scan Shipment) **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. **When the parameter is set to 'Scan Load'**, you need to scan the Load number before scanning the SKU code
allow-inv-exp-override	None|Allow Inventory Expiry Check Override	This parameter allows you to block the receiving of expired LPNs. **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. **When the parameter is set to none**, the system will not allow you to receive expired inventories. **Default Value:** Blank

Parameter	Parameter Choice	Description
allow-rem-exp-override	None|Allow % Remaining Expiry Check Override	**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. **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. **Default Value**: Blank
capture-date-type	None|Prompt for expiry date|Prompt for manufacture date	For lot controlled inventory, this parameter determines if the screen prompts for the 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

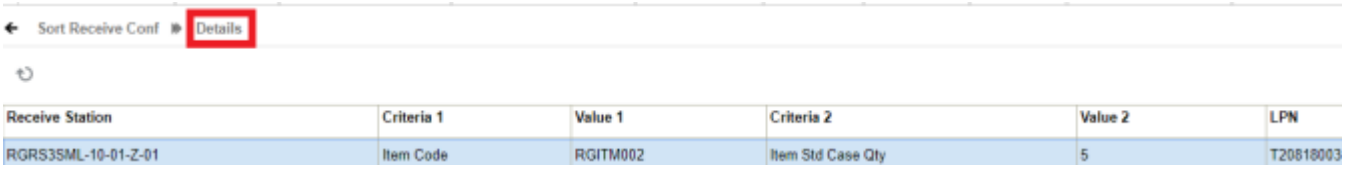
Use the handheld device to scan the sku in the ASN and the system will run the sortation rules and take you to one of the receiving stations based on whichever rule fires. Next, you can put the sku into an existing LPN or open a new LPN. As soon as the break condition is reached, the LPN will be ended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

The initial Sort and Receive screen looks like the following:



If the SKU is a batch or Expiry tracked item, the 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.



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 “RVSPLPN01”. 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

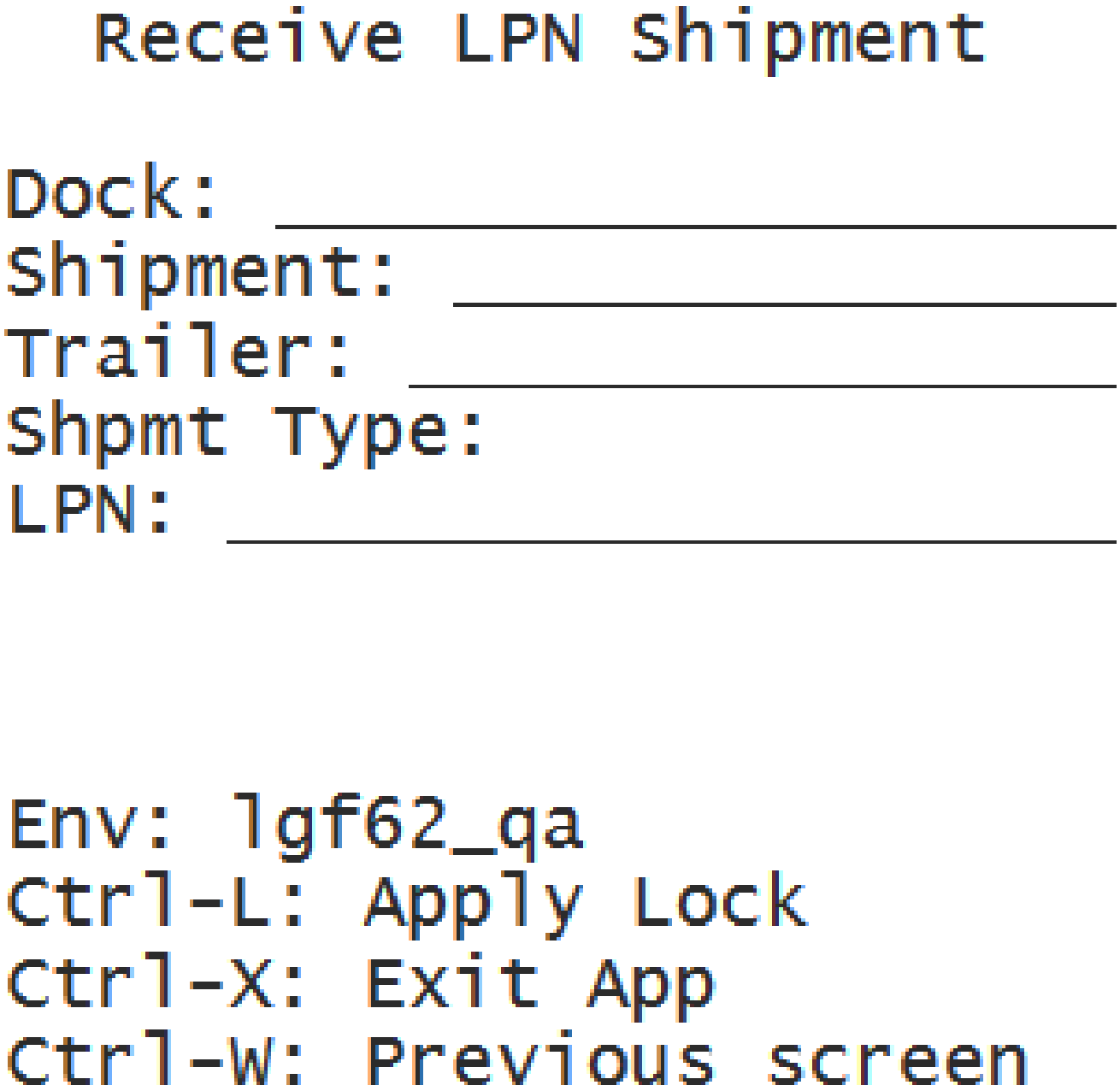
There are two main types of receiving in Oracle WMS Cloud:

- Receive by ASN (rf.inbound.cwrfrecvlpnshpmt)
- Receive by Load (rf.inbound.cwrfrecvlpnload)

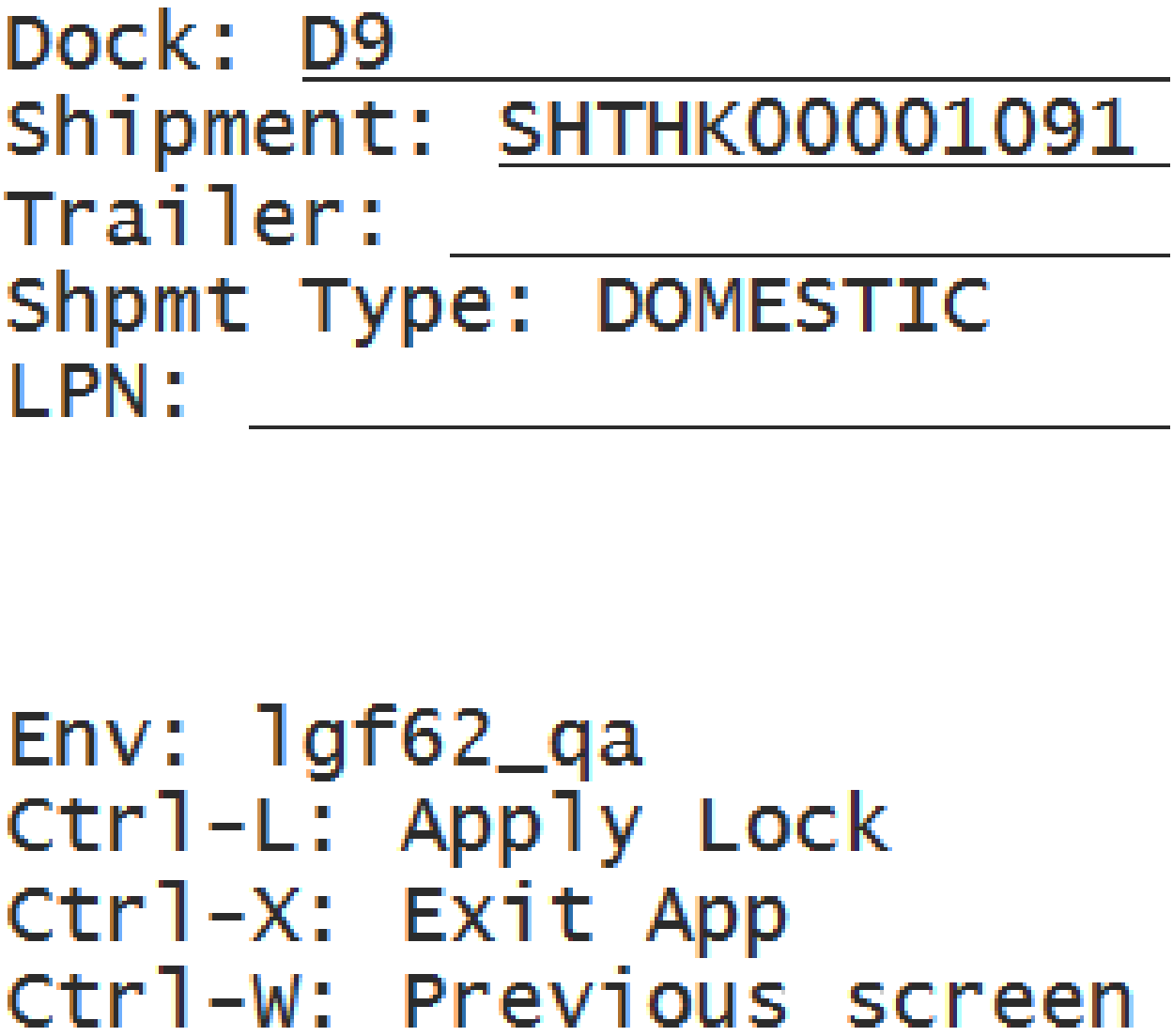
Receive by ASN

The first type of receiving is a Mobile module that prompts you to scan the ASN. To add this, go to “Screen Configuration”, click the Create button and select “ ***Recv {lpn} Shipment”.*** Add a name for your screen name.

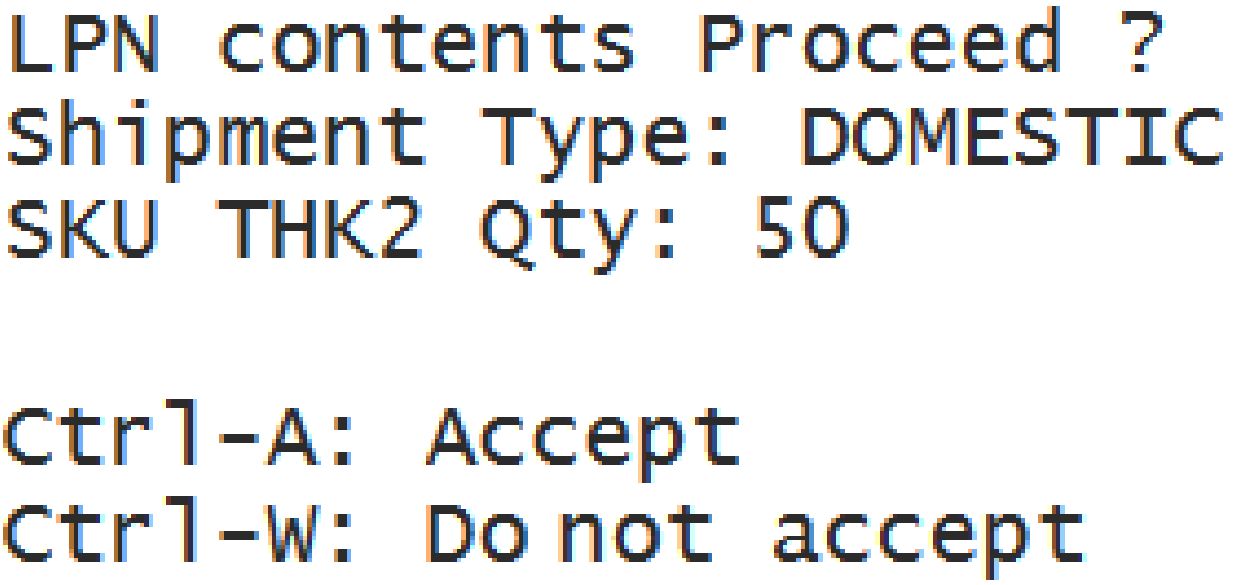
1. Go to the “Receive LPN Shipment” module.



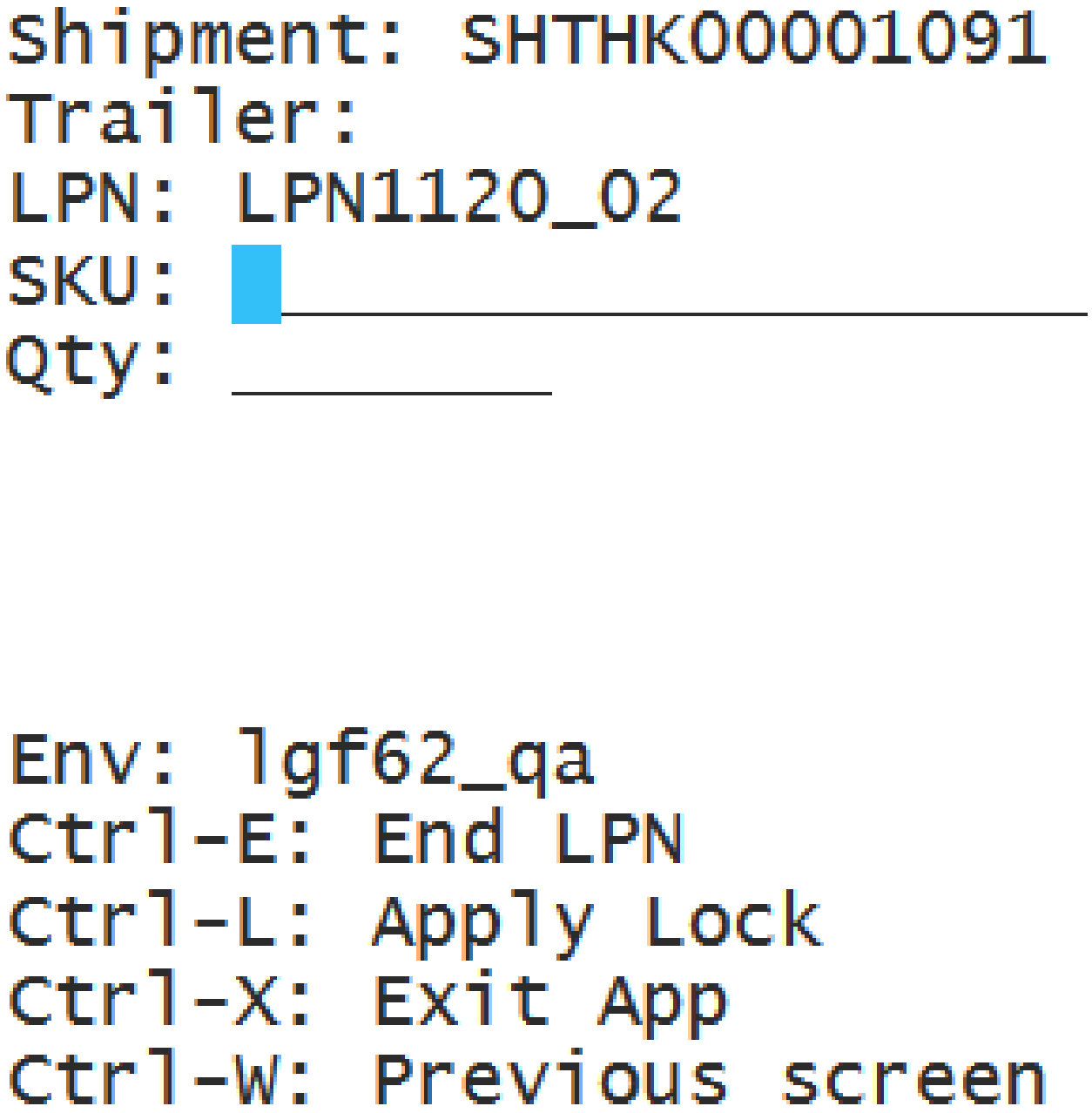
2. If the ASN's Load Number is checked into a dock, scan the dock number. Otherwise, skip the "Dock" field by pressing Tab.
    a. If the Dock is scanned, the system will automatically populate the ASN in that dock.
    b. If the trailer number is included in the ASN record, it will automatically be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



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.



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



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 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.

Prompt Before Overriding Inventory Attributes During Receiving

The system will prompt you when you override inventory attributes of SKUs using **Receive (LPN) Shipment (rf.inbound.cwrfrecvlpnshpmt)** and **Receive Load (rf.inbound.cwrfrecvlpnload)** transactions.

A warning message appears when you override an inventory attribute in scenarios where the attribute sent on the shipment is replaced by a newly scanned inventory attribute. Also, you have the option to make the message a hard error and prevent unintentional scanning or replacing of different inventory attribute values.

The following messages are added in the **Receive (LPN) Shipment** (rf.inbound.cwrfrecvlpnshpmt) and **Receive Load** (rf.inbound.cwrfrecvlpnload) transactions for both Cartonized and Non-cartonized ASNs:

- For Cartonized ASNs, the system displays "*Scanned inv attr - SKU combination is not present in the LPN*".
- For Non-Cartonized ASNs, the system displays "*Inventory attribute does not match the SKU-shipment combination*".

> **Note:** By default, these messages are enabled. You can disable these warning messages from the **Edit Facility message** configuration pop-up.

The warning message will appear only when the inventory attribute is mentioned in the ASN detail and you scan a different inventory attribute, or if you provide a new attribute that is not mentioned in the ASN detail (for example, during over-receiving). This message will not appear if the Inventory Attributes are not passed in the ASN detail.

New Facility Parameter to Associate Blind LPNs

You can associate a Shipment Type to a blind ASN using the facility parameter "SHIPMENT_TYPE_FOR_BLIND_IBSHIPMENT". This also allows you to harness additional flags on the shipment type during receipt like the "allow receipt of expired inventory" flag.

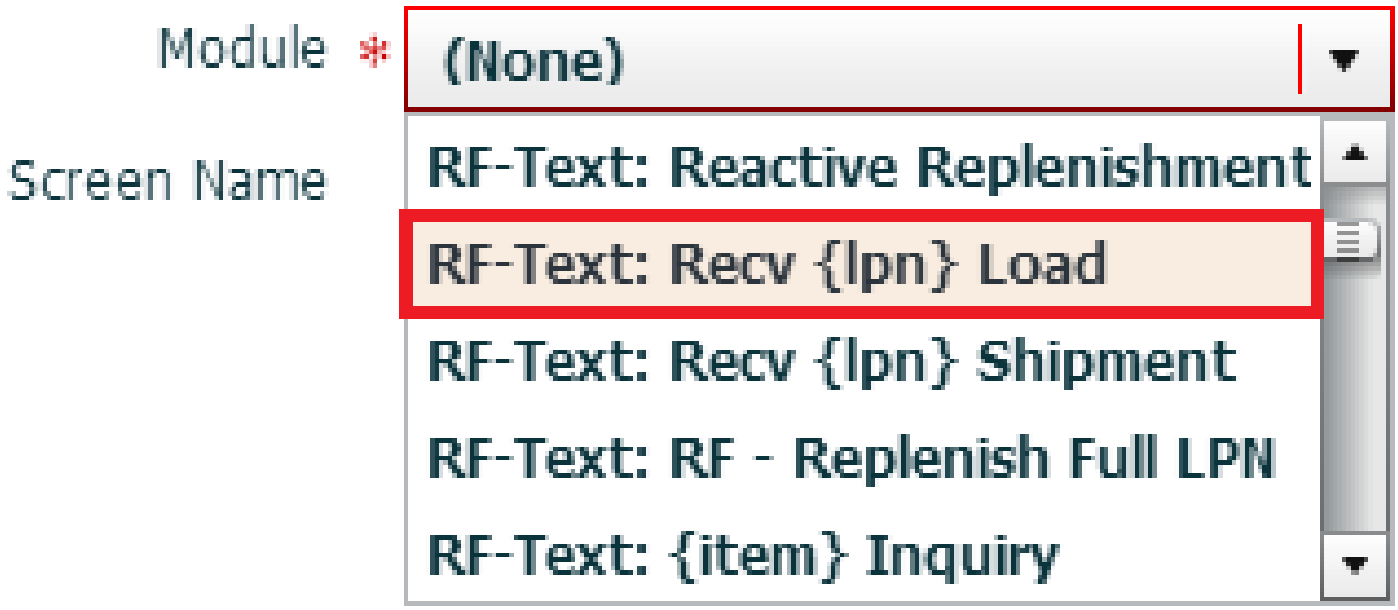
1. Go to Facility Parameters.
2. Search for the parameter "SHIPMENT_TYPE_FOR_BLIND_IBSHIPMENT".
3. Click on the pencil (edit) icon to configure the parameter "SHIPMENT_TYPE_FOR_BLIND_IBSHIPMENT" with a valid value (i.e, Shipment Type configured in the logged-in company).

   > **Note:** By default the parameter value is <Blank>. In such scenarios, the blind ASNs are created without a Shipment Type.

4. Perform the **Recv Shipment (Blind ASN Receiving)** transaction. Now, the blind ASNs will be associated the configured Shipment Type.

Receive by Load

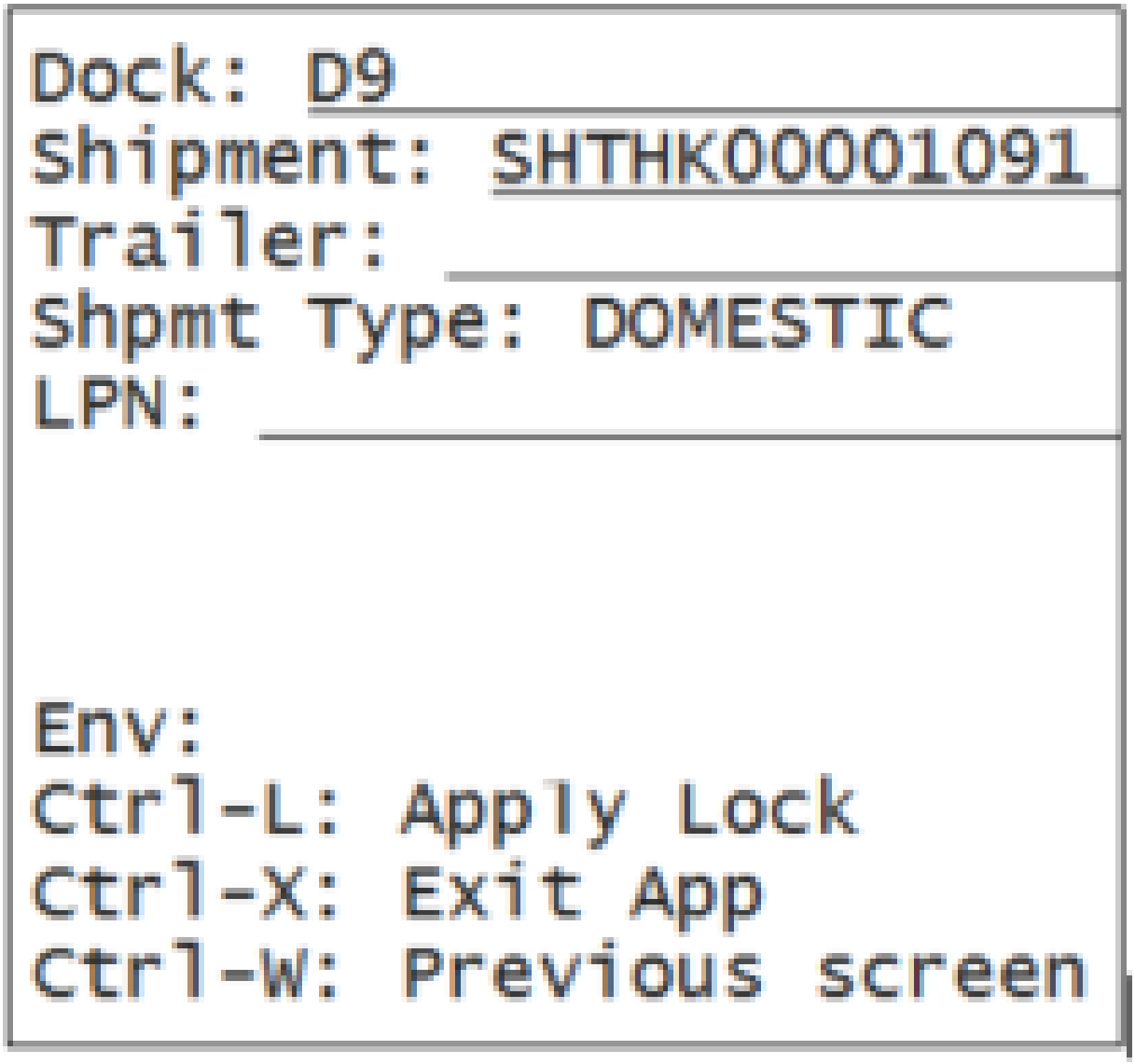
The alternative method is receiving through Loads. You can use this option for scenarios where a Load has multiple ASNs. To add this, go to the "Screen Configurations" screen, click the Create button () and select "Recv {lpn} Load":



Receiving process

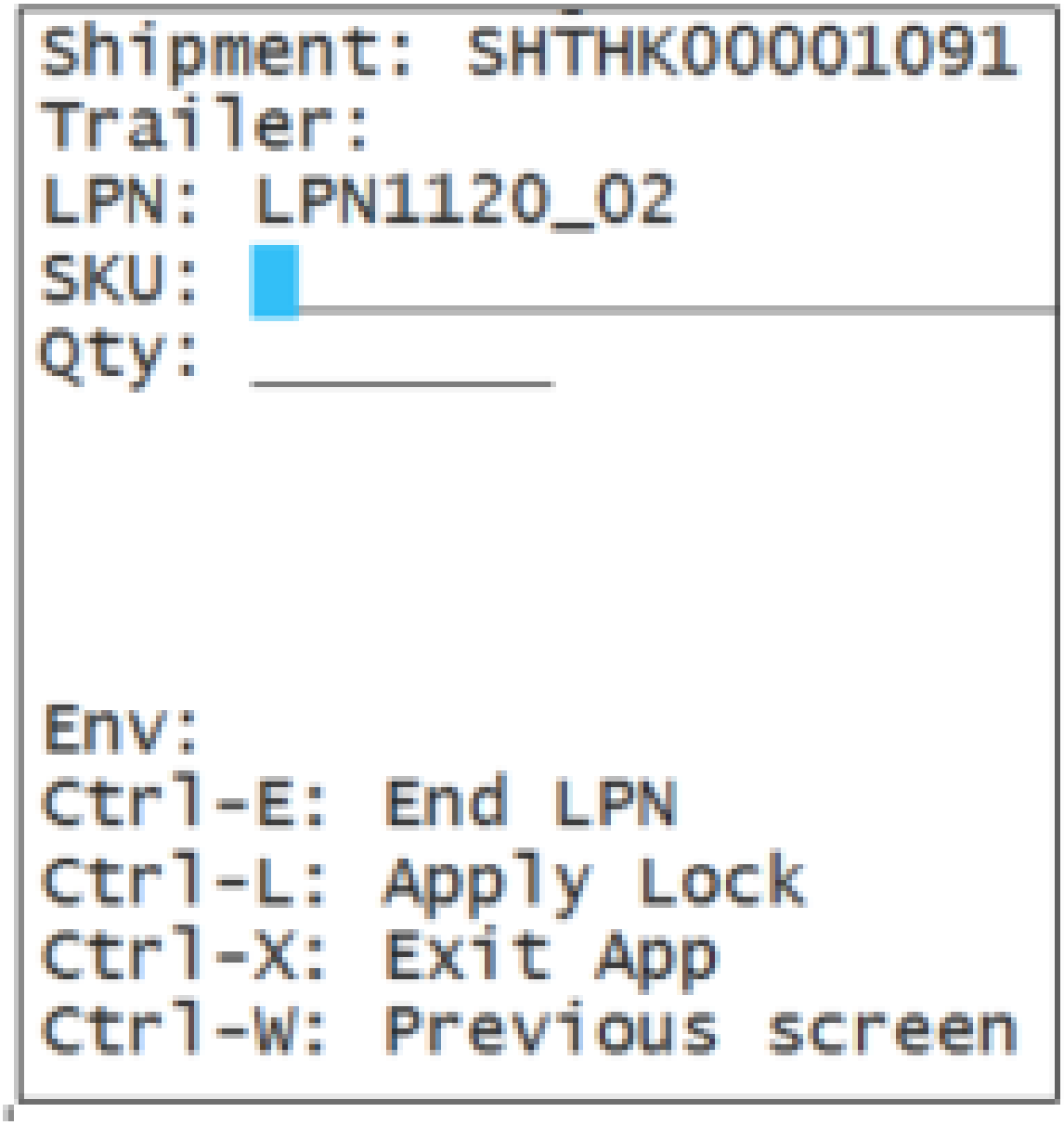
1. Go to the “Receive LPN Load” module.
2. If the ASN’s Load Number is checked into a dock, scan the dock number. Otherwise, skip the “Dock” field by pressing Tab.
3. If the Dock is scanned, the system will automatically populate the ASN in that dock.

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.



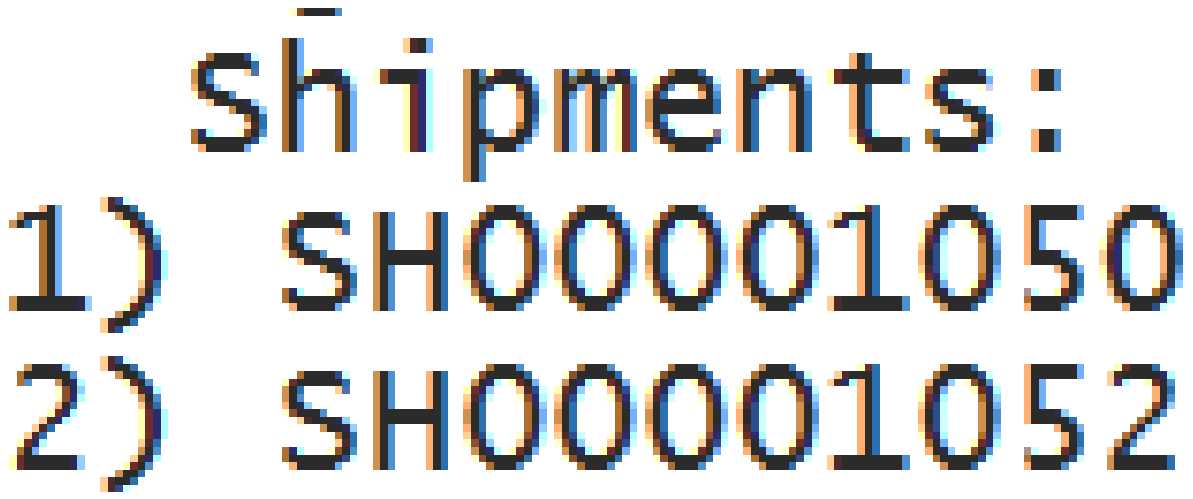
5. Scan the LPN that will be received.
6. If this is a smart LPN (ASN is cartonized), the system will recognize the LPN's contents and display a message. Press Ctrl-A to proceed.

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



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.



10. Repeat steps four and five for subsequent LPNs.

Note: If you receive contents of different Inbound shipments in a single Inbound LPN, only one of the shipments will be assigned to the Inbound LPN, and the Inbound LPN Inquiry will not show all the underlying shipments. It is advisable not to receive multiple Inbound Shipments in a single LPN if granular tracking of each shipment by received LPN is required.

Mobile Receive Single SKU

The**Mobile Receive Single SKU (rf.inbound.cwrfrecvsinglesku)** transaction simplifies the process of receiving non-cartonized shipments by reducing the number of scans required and increasing shipment receiving efficiency.

When receiving non-cartonized shipments where the quantity of a particular SKU is same across multiple LPNs, this transaction allows you to scan or enter the shipment, SKU, and quantity once. Then, you can scan the LPNs without re-entering the SKU and quantity. If required, you can use the hotkey “Ctrl-S: Change SKU” to update the SKU and quantity.

Note: With this transaction, you can receive only single SKU LPNs and it is supported only for non-cartonized shipments.

The following steps describe the basic transaction flow of the Receive Single SKU transaction:

1. Invoke the **Receive Single SKU** transaction.
2. Scan or enter the following details and hit Enter:
    - ASN
    - Item

3. Scan or enter the following details and press Enter:
    - Qty (UOM)
    - LPN

> **Note:** You can use the hotkey “Ctrl-S: Change SKU” to change the SKU details and update the quantity to proceed with further LPN scan(s).

4. Scan the next LPN with the combination of same ASN, Item, Qty (UOM).

The screen behavior changes based on the screen parameters configuration. For more details, refer to the Mobile Screen Parameters file (*Oracle WMS Cloud Information Center* > **Documentation** tab > click the link under **Current Documentation** > refer to the **Mobile Screen Parameters Quick Reference** document.

Key validations when the screen parameter “prompt-location” = “Yes”:

- If Inbound Load is checked into a dock location, after receiving, the system skips the location prompt because the IBLPNs are automatically updated with the dock location.
- After scanning the location, the system validates it based on criteria such as Item Assignment Type and Allow Multi SKU. If the location is valid, the system updates the inventory and proceeds to the next step in the Receive Single SKU transaction.
- When validating the scanned location, the system skips checks for Restrict Lot/Batch, Restrict Inventory Attribute, and location capacity (Max Units, Max LPNs, Max Weight, Min Volume, and Max Volume).

Call Putaway from Receiving

In order to simplify the process of receiving and moving LPNs/Pallets directly to their location as soon as the inventory is received, you have the following options in Receive by Shipment and Receive by Load).

Directed Putaway from Receive by Shipment / Receive by Load

An existing screen parameter "next-screen-to-launch", available in the Receive by shipment (rf.inbound.cwrfrecvlpnshpmt)/ and Receive by Load (rf.inbound.cwrfrecvlpnload) module is now extended to call directed putaway when you receive an LPN/Pallet during Receiving transaction.

The following table lists the conditions in which **Directed Putaway during Receiving** is supported:

Receive LPN/ Pallet by Shipment or by Load	Supports Directed Putaway During Receiving
Cartonize and Non- Cartonize LPN (Single/ Multi SKU)	Yes
LPN with Flow-Through Successful	Yes
LPN as Physical Pallet	Yes
LPN or Pallet receiving	Yes
Palletize Up Front	Yes
Received LPN is subjected to successful Xdock	No
Received LPN is subjected to QC.	No

Receive LPN/ Pallet by Shipment or by Load	Supports Directed Putaway During Receiving
Received LPN is subjected to VAS.	No
When receiving mode is set to Palletize after receipt	No
Received LPN having Lock code (if Prevent putaway flag enabled)	No

- When an LPN/Pallet/LPN as Pallet is received during Cartonize or Non-cartonized Shipment, the system displays the putaway location confirmation screen based on the Putaway method priority associated with the putaway type available on the LPN received. On completing the Putaway transaction, the system navigates back to the receiving screen.
- If the received LPN has a successful flow through, then the system performs Putaway of respective LPN.

Note: If the received LPN/Pallet fails to Putaway, then the system prompts for a drop location if the screen "prompt-location" is not set to "Do not prompt" in the receiving screen.

:

- If the configured Putaway screen is invalid or unavailable, then the system displays an error message "*Cannot call next screen. Screen configured % screen name % is not valid*".

Directed Putaway for Upfront Palletization from Receive by Shipment/Receive by Load

- After performing Upfront palletization, and users receive LPN's with respect to Pallet and on ending the Pallet (CTRL+E), the system displays the Putaway screen (Putaway location confirmation) configured in the Receiving transaction.

Note: When you end the pallet (CTRL+E), the system displays a confirmation message. Upon accepting, the Putaway location is prompted. After completion of Putaway, the screen navigates back to the Receiving screen.

- An error "**Cannot call next screen. Screen configured % screen name % is not valid**" message is displayed when calling putaway fails due to invalid screen during END Pallet.

Calling Distribute LPN from Putaway

You can scan LPNs after receipt in the Putaway transaction (when configured to call distribution.) The system will first try to allocate the LPN for Xdock or flow through allocations and if unsuccessful, then the system falls back to Location determination logic.

When the system invokes Distribute LPN (rf.outbound.cwrfdistributelpn) from Directed Putaway (rf.inbound.cwrfputaway),if there are no eligible orders (for Xdock and flow-through) for distribution, the system will automatically proceed with putaway for the respective LPN.

Note: After the system performs putaway against the scanned LPN, the system will display a message for you to confirm that you want to proceed with the putaway. If the distribution allocation fails for any reason, the system will display a message and then proceed with the putaway.

Perform Distribute LPN for Allocated LPNs on a Pallet from Putaway

To help users move allocated LPNs from pallets for packing, the system allows you to perform Distribute LPN for allocated LPNs present on the pallet when you scan a pallet in the Directed Putaway transaction.

As long as Directed Putaway is configured with the Distribute LPN transaction:

- The system performs Putaway of a Pallet when all the LPN's on the pallet are not in allocated status by displaying the message "LPN's on the pallet are not allocated proceeding with Putaway".

When all the LPNs on the pallet are in allocated status, the system performs distribute LPN for all the LPN's present on the pallet:

- When there are multiple LPNs on the pallet in allocated status, the system prompts for each allocated LPN (In descending order of each LPN’s last modified time) for performing distribution.

> **Note:** It's not advised to modify LPNs after allocation as this may impact the sequence of LPNs getting prompted for distribution.

- The system prompts for the LPN, then on confirming, the system proceeds with the message to perform Depalletize and distribute the LPN.

You can invoke Putaway transactions from Receiving and locate the inventory to the respective destination, if the putaway type is defined on the LPN/Pallet. This functionality is made available when performing the **Receive by Shipment** (rf.inbound.cwrfrecvlpnshpmt) / Receive by Load (rf.inbound.cwrfrecvlpnload) transaction.

Prevent Appending Scanned Values during Mobile 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 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.
- 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)

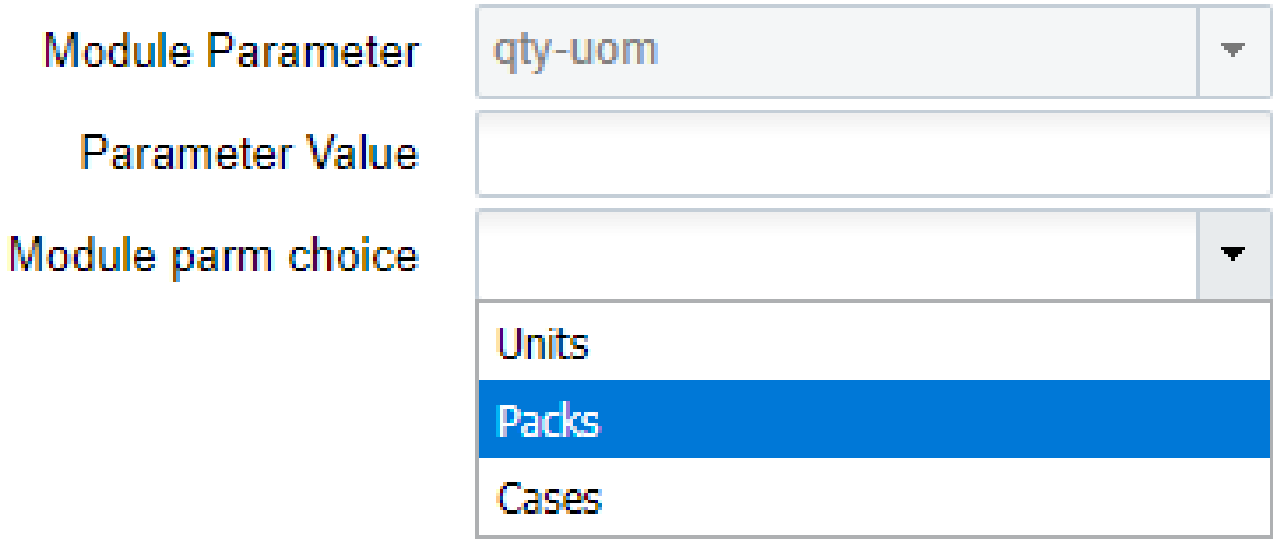
Case Level Receipt

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

Configuration Steps

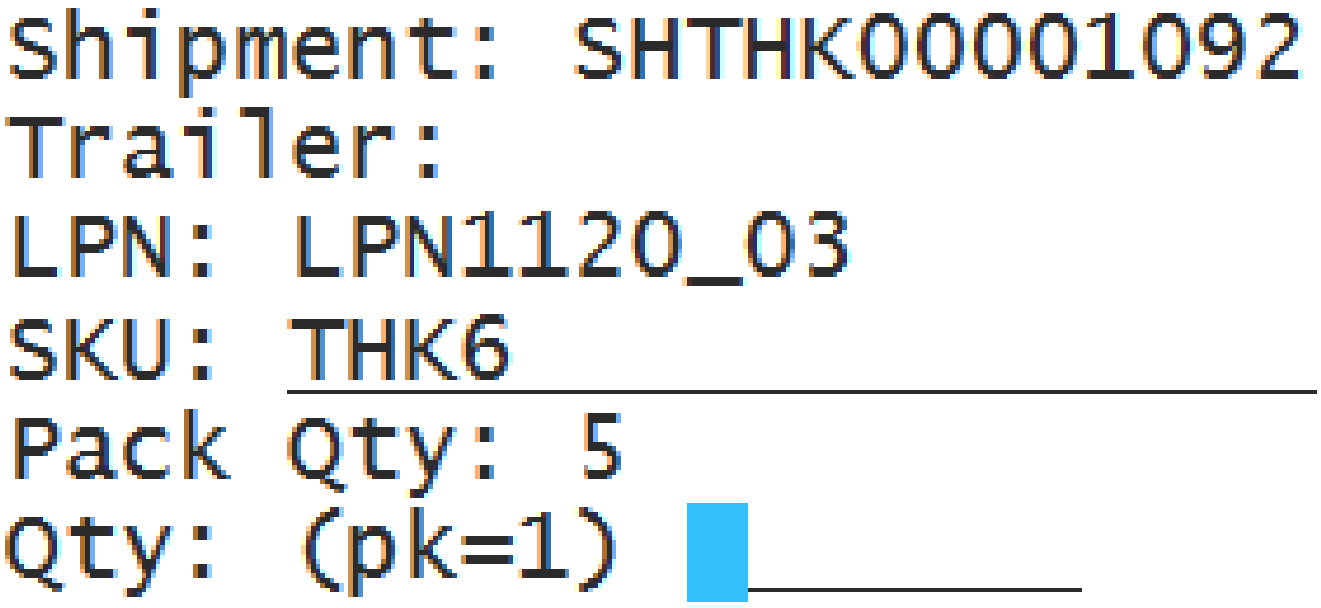
1. Go to the “Screen Configurations” screen.
2. Select the Recv [lpn] Load and click on Details (). This will display all the parameters for this module.
3. Select the parameter “qty-uom” click Edit ().

4. In the “Module parm choice” drop-down menu, select the desired UOM.



Receiving

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



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

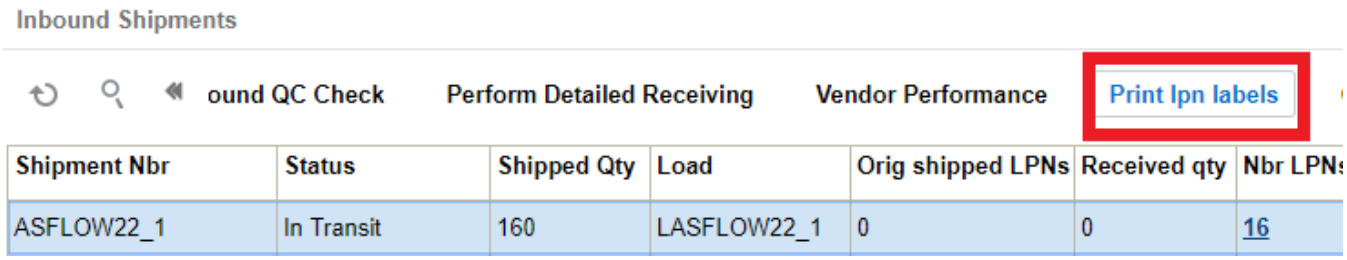
user to compare the physical case/pack quantity against the systemic standard before receiving. In this case, inputting “1” will result in receiving five units of Item “THK5”.

> **Note:** The “Standard Case Quantity” or “Standard Pack Quantity” for this Item must be defined in the Item Master.

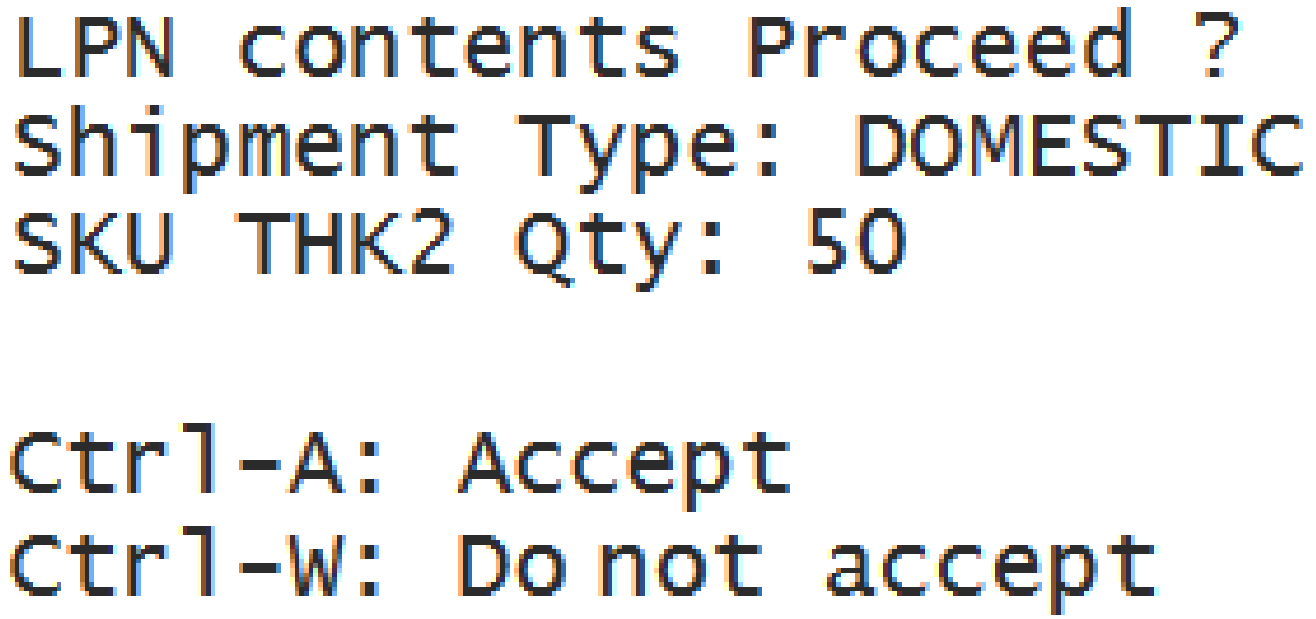
Receiving for Cartonized Shipments

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.



3. Enter the 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.



Receiving unanticipated LPNs for Fully Cartonized Shipments

You can scan an LPN, (that is different from the anticipated LPN) while receiving through 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.

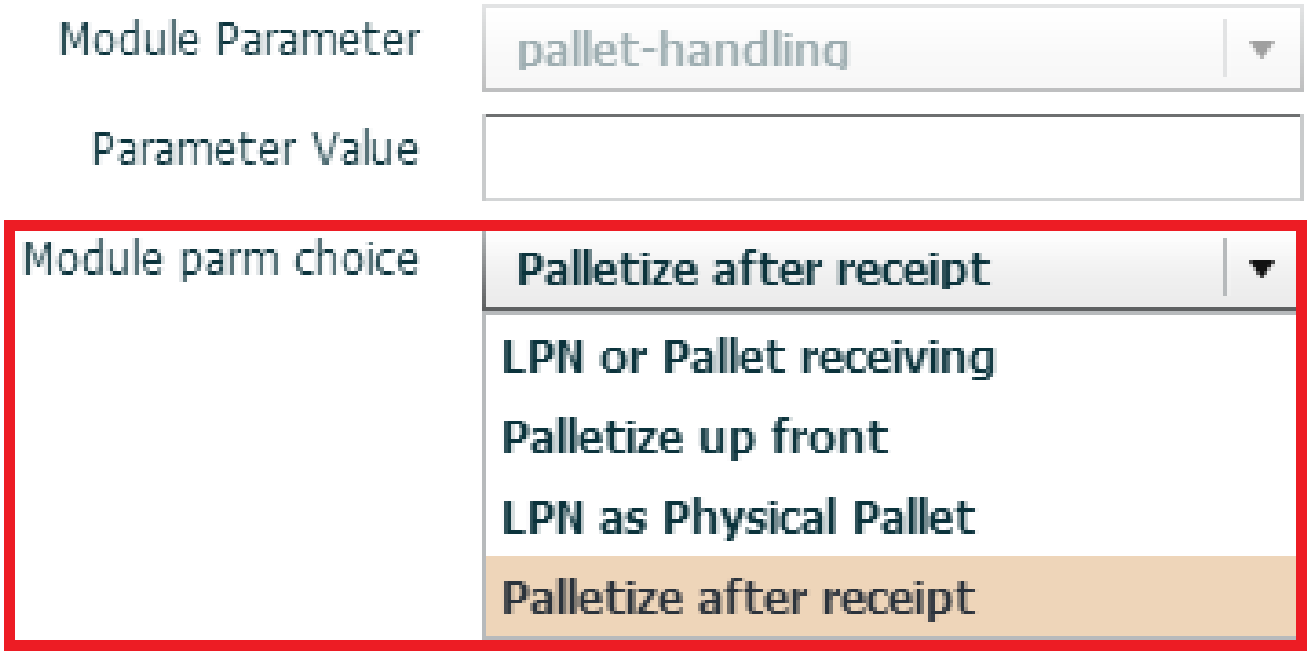
Configuration for Palletization during Receipt

For receiving flows with palletization, the receiving 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 module (rf.inbound.cwrfrecvlpnshpmt) click on Details ().
3. This will open a window with all the module's parameters. Select parameter pallet-handling and click Edit ().
4. Click on the "Module parm choice" drop-down menu and select the appropriate palletization mode.



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 Mobile transaction.

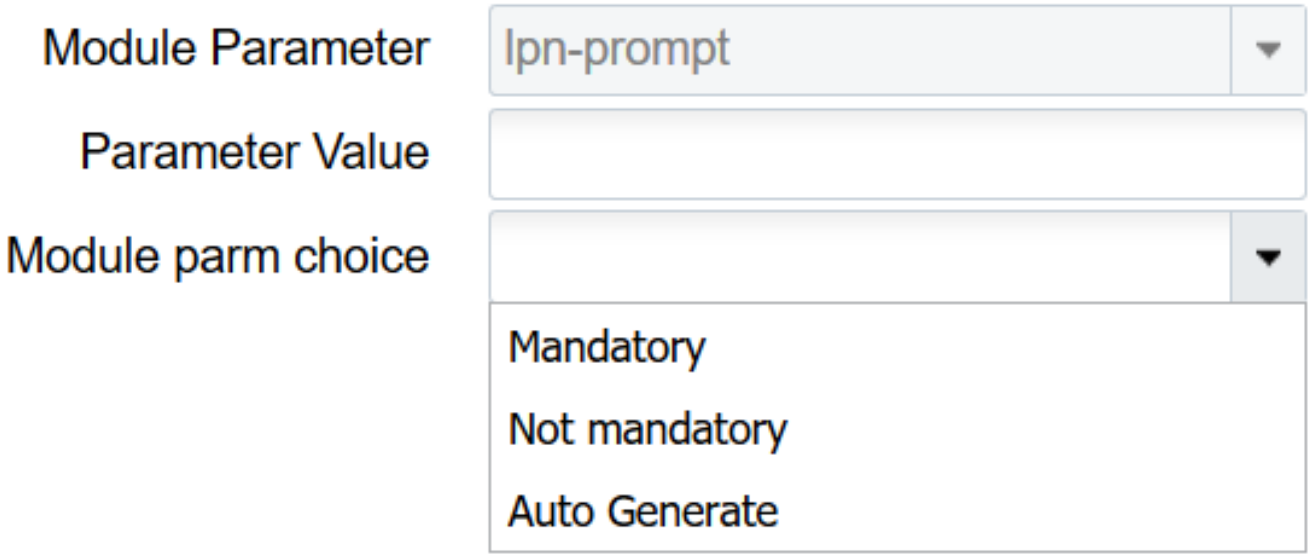
Auto Generate Inbound LPN Numbers

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

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

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



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 **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 **Recv {lpn} Load**, **Recv {lpn} Shipment**, and **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 **Receiving**, set **pallet-auto-generate** to palletize up front mode.

Palletize - Auto Generate Pallet Numbers

In the 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.

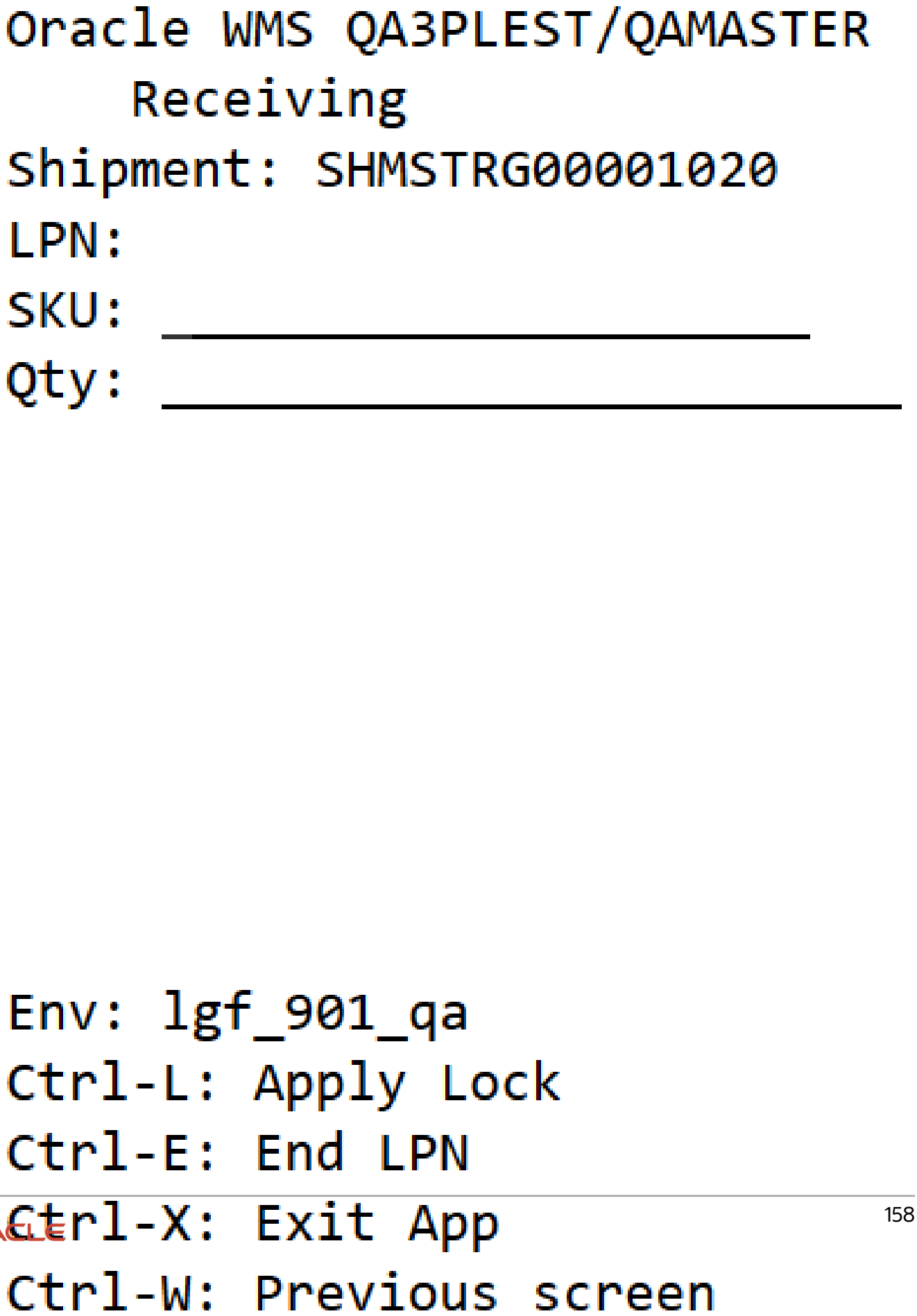
Parameter name	pallet-auto-generate
Parameter type	Selection
Parameter options	Blank, Yes, No
Default behavior	Blank (acts as No)

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

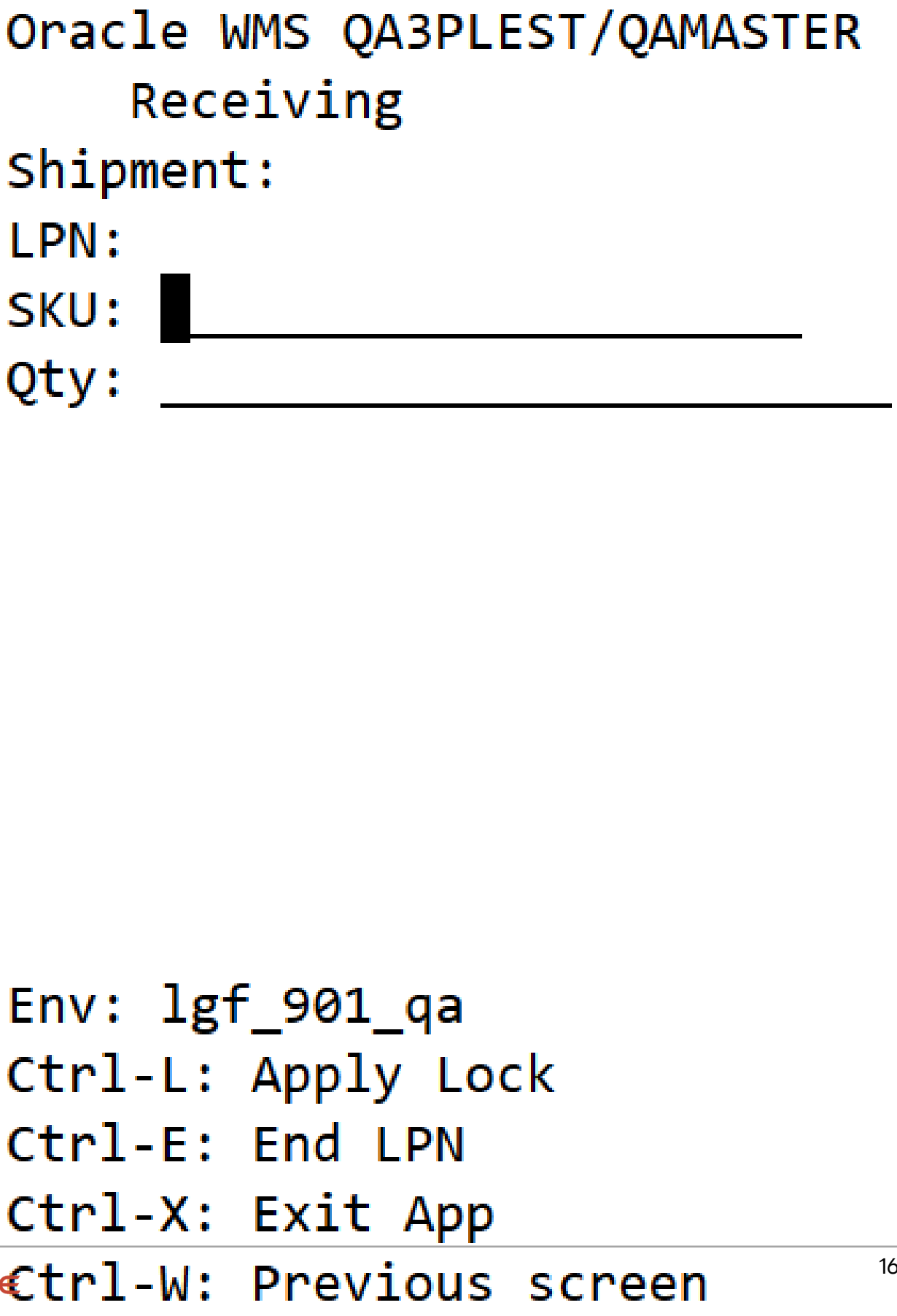
Screen Flow when lpn-prompt is configured as Auto Generate

1. Select the Shipment/ 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.

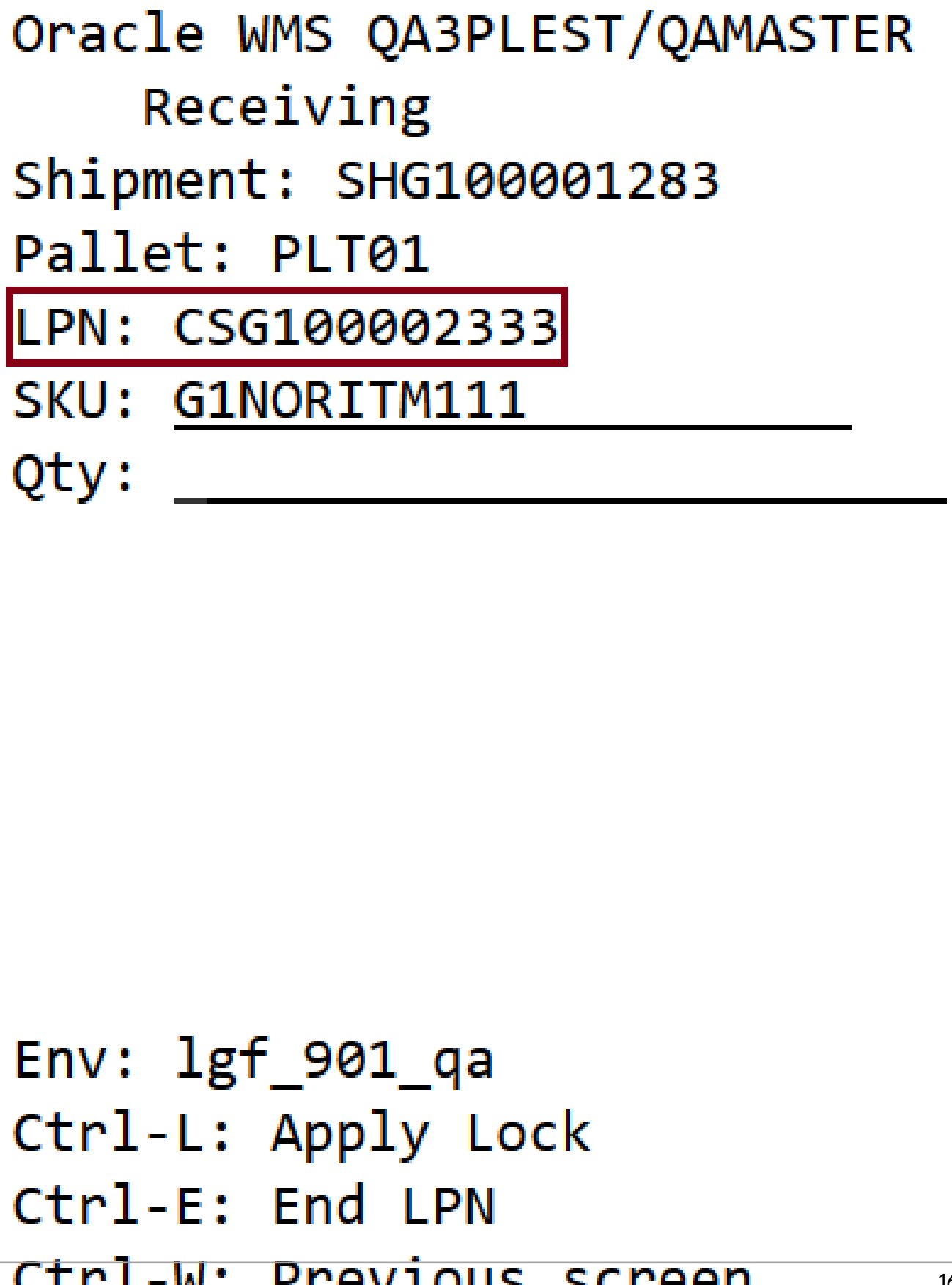

Oracle WMS QA3PLEST/QAMASTER
Receiving
Shipment: SHMSTRG00001020
LPN:
SKU:
Qty:
Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen

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 Shipment/ 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.

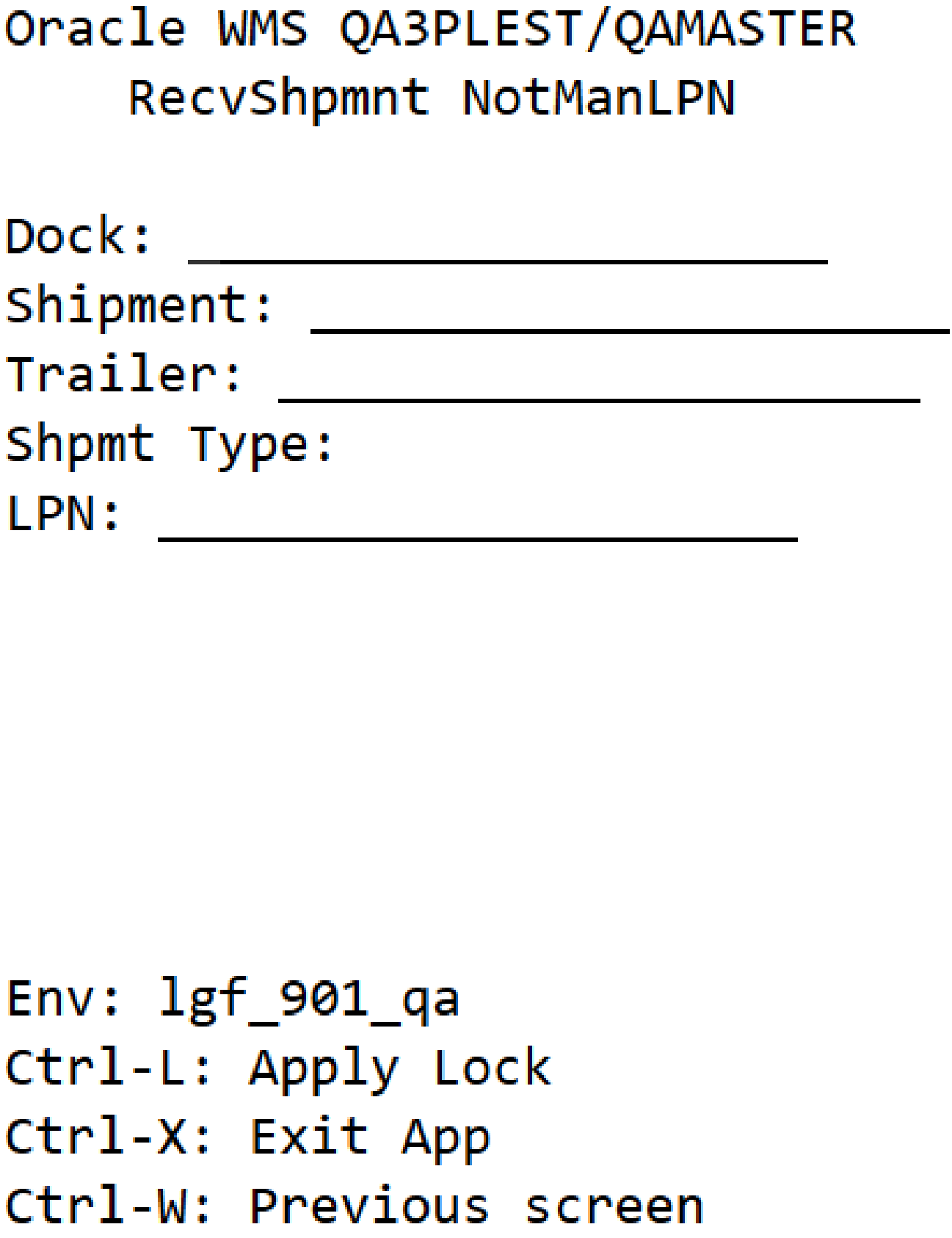

Oracle WMS QA3PLEST/QAMASTER
Receiving
Shipment: SHG100001283
Pallet: PLT01
LPN: CSG100002333
SKU: G1NORITM111
Qty:
Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-W: Previous screen

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.**

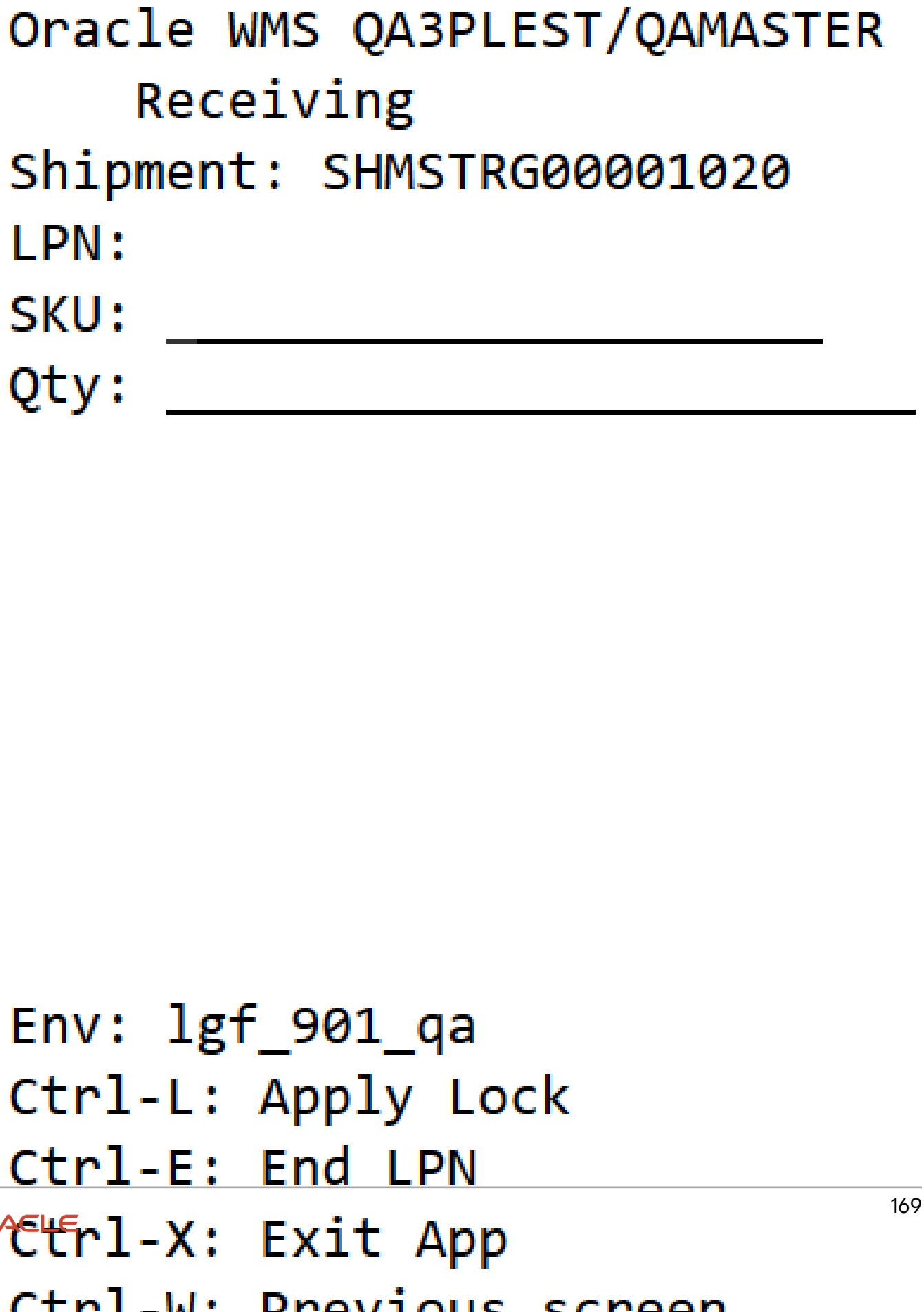
Screen Flow when lpn-prompt is Configured as Not Mandatory

1. Select the Shipment/ Load option which has “lpn-prompt” configured as **Not Mandatory.** TheLPN 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 “lpn-prompt” is configured as **Not Mandatory**, it is mandatory to enter the Shipment Nbr/Load Nbr.
    a. If the shipment’s load is checked in to a dock door, enter the dock door. This will automatically populate the Shipment Nbr on that dock.

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

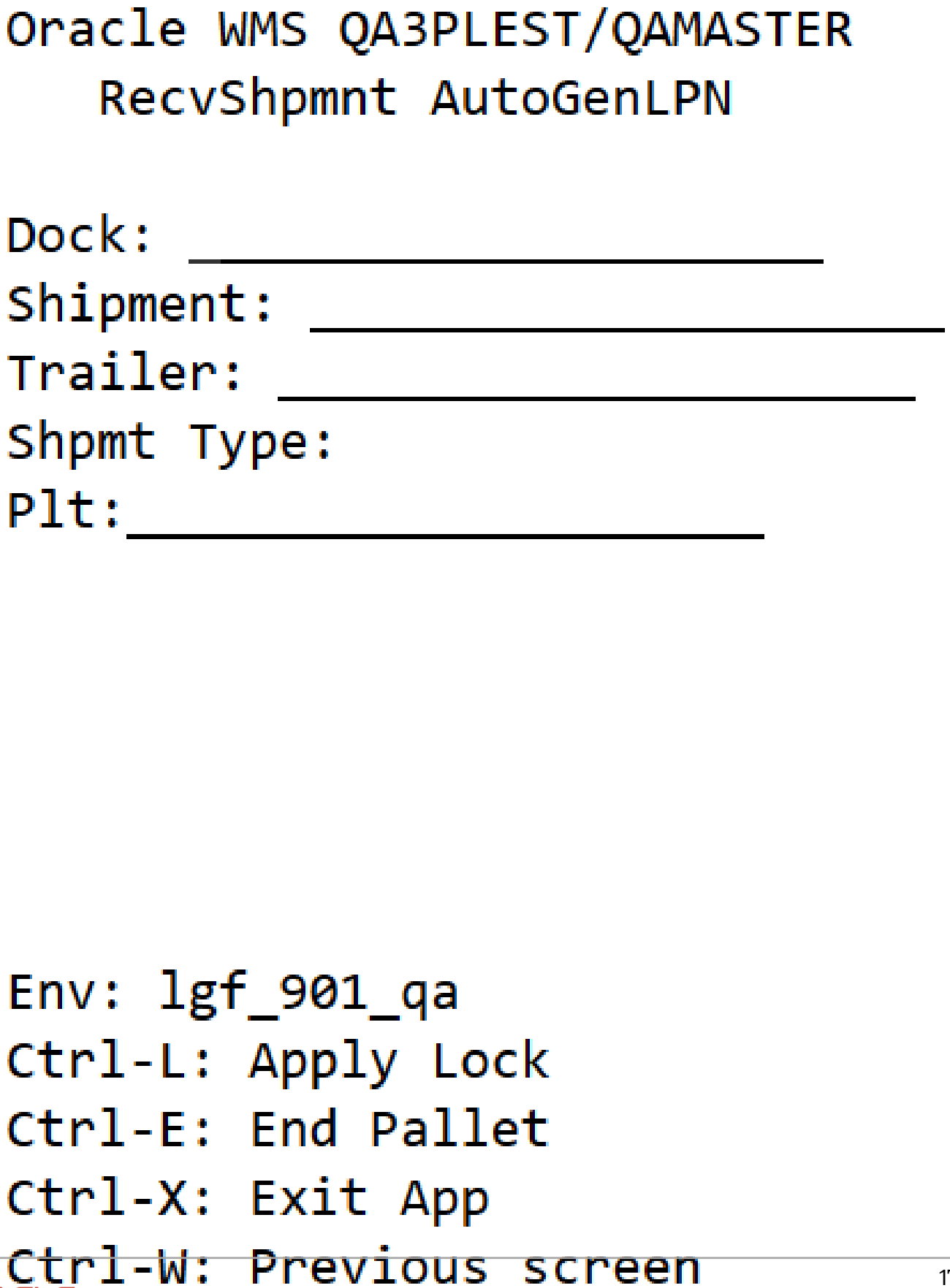

Oracle WMS QA3PLEST/QAMASTER
Receiving
Shipment: SHMSTRG00001020
LPN:
SKU:
Qty:
Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen

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

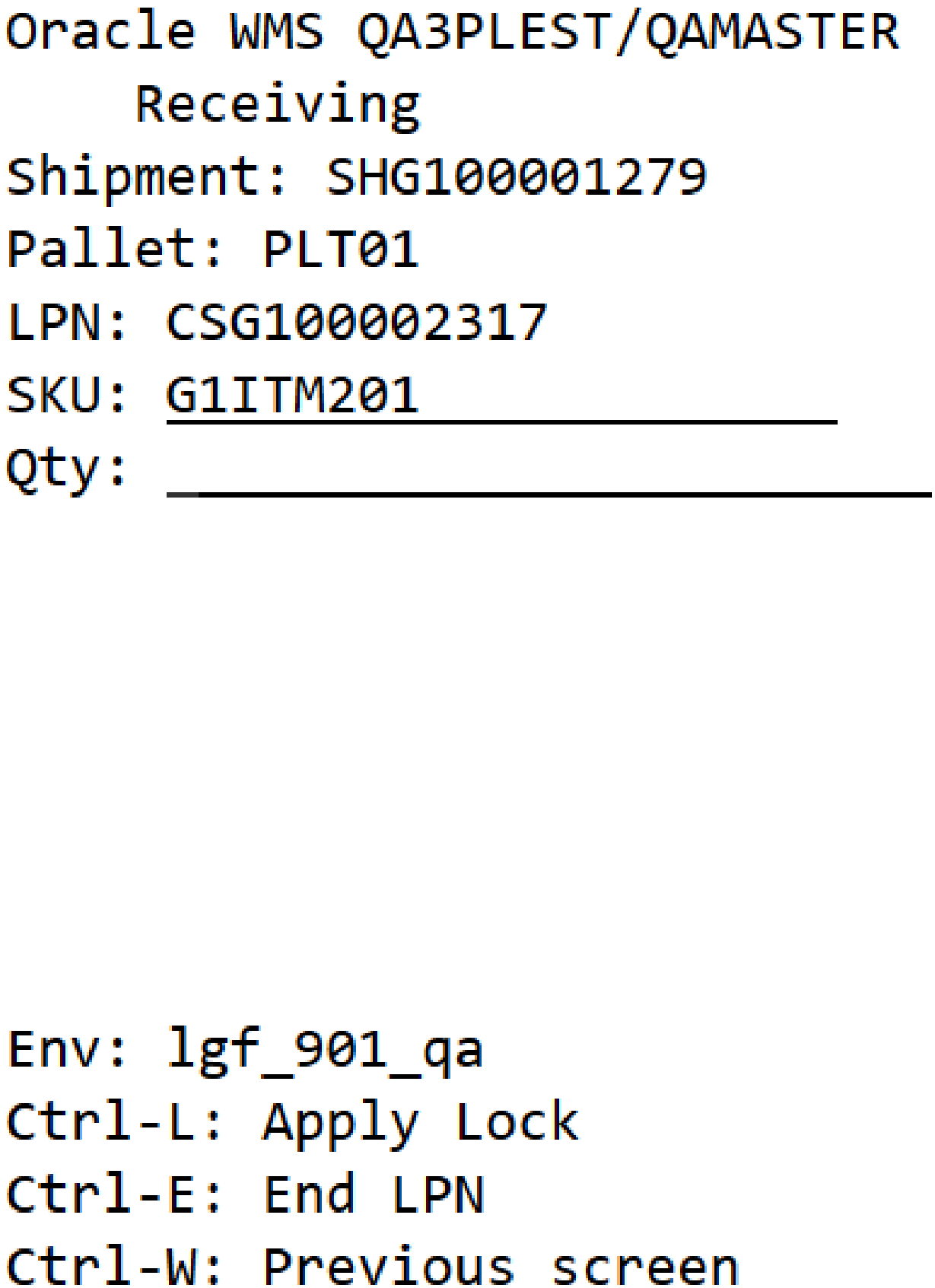
In the Shipment/ Load modules, when the screen parameter “lpn-prompt” is configured as **Auto Generate** and “pallet-handling” is configured as **Palletize up front**, the Ctrl+E key on the SKU scan screen assumes different roles as described below:

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”.
    - 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.
    - 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

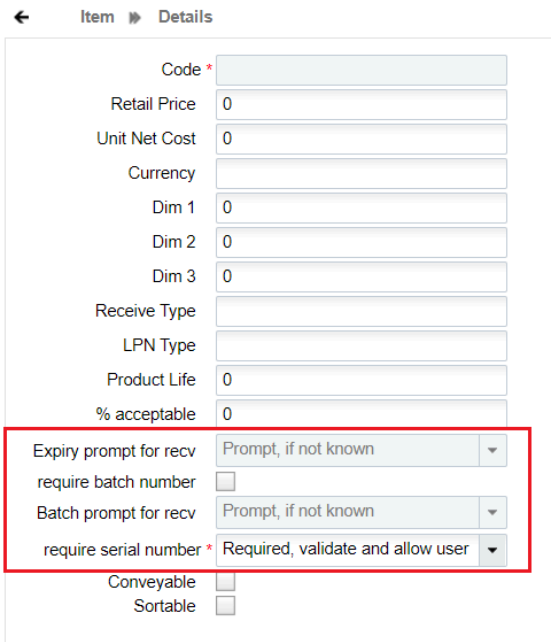
You can configure prompting of Batch number and Expiry date prompt during receiving, if present on the Shipment detail. These configurations are also available at **Item level** UI where you can define batch or expiry date prompt even if it is mentioned in the shipment detail.

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 and expiry date based on the prompt behavior.

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



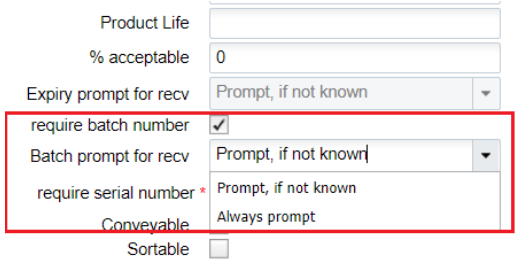
The batch/expiry prompt during receiving configuration is supported via **Receive lpn Shipment** (rf.inbound.cwrfrecvlpnshpmt) and **Receive lpn load** (rf.inbound.cwrfrecvlpnload) screen.

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 available on the **Item Detail** UI to prompt for expiry or batch tracked item. By default, these fields are disabled.

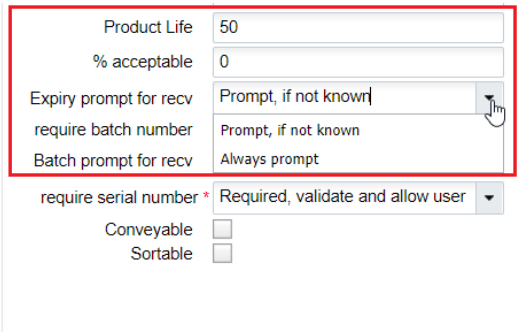
- To set prompt control for batch number,
  a. Go to **Item** UI > **Details**.
  b. Click **Edit**.
  c. Enable the **require batch number** checkbox.
  d. Select an appropriate prompt control from the **Batch prompt for recv** drop-down list.



  e. Click **Save**

- To set prompt control for expiry date,
  a. Go to **Item** UI > **Details**.
  b. Click **Edit**.
  c. Enter a non-zero value in the **Product Life** field.

     This enables the **Expiry prompt for recv** drop-down.
  d. Select an appropriate prompt control from the **Expiry prompt for recv** drop-down list.



These drop-down 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. If you specify a non-numeric value, the interface file is errored out at the staging table.
- 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.

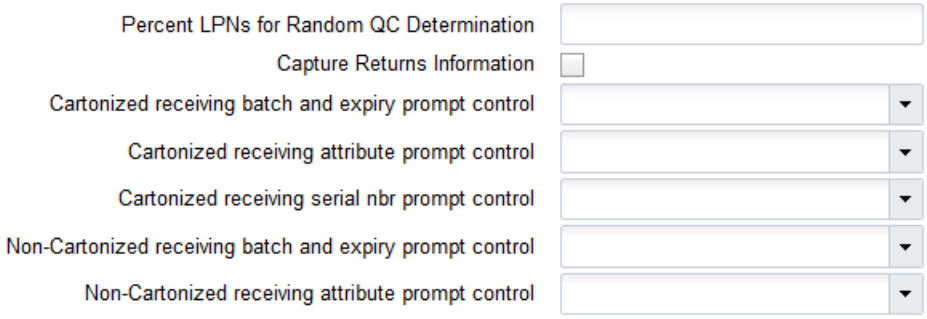
-
  - **Note:** On providing any numeric value other than 1 or 2 for the batch_handling_receiving" and "expiry_handling_receiving, the system defaults the value to 1 (Prompt, if not known) behavior.
  - **Note:** If these columns are blank for a non-batch/expiry tracked item, the system assume the default 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, you 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**".



Advantages of prompt control at Shipment level are:

- You can configure different behavior for vendor shipment and likewise configure the transfer shipments without changing any 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.

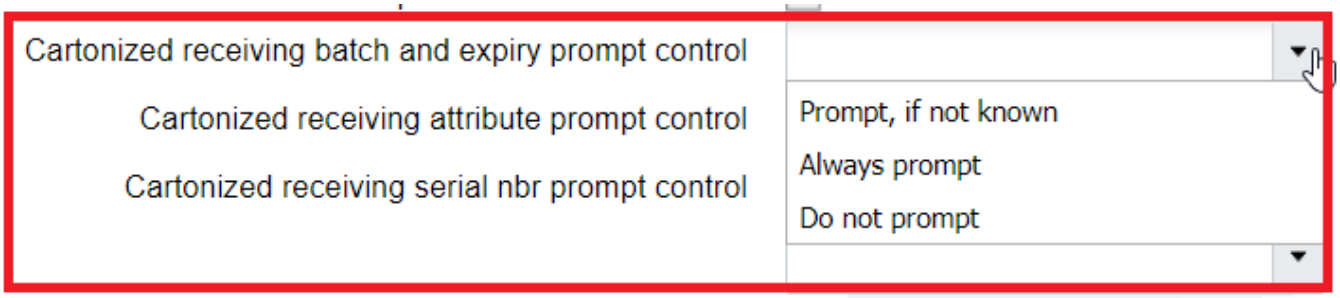
Configuration Fields for Cartonized ASN

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 click **Create** button.
2. Enter the shipment details.
3. Populate the desired prompt control.

   Three drop-down fields are available on the create shipment type UI along with their values:



   - Cartonized receiving batch and expiry prompt control: Blank/ Prompt, if not known/Always prompt/ Do not prompt.
   - Cartonized receiving Attribute prompt control: Blank/Prompt, if not known/Always prompt/ Do not prompt.

- 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/ serial number.

> **Note:** If you scan 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 you scan 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".

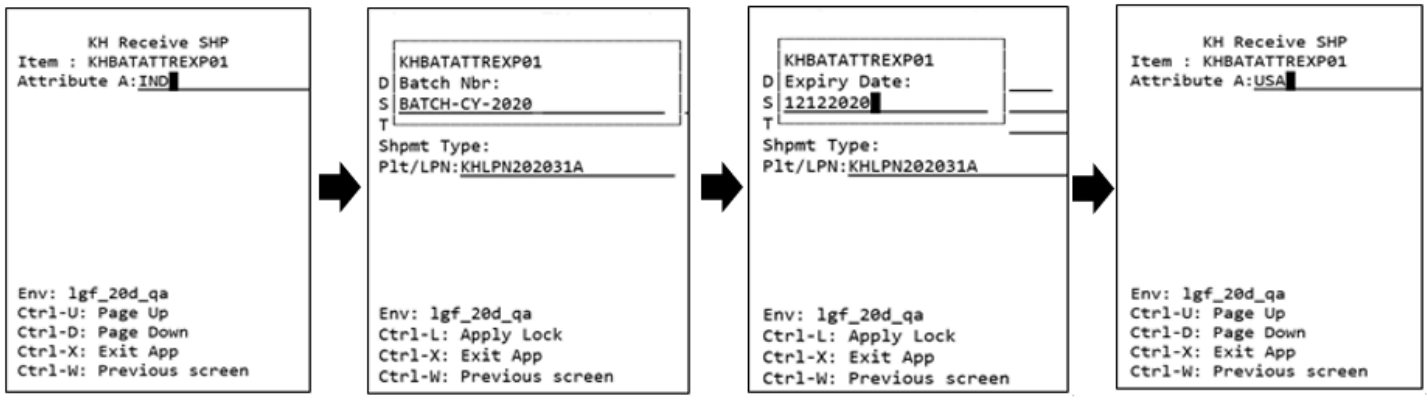
4. Click **Save**.

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 retails the LPN on the anticipated detail when you scan and receive 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

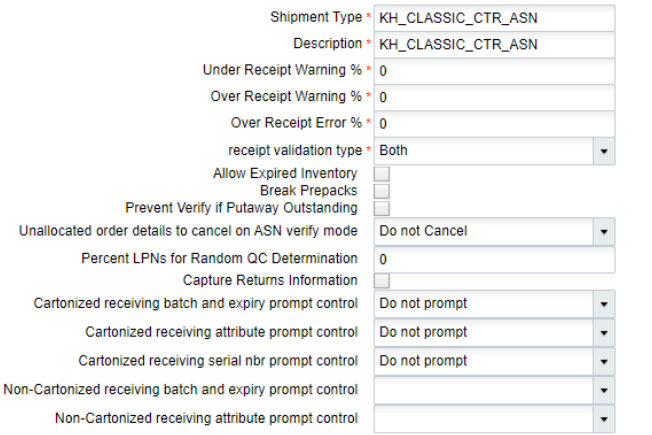
1. The system loops through the first detail by scanning the LPN, the inventory attribute (IND), then batch (BATCH-CY-2020), expiry date (12122020), serial number (if any).
2. The system moves to the second detail (without ending LPN), scans the inventory attribute (USA), then batch (BATCH-CY-2021),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

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

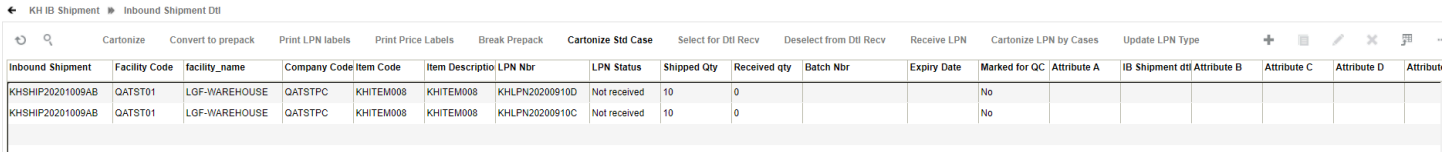
This is a classical receiving behavior and the flag is available on the Shipment type UI to restrict prompting of batch/ expiry/inventory attribute/Serial for a single SKU within an LPN, but the system fetches the batch/expiry/attributes from the ASN detail, and the serial numbers are fetched from the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

> **Note:** When configuring the shipment type to **Do Not Prompt**, you 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 Receiving and will prompt you to perform detailed receiving.

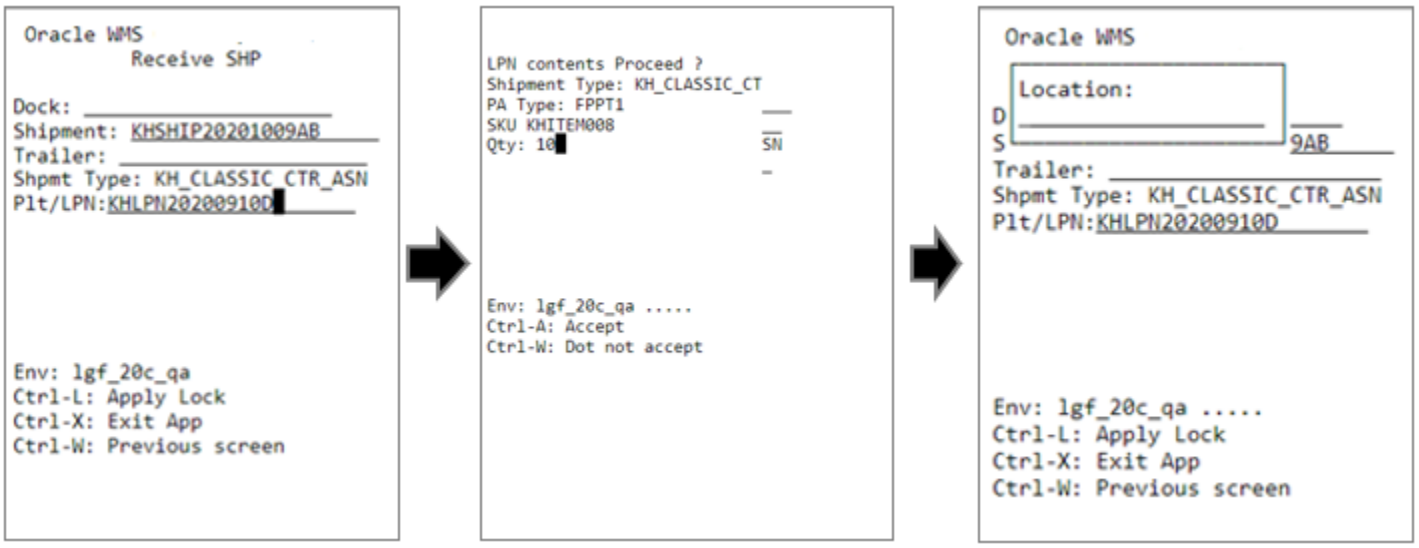
Let's say, you have the following prompt control configured:



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

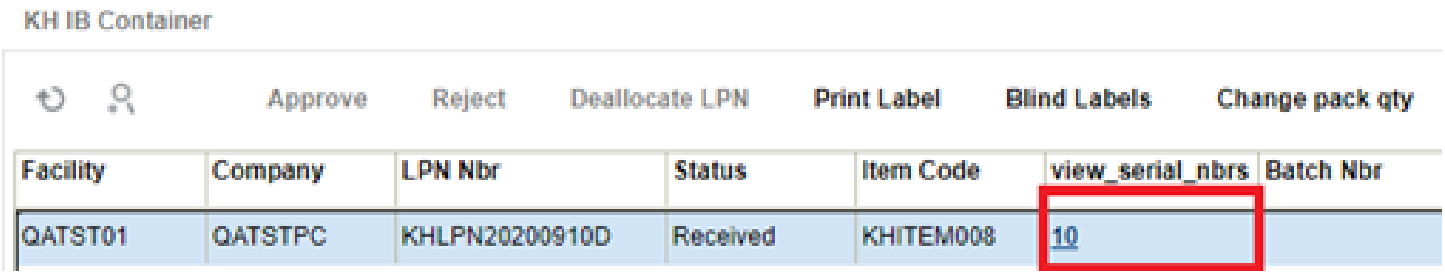


After scanning the SKU, the system doesn't prompt for serial number:

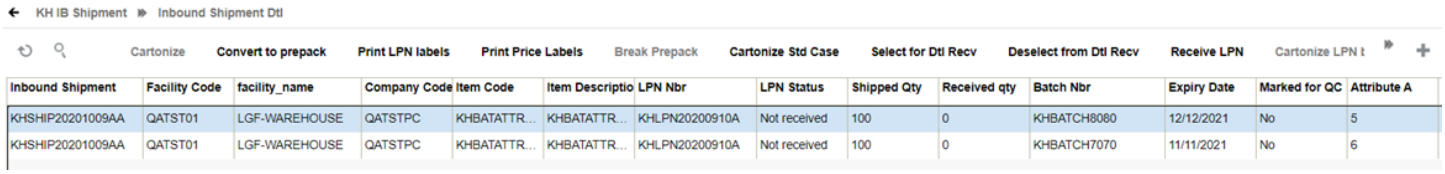




You can view the associated serial number from the IB Container UI. Clock on the numbered hyperlink from the view_serial_nbs column.

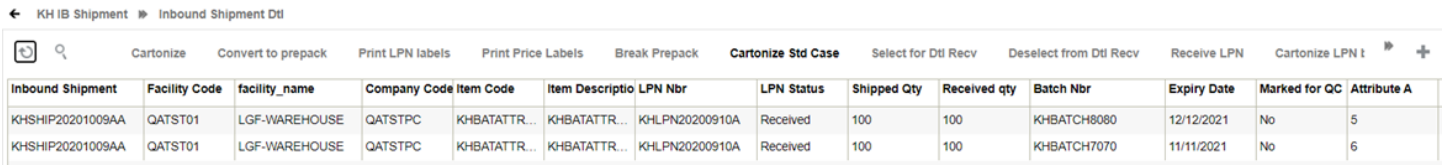


When Cartonized ASN - Screen flow for batch/expiry and inventory attribute = Do Not Prompt





After receiving, the system updates in the following manner:



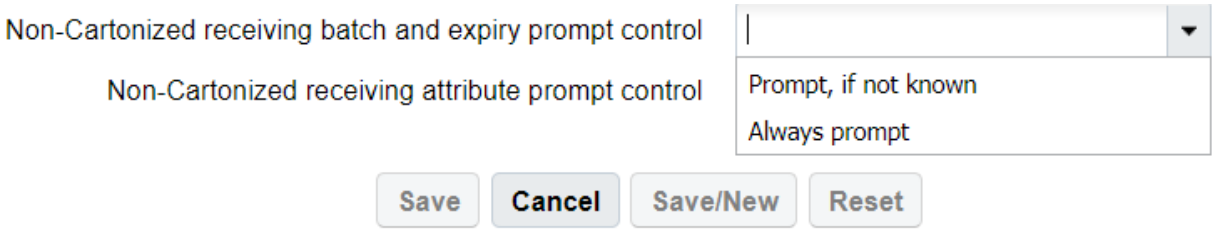
Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Descriptio	LPN Nbr	LPN Status	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A
KHSHIP20201009AA	QATST01	LGF-WAREHOUSE	QATSTPC	KHBATATTR...	KHBATATTR...	KHLPN20200910A	Received	100	100	KHBATCH8080	12/12/2021	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 click **Create** button.
2. Enter the shipment details and populate the desired prompt control:
   - Non-Cartonized receiving batch & expiry prompt control: Blank (Default behavior)/ Prompt, if not known/Always prompt.
   - 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.

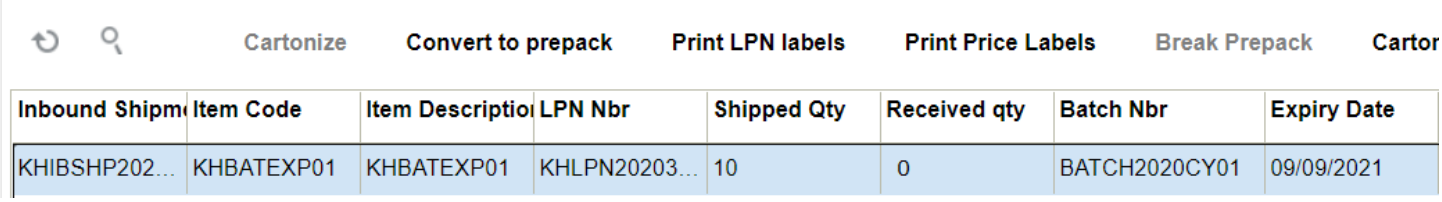
   

3. Click **Save**.

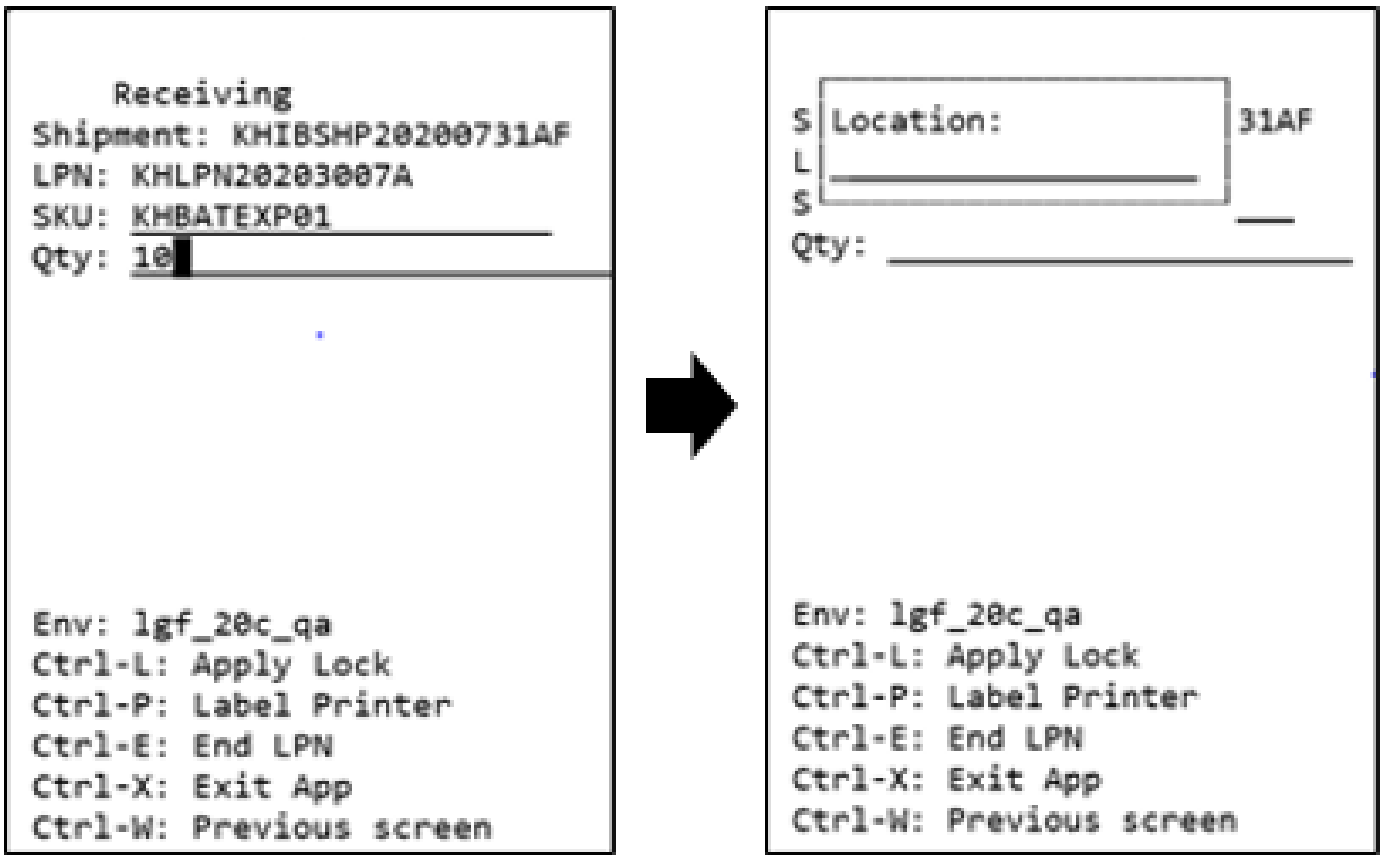
   > **Note:** When Non-Cartonized Receiving for Batch number & Expiry Number /Attribute prompt control is set to **Prompt, if known** or **Always prompt**, the system does not honor any of the item property configurations for batch/expiry dates/ inventory attribute.

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

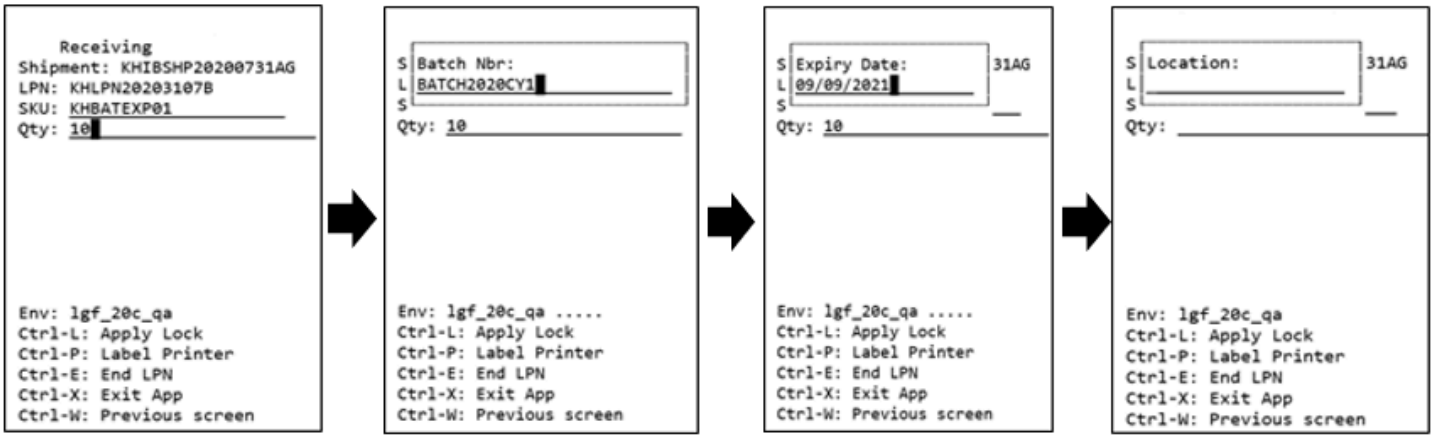
Let's say, you have the following ASN to be received:



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



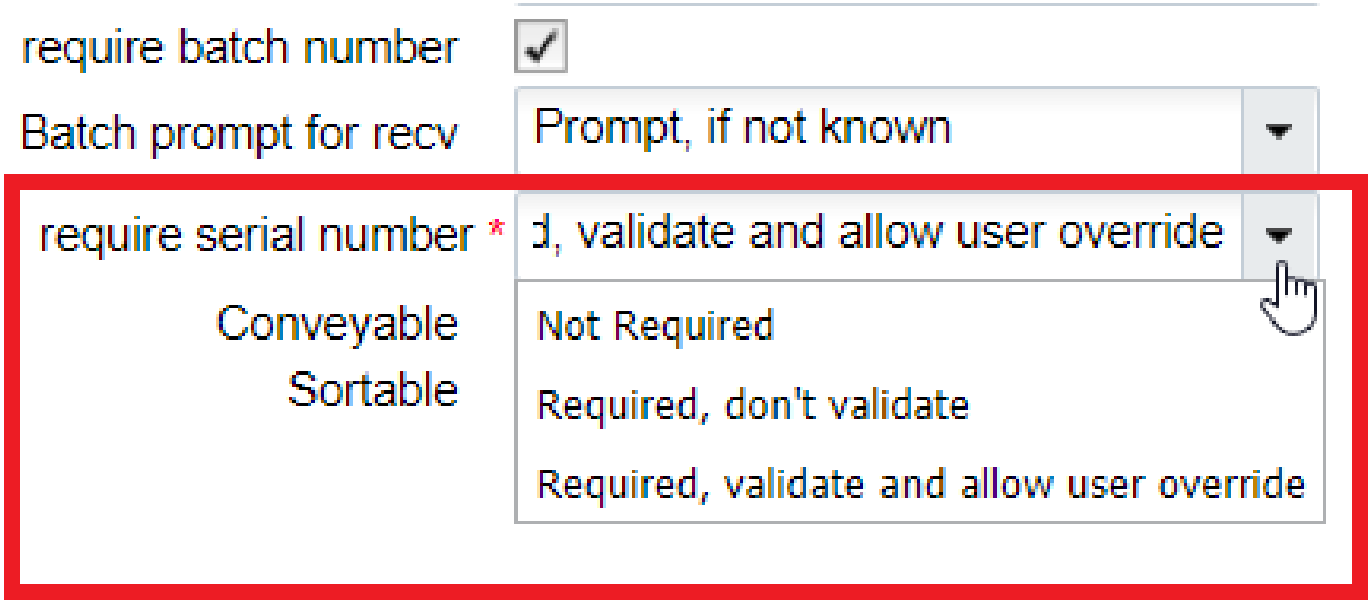
When Non-Cartonized receiving batch/expiry date prompt control= **Always prompt**



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:

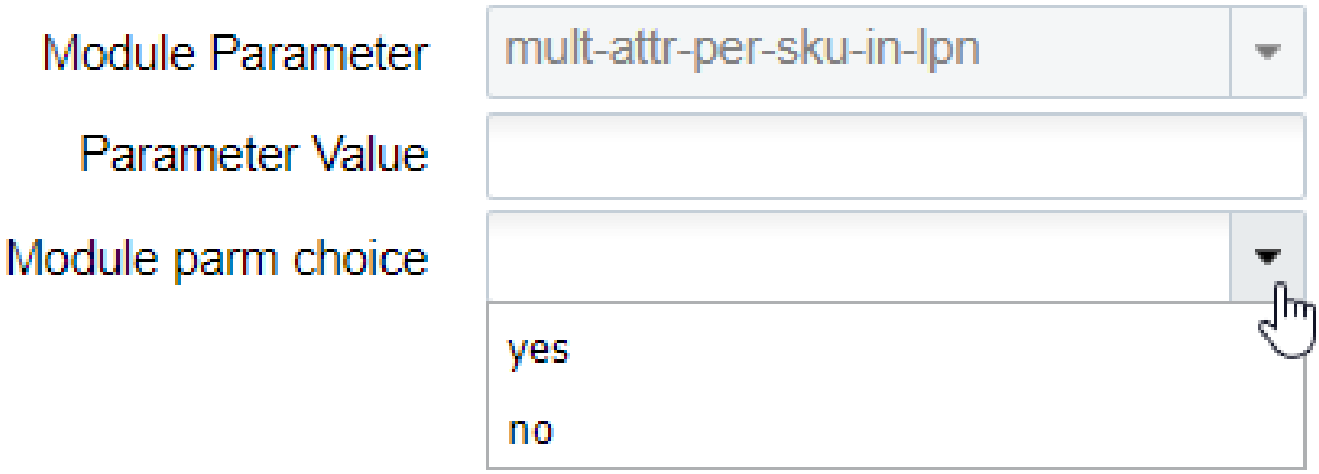


Example: Receive Multiple Inventory attribute /Batch/expiry/inventory attribute for the same SKU in a Single IBLPN for a non-cartonized shipment

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.

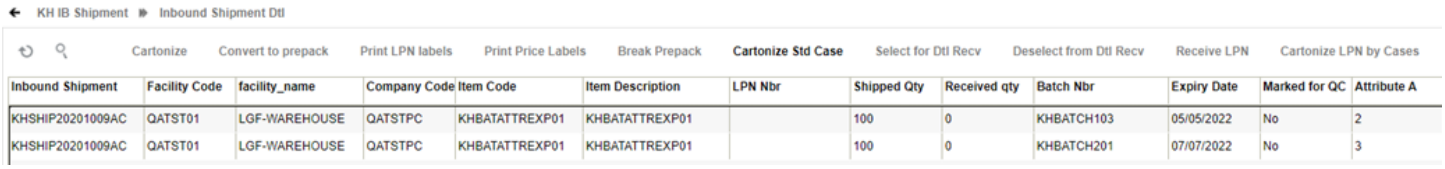
The system honors prompt configuration for batch/expiry/inventory attribute defined either at the item level or at the non-cartonized ASN type UI in conjunction with the "mult-attr-per-sku-in-lpn" field.

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



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:
    - mult-attr-per-sku-in-lpn = **Yes** : Allows multiple Batch/Expiry/expiry/inventory attribute of the same SKU into a single/multiple IBLPN.
    - 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:

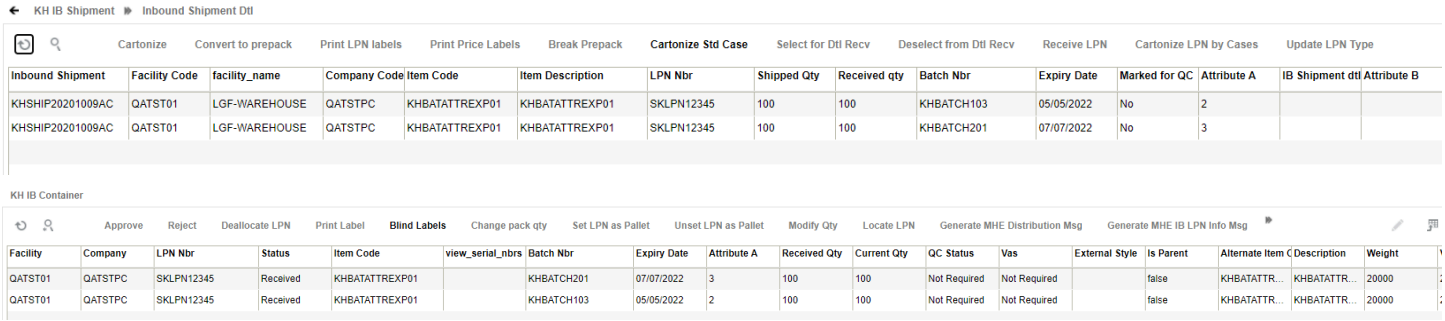


Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Description	LPN Nbr	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A
KHSHIP20201009AC	QATST01	LGF-WAREHOUSE	QATSTPC	KHBATATTREXP01	KHBATATTREXP01		100	0	KHBATCH103	05/05/2022	No	2
KHSHIP20201009AC	QATST01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



Warning and Error Conditions

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

Warning & Error Conditions

On Receiving	Warning/ Error Conditions	Warning /Error Messages
Non-Cartonized Shipments	On scanning a batch number /expiry date that does not match with the batch number /expiry date present on the shipment. **Note:** These messages do not appear if the ASN detail is not populated with batch/expiry date and you scan batch/expiry for the detail.	For batch number: Batch number does not match the SKU-shipment combination" For expiry date: “Expiry Date does not match the SKU-shipment combination"

On Receiving	Warning/ Error Conditions	Warning /Error Messages
		Note: By default, these messages are enabled for the respective facilities. You can disable the batch number/expiry date warning message or can configure as an error message from the Edit Facility message configuration UI.
Cartonized Shipment	When Cartonized Receiving for Batch number & Expiry Number /Inventory Attribute/ Serial number prompt control = **Do not Prompt** 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.	"The system cannot determine the %attributes% of the SKU. Please perform Detail receiving" **Note:** The messages will be specific to the attribute that is missing. The system captures the first attribute that is missing in the sequence. 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
Cartonized Shipment	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"). 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.	Warning Message: ASN type has some attributes set to do not prompt and some to prompt, receiving might fail".
Cartonized Shipment	On scanning an LPN having multiple details with multiple batches/expiry/inventory attribute and serial number combination for a single SKU, and system prompts you to perform detail receiving of the particular detail in cartonized ASN.	Error message: "Multiple attr-serial number combination found on LPN for the same SKU. Please perform dtl receiving".
Cartonized Shipment	On scanning a batch number /expiry date that does not match with the batch number /expiry date present on the LPN. **Note:** These messages do not appear if the ASN detail is not populated with batch/expiry date and you scan batch/expiry for the detail.	"Scanned Attribute- SKU combination is not present in the LPN". **Note:** By default, these messages are enabled for the respective facilities. You can disable the batch number/expiry date warning message or can configure as an error message from the Edit Facility message configuration UI.

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 Mobile transaction 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".

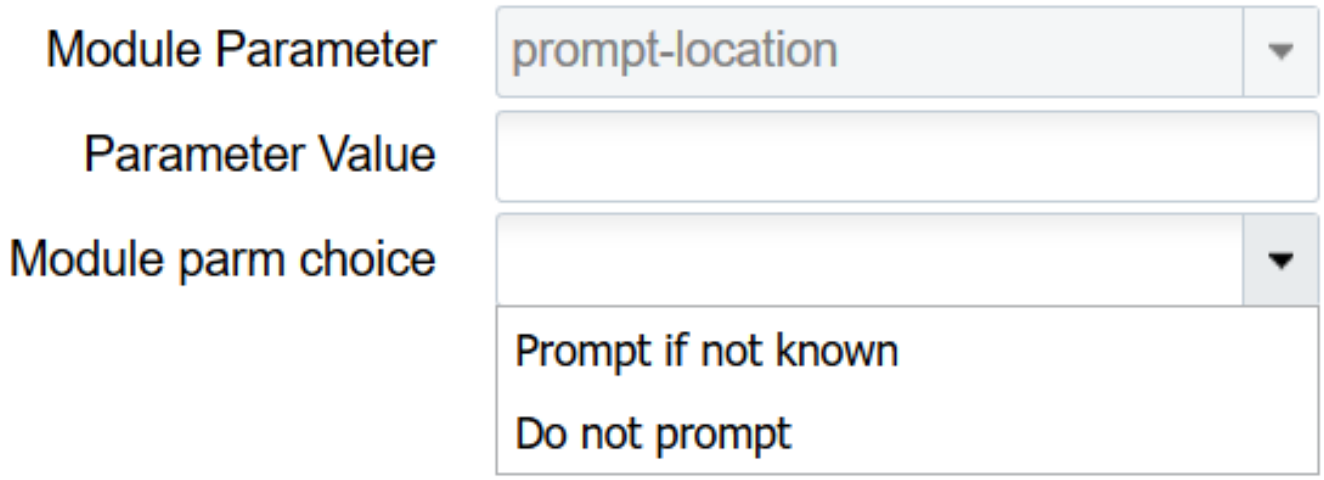
  If “rcv_sku_not_onshipment” = **Yes**, then the error message is displayed for SKUs that are on the shipment.

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 receiving module and click on Details (). This displays all the parameters for the selected module.
3. Select the “prompt-location” parameter. Click Edit ().
4. From the “Module parm choice” drop-down, select the desired option.



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

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

Prompt-location Screen Flows

1. In the Receive by Shipment or 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 Receive by Shipment or 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.”

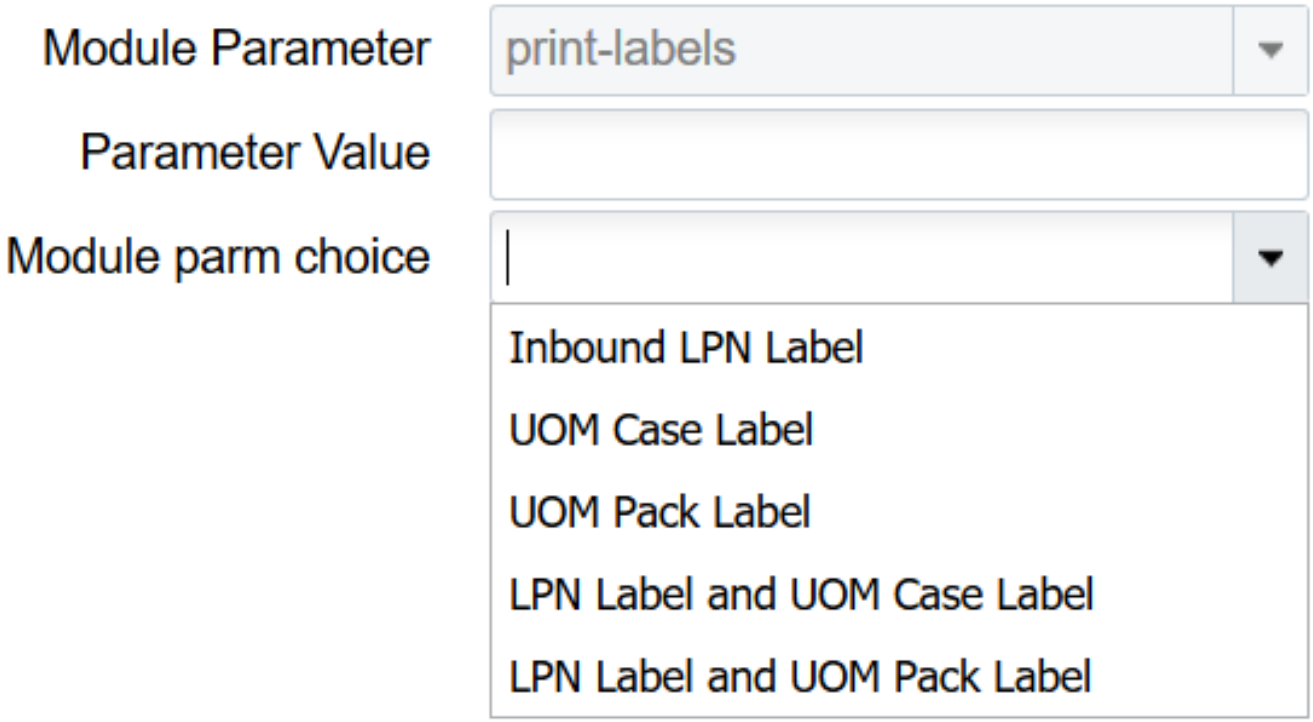
In the above two scenarios, you only have the option to enter a Reserve or Dock location.

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 receiving module and click **Details**. This will display all the parameters for the selected module.
3. Select the parameter “print-labels”. Click **Edit**.
4. In the “Module parm choice” drop-down menu, select the desired option.



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

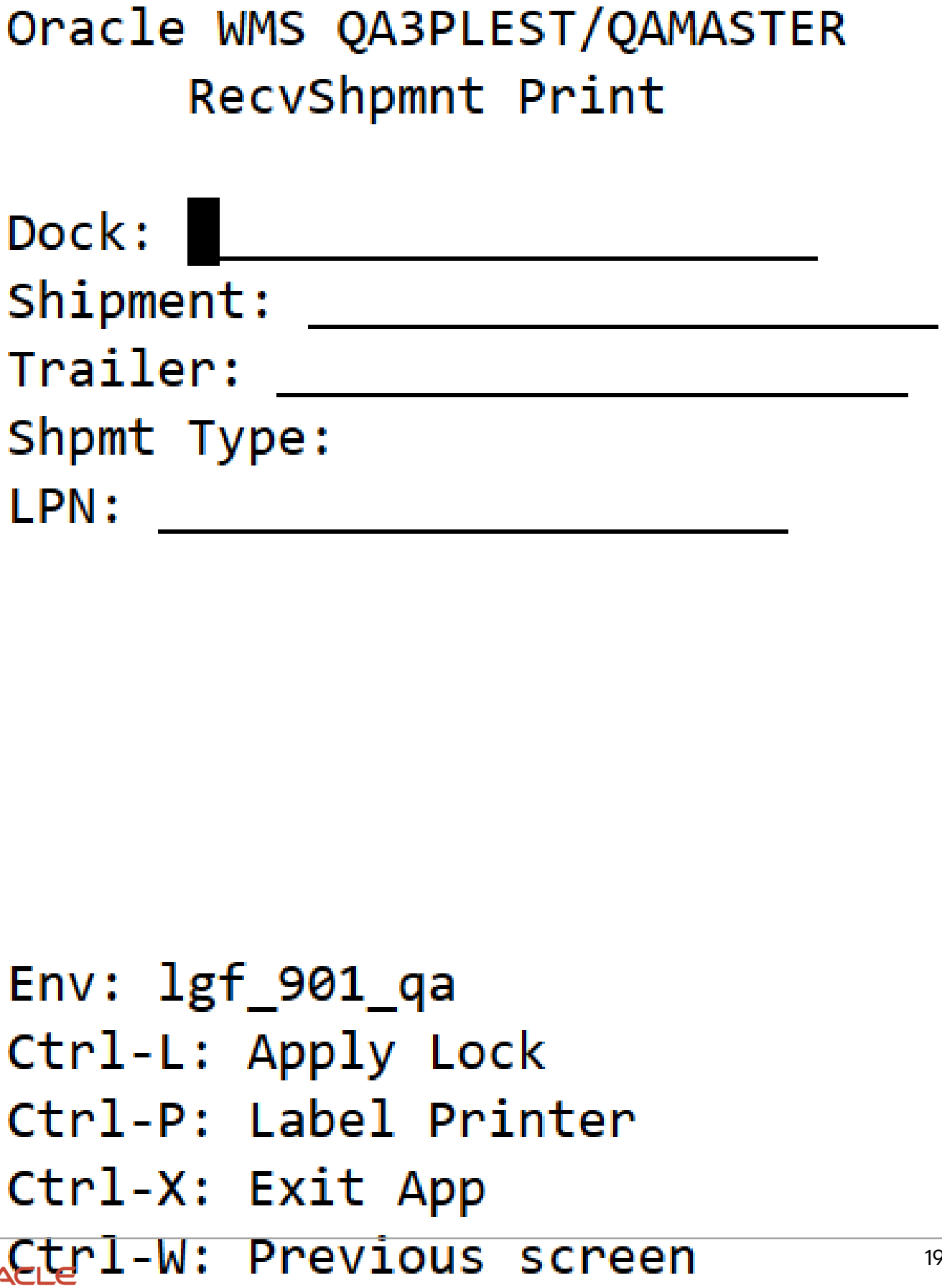
- **Inbound LPN Label**: Inbound LPN label will be printed based on the label template configuration.

- **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.

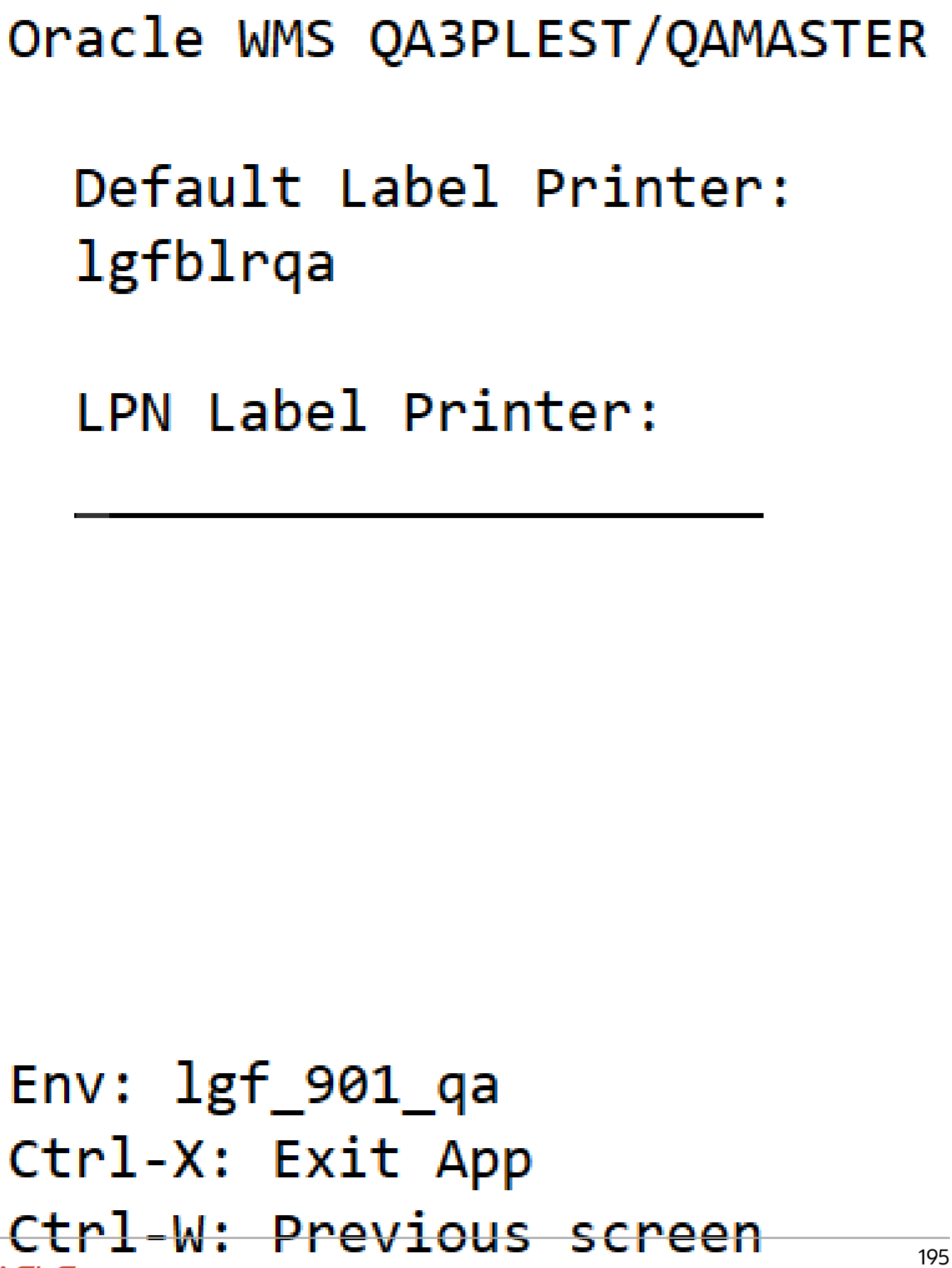
Ctrl Key for Printing

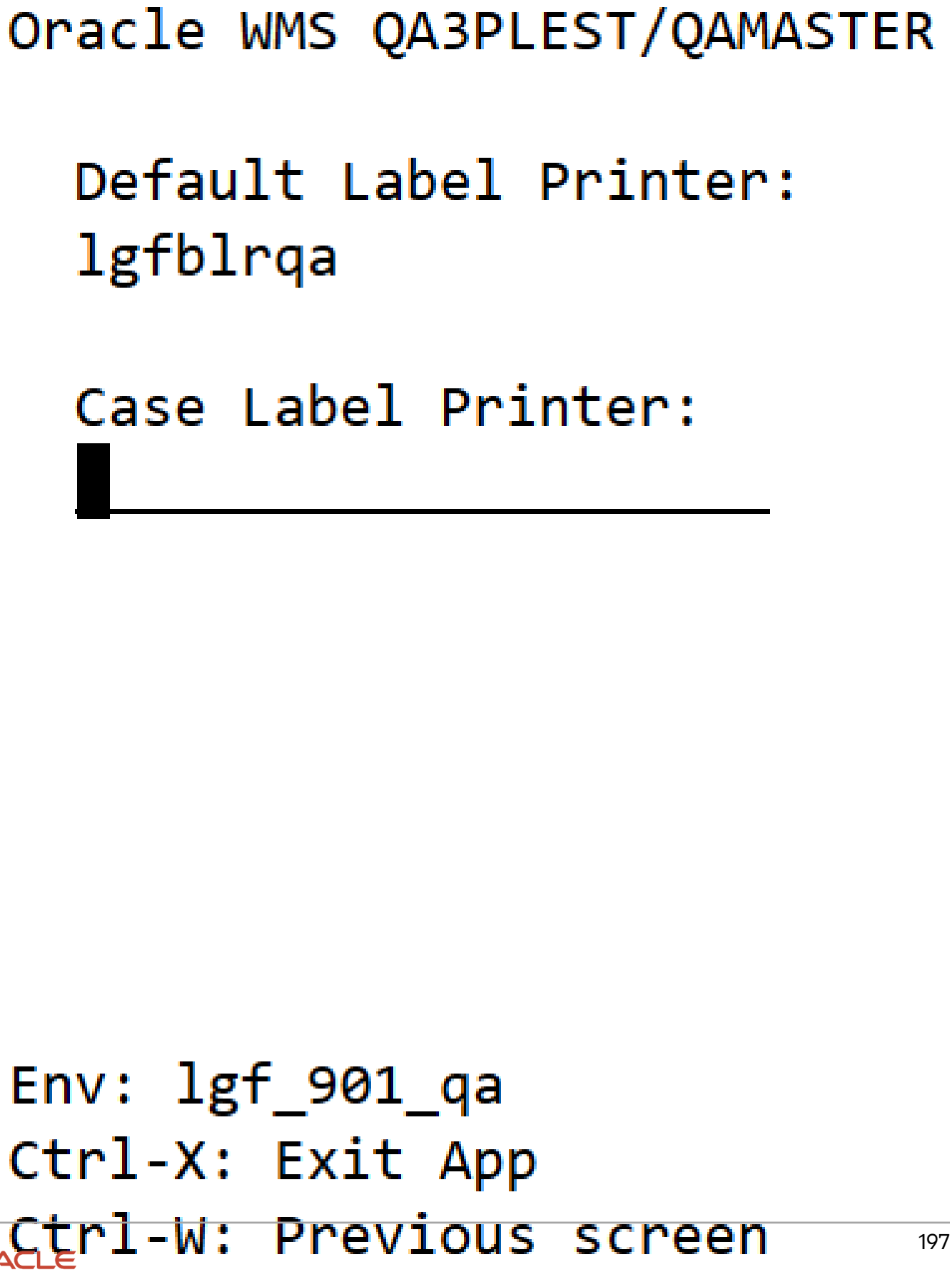
1. When the screen parameter “print-labels” is configured with one of the supported values in the receiving modules ***Receive by Load*** or ***Receive by Shipment*** , then the first screen (Shipment/Load screen) and the

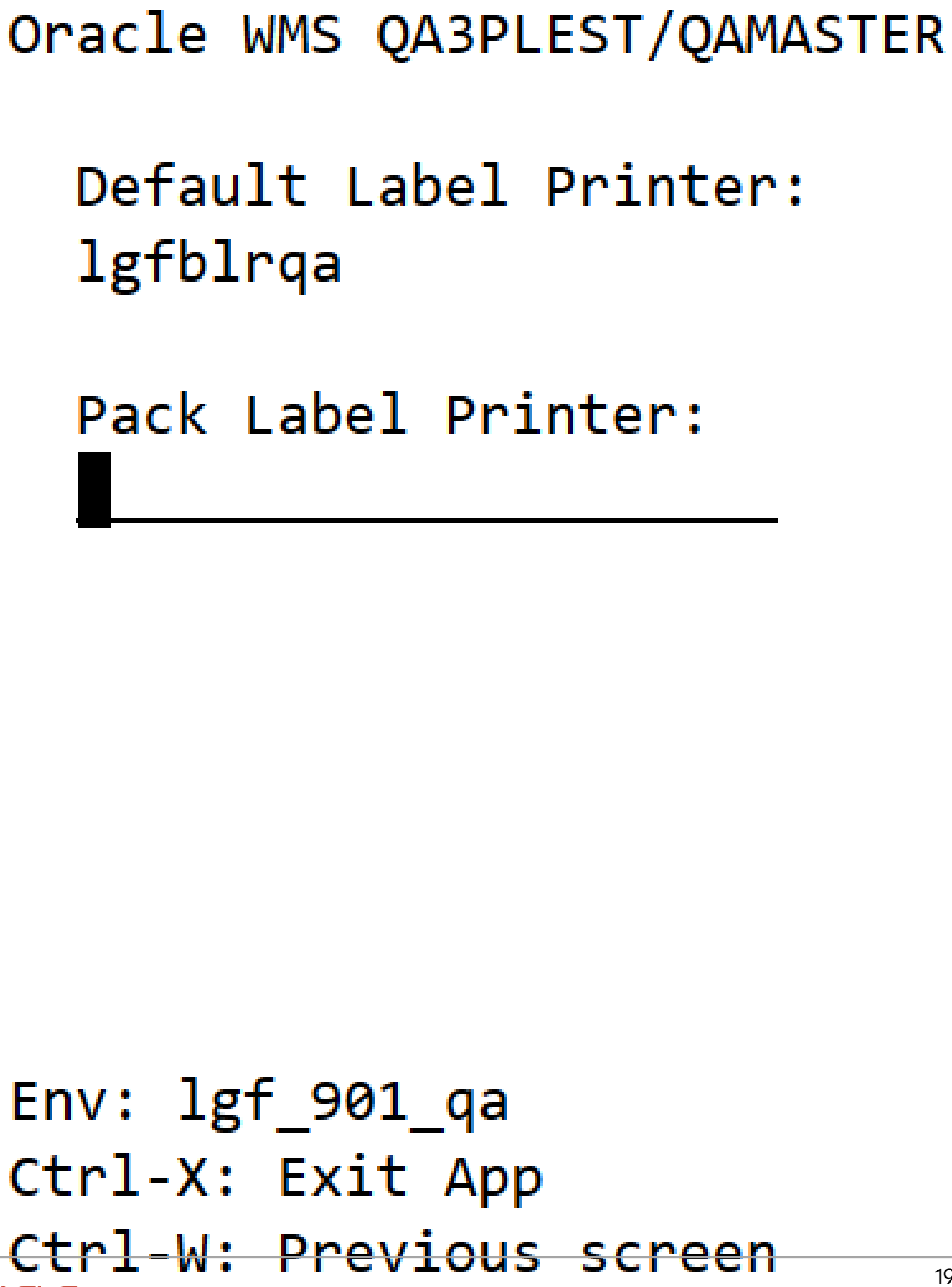
second screen (SKU scan screen) displays the **Ctrl-P** key to initiate printing. The **Ctrl- P** key will only display if “print-labels” is configured.


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

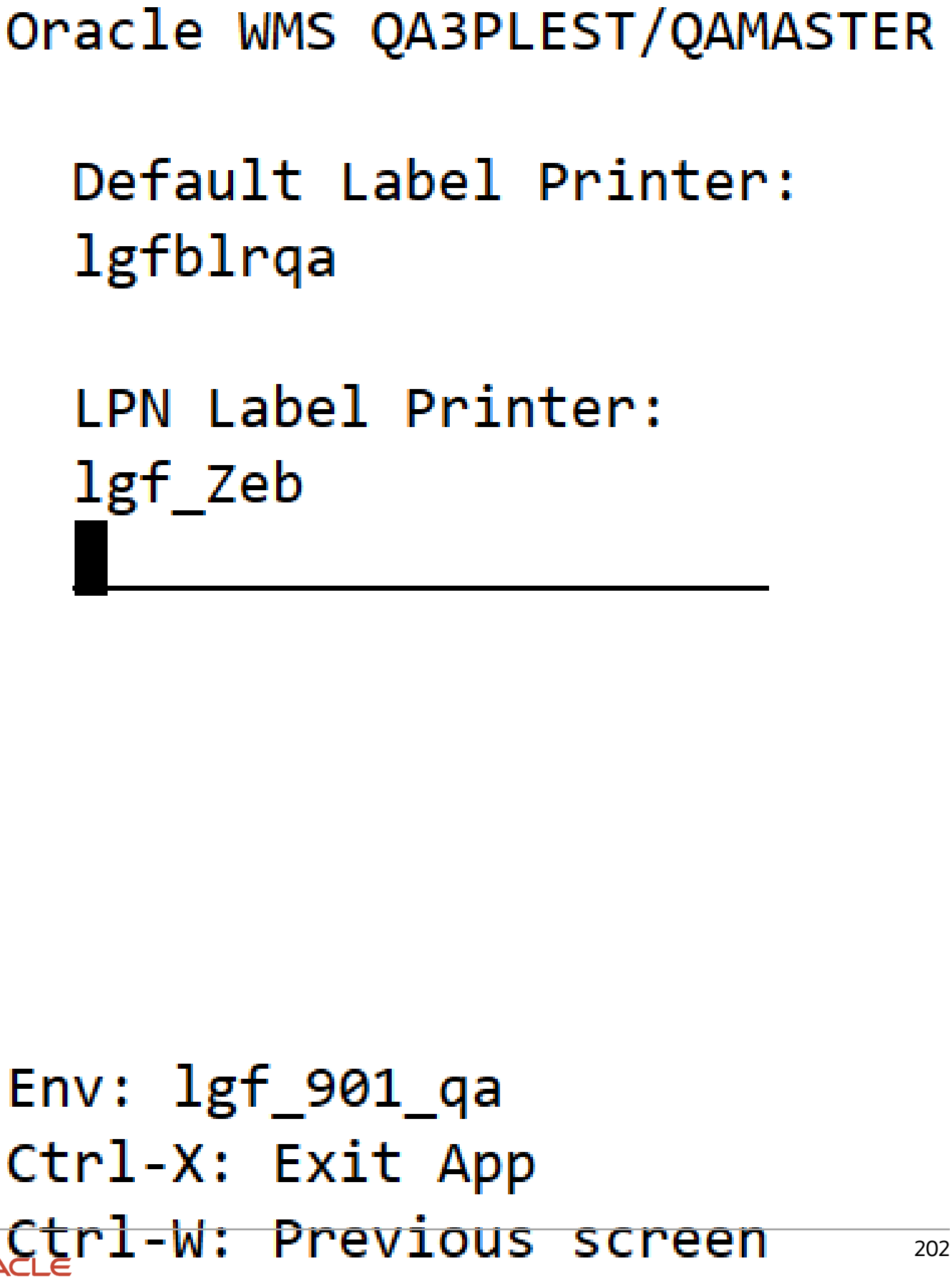
2. When you press the **Ctrl-P** key, you are presented with a screen that displays the default printer (if configured) for the user. Depending on the configuration of the “print-labels” screen parameter, there will be prompts for LPN, Case, Pack, LPN and Case, AND LPN and Pack as illustrated by the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

Dynamic Prefix for Blind Labels

You can add a dynamic prefix when generating blind labels for various UI/Mobile screens. You can use this feature for your benefit by generating labels of the same type, but with unique dynamic prefixes tailored to specific customer or regulatory requirements.

IB CONTAINER UI

You can define dynamic prefix in the Blind Labels dialog window for all labels (IBLPN/OBLPN/Pallet labels) type via Ib Container UI. This is a non-mandatory field and supports up to 50 character. The Prefix passed in the IB Containers takes precedence over SeqCounterView Prefix for BLIND_LPN_NBR / OBLPN / BLIND_PALLET_NBR and updates the respective blind labels.

Steps to enable:

Follow these steps to define the dynamic prefix in the following UIs:

1. Go to the **IB Container** (IbContainerView) UI.
2. Click the Blind Labels action button. Blind Labels dialog window is opened.
3. Enter all the required fields and the prefix of your choice.

> **Note:** Choose the Label Type from the drop-down button for which you want to generate the blind label.

4. Click Submit.

Print Pallet Labels and Pack/Case Quantity Display Updates

Print Pallet Labels

You can now print pallet labels from a new screen parameter in various Mobile transcations.

When the parameter is configured to Yes, the system processes to print pallet labels. This functionality is triggered by specific hot keys, allowing users to efficiently manage printing tasks directly from the system interface.

Steps to enable:

- **Set the Parameter to Yes:**
- Ensure that the parameter is set to "Yes" to enable the pallet label printing feature.
- **Trigger Label Printing:**
- Press the `Ctrl-E` hot key to initiate the 'End Pallet' process.
- Upon pressing `Ctrl-E`, the system will automatically start printing the pallet label.
- A confirmation message, "label print triggered for pallet%", will be displayed.
- **Change the Default Printer (If Needed):**
- If you need to change the default printer, use the `Ctrl-P` hot key.
- Note that the `Ctrl-P` hot key is only enabled if the parameter is set to "Yes."
- **Add a Printer:**
- If no default printer is available, you will need to add a printer to proceed with label printing.

Dynamic Prefix in Pallet UI

You can define dynamic prefix in the Print Blind Label dialog window from the Pallet UI (PalletView). The Prefix passed in the Print Blind Label takes precedence over SeqCounterView Prefix for BLIND_PALLET_NBR.

Steps to enable:

1. Go to the **Pallet UI** (PalletView).
2. Click Print Blind Label action button. The Print Blind Label dialogue window is opened.
3. Enter all the required fields and prefix of your choice.
4. Click Submit.

Print Pallet Labels in Palletize

You can print pallet labels from the Print Label screen parameter in the Palletize module (`rf.inbound.cwrfpalletizeplt`).

Parameter Name	Parameter Type	Parameter Options	Default Behavior
Print Label	Selection	Blank | Yes | No	Blank (acts as No)

Pack and Case Quantity Display Updates

The Pack and Case Quantity display is updated in several Mobile transactions. Refer to the Unit of Measure Reference Document for details on the screen changes.

Affected Modules

Module Name	Module Code
Receiving	`rf.inbound.cwrfrecvlpnload` | `rf.inbound.cwrfrecvlpnshpmt`
Receive Single SKU	`rf.inbound.cwrfrecvsinglesku`
Split IBLPN	`rf.inbound.cwrfsplitcntr`
Distribute LPN	`rf.outbound.cwrfdistributelpn`
Pick IBLPN	`rf.outbound.cwrfpickiblpn`
Pick IBLPN Replenishment	`rf.inbound.cwrfpickiblpnreplen`
Pack NC Active	`rf.outbound.cwrfpackncactiveorder`
Pick Cart	`rf.outbound.cwrfpickcart`
Audit OBLPN	`rf.outbound.cwrfauditlpnplt`
QC	`rf.inbound.cwrfqccomplete`
Modify/Cancel OBLPN	`rf.outbound.cwrfmodcancelobcntr`
Distribute Replenishment	`rf.inbound.cwrfdistlpnreplen`

Note: If you use screen scrapers, please make the necessary changes accordingly.

Print Blind Labels

You can define dynamic prefix by prompting the newly introduced screen parameter “prompt_prefix” via Print blind labels (rf.inbound.cwrfprintblindlabels).

The parameter prompt_prefix contains two choices:

- **Prompt**: The system prompts for the Prefix to generate the blind labels and takes precedence over SeqCounterView Prefix for BLIND_LPN_NBR / OBLPN / BLIND_PALLET_NBR and updates the respective blind labels.
- **Do Not prompt**: The system continuous to honour the configured SeqCounterView Prefix for BLIND_LPN_NBR / OBLPN / BLIND_PALLET_NBR and generates the Blind labels.

> **Note:** Even on configuring the dynamic prefix, the system will continue to honor all other SeqCounterView configurations of the corresponding Counter Code. Example: 'Sequence Length' / 'Append Facility Code to Prefix' / 'Current Nbr '/ etc.

Also, after passing the dynamic prefix and successfully generating the blind labels, the system updates ONLY the 'Current Nbr' of the corresponding SeqCounterView. Users must ensure that the system continues to honor the company parm USE_SAME_IBOB_LPN_CNTRS when using blind LPN. If the dynamic prefix isn't passed, the

system continuous to honor the configured Sequence Counter View 'Prefix' for IB Container, OB Container, and BLIND_PALLET_NBR and generates the Blind labels.

Steps to enable:

1. Go to the **Print Blind Labels** module.
2. Screens > Screen Parameter > prompt_prefix parameter.
3. Set the parm choice to Prompt.
4. Click Save.

Print Labels from Mobile LPN Inquiry and Mobile Pallet Inquiry

Warehouse operators often need to reprint an LPN or pallet label while they check details on a handheld device. Instead of leaving the inquiry flow and opening a separate print transaction, they can print the label directly from the Mobile inquiry screen. You can use **Ctrl-P** in **Mobile LPN Inquiry** or **Mobile Pallet Inquiry** to print the label for the scanned LPN or pallet. WMS prompts for a printer, uses the default printer when available, and records the print activity in Label Printing History. You can use this feature to:

- Reduces extra navigation on handheld devices.
- Supports default printer selection.
- Scan a different printer when needed.
- Records label printing history for review.

Before you begin to print, ensure you:

1. Configure the required LPN or pallet label template.
2. Configure Label Rules Engine if your warehouse uses label rules.
3. Configure a default printer for users who print labels from Mobile.
4. The required print permissions is provided to the users, including access to print history or reprint actions if needed.
5. Use Facility Message Configuration if you want to hide the print confirmation message.

To Print an LPN Label from Mobile LPN Inquiry, do the following:

1. Open **Mobile LPN Inquiry**.
2. Scan the LPN number.
3. Review the LPN details.
4. Press **Ctrl-P**.
5. Scan or confirm the printer.
6. Press **Tab** to print the LPN label.
7. Confirm that WMS displays the message: `label print triggered for LPN%`

To Print a Pallet Label from Mobile Pallet Inquiry, do the following:

1. Open **Mobile Pallet Inquiry**.
2. Scan the pallet.
3. Press **Ctrl-P**.
4. Scan or confirm the printer.
5. Press **Tab** to print the pallet label.

6. Confirm that WMS displays the message: `label print triggered for LPN%`

> **Note:** When you press **Ctrl-P**, WMS opens the printer prompt. If a default printer exists, WMS shows it automatically. You can use the default printer or scan a different printer before printing. If no default printer exists, WMS displays a warning that label printing may fail. For pallet labels, WMS displays `No Pallet Found` if you press **Ctrl-P** before scanning a pallet. WMS prints the label using Label Rules Engine when it's configured; otherwise, it uses the label template configuration. WMS also records the print activity in **Label Printing History**.

Manage the Number of Labels to be Printed through UI

You can input the number of copies and print IB LPN Labels, Blind Labels, OB LPN Labels, Shipping Labels and OB LPN Contents Labels in Warehouse Management.

To print multiple copies of the supported label types, do the following:

- For IB LPN Labels and Blind Labels
  a. Go to **IBLPN Inquiry** UI.
  b. Select the record for which you want to print labels.
  c. Click the **Print Label** button (for IB LPN Labels) / **Blind Label** button (for Blind Labels).

     Here, you will be prompted with a dialog box for inputting more details.
  d. Select the desired printer via the drop-down for **Printer Name**.
  e. Enter the desired number of copies on the **Number of Copies** field. It is a required field.

     > **Note:** For label copies, you can print a maximum of 5 copies in a single instance. Likewise for blind labels, the maximum number of labels that can be printed in a single instance is 5000.

  f. The dialog box for Blind Labels contains the following additional fields for you to configure:
     - Prefix : Input the prefix to the label name. This filters the labels to be printed by the entered prefix.
     - Label Type : Select the type of blind label (i.e, IB LPN, OB LPN, Pallet) to be printed via the drop-down.
     - Destination Company : Select the desired Destination Company via the drop-down.
     - Destination Facility : Select the desired Destination Facility via the drop-down.
  g. Click **Submit**.
- For OB LPN Labels, Shipping Labels and OB LPN Contents

1. Go to **OBLPN Inquiry** UI.
2. Select the record for which you want to print labels.
3. Click the **Print Shipping Label** button (for Shipping Labels) / **Print OBLPN Label** (for OB LPN Labels) / **Print OBLPN Contents** (for OB LPN Labels).
4. Select the desired printer via the drop-down for **Printer Name**.
5. Enter the desired number of copies on the **Number of Copies** field. It is a required field.
6. Click **Submit**.

Print Blind LPN Labels through Mobile Transaction

To print Blind Inbound LPNs, Outbound LPNs and Pallets using the **Print Blind Labels** module **(rf.inbound.cwrfprintblindlabels)**.

1. Invoke the **Print Blind Labels** transaction.
2. Select the Label Type by entering 1 for Inbound LPN (IBLPN), 2 for Outbound LPN (OBLPN) and 3 for Pallet (Plt).
3. Enter the desired number of blind labels to be printed in the **Nbr of Labels** field.

   > **Note:** The maximum number of blind labels you can print is up to 5000. If the entered value is greater than 5000, the system displays the error message: “Value for max-number-of-labels-to-print should be 1 to 5000”.

4. Enter the printer's name in the **Printer** field. By default, the printer configured in the User menu is populated.
5. Use the hotkeys Ctrl+P to clear the printer field and enter/scan a new printer.
6. Press Tab or Enter to trigger the printing of the blind labels.

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*.

Rules-based Label Template Selection

You can configure multiple label designer templates for a label type, based on specific user configured rules.

To configure rule-based label template selection, do the following:

1. Go to the Label Rules Engine UI.
2. Click the “+” button to create a new label rule.
3. Enter a name for your label rule.
4. Select the Label Type from the drop-down menu.

   Note: On selecting Inbound LPN as Label Type, the Selection Type drop-down is enabled. You can choose between “From IB Shipment” and “From IB LPN”. This determines the source of the data for the configured label designer template.

5. Enter the screen name. Search for the module instance of the specific module using the advanced search.

   Note: If the screen name is left blank, this rule will be applicable to all screens (UI and Mobile transactions) from where printing can be invoked for this label type.

6. Select your newly created label rule and click the Details icon.
7. Click the “+” button to create the details for the rule.
8. Configure a sequence number and choose your desired label designer template (from the drop-down list).

   Note: Enable/set the “Match Unconditionally Flag”, if you wish to ignore the selection rules for that sequence. By default, this flag is not set/unchecked and so the system will consider the configured selection rules.

9. Click Save.
10. To configure the selection criteria, select the specific sequence/label designer template and click the “Selection Rules” button.

11. You will be navigated to the Selection Rules sub-screen.

    Note: You will see a folder icon (); this can be one of the two “Complex Operations”, i.e, AND/OR. For this complex operation, you can create multiple nodes having “Basic Operations” (selected from the drop-down) and the criteria, by selecting from the list of different column names related to the label types and its related entities.

    - To create a new basic operation, select the complex operation and click on “Insert Basic Operation”.
    - Select the SQL operator, column name and column value.

    Similarly, you can also add nested complex operations by clicking on “Insert Complex Operation”. This creates a complex operation under the selected complex operation.
12. Click Save.

    Similarly, you can configure multiple sequences/templates with different selection rules, for the same rule name/label type/screen name.

Trigger Points for Supported Label Types via Mobile, API and UI printing transactions

Label Rules Engine is currently supported for specific printing (Mobile, API, and UI) transactions and their respective trigger points for printing labels (as mentioned in the table below).

Trigger Points for label printing via UI and Mobile Transactions

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
Shipping Label	• **Print LPN Labels** – Outbound Loads UI (*ObLoadView*) • **Print Shipping Label** – Outbound Container UI (*ObContainerView*) • **Print Shipping Label** – Item Inventory by LPN UI (*LpnItemInventoryView*) • **Print Labels/Documents** – Wave Inquiry UI (*AllocationRunHdrView*) – when the Shipping Label type is configured in “Order by rule” on the Column Ordering Rule UI/By default, unconfigured. • Printing triggered through Wave for allocation types: Full LPN and Cubed and PLT_MOV_AUTOPK task type (when label type isn't configured). • **Print Label** popup while releasing a task – Task UI (*TaskView*) – with the screen parameter “Print Label” = YES and Shipping Label type	• **Print Ship Label** (*rf.outbound.cwrfprintshiplbl*) – when the screen parameter “column-ordering-descr” is configured with a column ordering rule having the Shipping Label as one of the label types. • **Work Order Kit Processing** (*rf.outbound.cwrfprocessworko* – when the screen parameter “print-shipping-label” is set as YES and the resultant LPN is an OB LPN. • **Print LPN Label** (*rf.outbound.cwrfprintlpnlbl*) – the type is OB LPN and the screen parameter “lpn-or-pallet” is set to LPN. This transaction also prints shipping labels for each OB LPN on the pallet – when the screen parameter “lpn-or-pallet” is set as Pallet. • **Print Invoice and Label** (*rf.outbound.cwrfprintinvoicelb*	NA

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
	configured on the selected Column Ordering Rule.	• **Distribute {oblpn}** (*rf.outbound.cwrfdistributelpn*) - when the screen parameter **print-obshipping-labels** is set as YES. • **Post Packing OBLPN updates and handling** (*rf.outbound.cwrfpostpackinglp* - when the screen parameter **print-column-order-descr** is configured for Shipping Label. • **Repack OBLPN** (*rf.outbound.cwrfrepackoblpn*) - when the screen parameter **print-column-order-descr** is configured for Shipping Label. • **Combine OBLPN** (*rf.outbound.cwrfcombineoblpr* - if the screen parameter **post-pack-task-type-desc** is called and the screen parameter **print-column-order-descr** is configured for Shipping Label. • **Pack OBLPN from IBLPNs** (*rf.outbound.cwrfpackoblpnfro* - when the screen parameter **print-column-order-descr** is configured for Shipping Label. • **Update OB LPN** (*rf.outbound.cwrfupdateoblpn*) - when the selection in the screen parameter **print-options** is set as Shipping Labels. • **Pack NC Active {order}** (*rf.outbound.cwrfpackncactive* o For Cubed flow: (Cubed allocations need to be tasked). The screen parameters “nc” and “cubed mode” = cubed. **prompt-printer** = Always prompt and print. o For Non-Cubed flow: The Facility Parameter "NONCUBED_PRINT_SHPLBL_ = YES. **prompt-printer** = Always prompt and print.	
Outbound LPN Label	• **Print OBLPN Label** – OB Container UI (*ObContainerView*) • **Print OBLPN Label** – Item Inventory by LPN UI (*LpnItemInventoryView*) • **Print Labels/Documents** – Wave Inquiry UI	• **Print Ship Label** (*rf.outbound.cwrfprintshiplbl*) – when the screen parameter **column-ordering-descr** is configured with a column ordering rule, having the OBLPN Label as one of the label types.	NA

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
	(*AllocationRunHdrView*) – when the selected "Order by rule" has OBLPN label configured as one of the label types (i.e., the rule defined in the Column Ordering Rule UI). • **Print Label** popup while releasing a task – Task UI (TaskView) – with the screen parameter "Print Label" = YES and OB LPN Label type configured on the selected Column Ordering Rule.	• **Post Packing OBLPN updates and handling** (*rf.outbound.cwrfpostpackinglp* - when the screen parameter **print-column-order-descr** is configured for OB LPN Label. • **Repack OBLPN** (*rf.outbound.cwrfrepackoblpn*) - when the screen parameter **print-column-order-descr** is configured for OB LPN Label. • **Direct Allocation** (*rf.outbound.cwrfdirectallocati* – when the selection in the screen parameter **print-label** is OB LPN Labels or both. • **Combine OBLPN** (*rf.outbound.cwrfcombineoblpr* - if the screen parameter **post-pack-task-type-desc** is called and the screen parameter **print-column-order-descr** is configured for OB LPN Label. • **Pack OBLPN from IBLPNs** (*rf.outbound.cwrfpackoblpnfro* - when the screen parameter **print-column-order-descr** is configured for OB LPN Label. • **Update OB LPN** (*rf.outbound.cwrfupdateoblpn*) - when the selection in the screen parameter **print-options** is set as OB LPN Labels or both. • **Pack {oblpn}** (*rf.outbound.cwrfpacklpn*) – when the column ordering rule is configured for OBLPN and the screen parameters **print-column-order-descr** is configured for OB LPN Label and **print-label** is set as OBLPN or both.	
Outbound LPN Contents Label	• **Print OBLPN Contents Label** – OB Container UI (*ObContainerView*) • **Print OBLPN Contents Label** – Item Inventory by LPN UI (*LpnItemInventoryView*) • **Print Labels/Documents** – Wave Inquiry UI (*AllocationRunHdrView*) – when the selected "Order by rule" has OBLPN Contents label configured as one of	• **Print Ship Label** (*rf.outbound.cwrfprintshiplbl*) – when the screen parameter **column-ordering-descr** is configured with a column ordering rule, having the OB LPN Contents Label as one of the label types. • **Post Packing OBLPN updates and handling** (*rf.outbound.cwrfpostpackinglp* - when the screen parameter **print-column-order-descr** is	NA

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
	the label types (i.e., the rule defined in the Column Ordering Rule UI). • **Print Label** popup while releasing a task – Task UI (*TaskView*) – with the screen parameter "Print Label" = YES and OB LPN Contents Label type is configured on the selected Column Ordering Rule.	configured for OB LPN Contents Label. • **Repack OBLPN** (*rf.outbound.cwrfrepackoblpn*) - when the screen parameter **print-column-order-descr** is configured for OB LPN Contents Label. • **Direct Allocation** (*rf.outbound.cwrfdirectallocati*– when the selection in the screen parameter **print-label** is OB LPN Contents Labels or both. • **Combine OBLPN** (*rf.outbound.cwrfcombineoblpr*- if the screen parameter **post-pack-task-type-desc** is called and the screen parameter **print-column-order-descr** is configured with OB LPN Contents Label.**Pack OBLPN from IBLPNs** (*rf.outbound.cwrfpackoblpnfro*- when the screen parameter **print-column-order-descr** is configured for OB LPN Contents Label.	

Outbound Pallet Label	**Print Pallet Label** – Pallets UI (*PalletView*), for Type 'O' (i.e., OB Pallet)	• **Palletize** (*rf.inbound.cwrfpalletizeplt*) – when the parameter "print-pallet-label" = YES for OB Pallet.
		• **Print LPN-Pallet Label** (*rf.outbound.cwrfprintlpnlbl*) – when the screen parameters "type" = OBLPN, "lpn-or-pallet" = "Pallet only"/ "LPN or Pallet".
		• **Pack {oblpn}** (*rf.outbound.cwrfpacklpn*) – when the screen parameter **print-label** is set as OB Pallet.
			Print Pallet Label API
			• **URL for GET:**
			`GET.../wms/lgfapi/v10/print/label/pallet/`
			• **URL for POST:**
			`POST .../wms/lgfapi/v10/print/label/pallet/`

Order Label	• **Print Labels** – Order header UI (*OrderHdrView*) • **Print Label** – OB Orders UI (*ObOrdersView*) • **Printing configured through Wave template** – For consolidation/internal picking orders, when the printing is triggered during a Wave, the system defaults to Order label	NA	NA

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
	type (when no other label type is configured), for both regular picking and replenishment.		
Work Order Label	**Print Labels** – Work Order Inquiry/ Header UI (*WorkOrderInquiryView*)	NA	NA
Item Label	**Print Label** – Item UI (*ItemView*)	**Print Item label** (*rf.inbound.cwrfprintitemlbl*)	NA
Inbound Shipment Label	**Print ASN Labels** – IB Shipment Header UI (*IBShipmentView*)	**Print ASN Label** (*rf.inbound.cwrfprintasnlbl*)	NA

Inbound LPN Label	• **From IB LPN**
	○ **Print Label** – IB Container UI (*IbContainerView*)
	○ **Print Label** – Item Inventory by LPN UI (*LpnItemInventoryView*)
	• **From IB Shipment**
	○ **Print LPN Labels** – IB Shipment Header UI (*IBShipmentView*)
	○ **Print LPN Labels** – IB Shipment Detail UI
		• **Print LPN Label** (*rf.outbound.cwrfprintlpnlbl*) – when the screen parameters "type" = IBLPN, "lpn-or-pallet" = LPN only/LPN or Pallet (blank or none, if it corresponds to IBLPN by default).
		• **Work Order Kit Processing** (*rf.outbound.cwrfprocessworkol* – when **print-lpn-label** is set as YES, the screen parameter "print-shipping-label" is NO and the resulting LPN = IB LPN.
		• **IBLpn Pick for Consol Replen** (*rf.inbound.cwrfpickiblpnreplen* - when the screen parameter **print-labels** is set as Inbound LPN Label.
		• **Sort and Receive** (*rf.inbound.cwrfsortandrecv*) - when the screen parameter **print-labels** is set as Inbound LPN Label.
		• **Create {lpn}** (*rf.inbound.cwrfcreatelpn*) - when the screen parameter **print-labels** is set as Inbound LPN Label.
		• **Pick {iblpn}** (*rf.outbound.cwrfpickiblpn*) - when the screen parameter **print-labels** is set as Inbound LPN Label.
		• **Split Container** (*rf.inbound.cwrfsplitcntr*) - when the screen parameter **print-labels** is set as Inbound LPN Label.
			Print LPN Label API
			• **URL for GET:**
			`GET.../wms/lgfapi/v10/print/label/ib_container/`
			• **URL for POST:**
			`POST.../wms/lgfapi/v10/print/label/ib_container/`

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API

Inbound Pallet Label	**Print Pallet Label** – Pallets UI (*PalletView*), for Type 'I' (i.e., IB Pallet)	• **Print LPN-Pallet Label** (*rf.outbound.cwrfprintlpnlbl*) – when the parameters "type" = IBLPN, "lpn-or-pallet" = Pallet only/LPN or Pallet.
		• **Palletize** (*rf.inbound.cwrfpalletizeplt*) – when the parameter "print-pallet-label" = YES for IB Pallet.
			Print Pallet Label API
			• **URL for GET:**
			`GET.../wms/lgfapi/v10/print/label/pallet/`
			• **URL for POST:**
			`POST .../wms/lgfapi/v10/print/label/pallet/`

Inbound Shipment Serial Number Label	• **Print Serial Number Label** – IB Shipment Serial Number UI (*IBShipmentSerialNumberView*) • **Print Serial Numbers** – IB Shipment Header UI (*IBShipmentView*)	NA	NA
Price Labels	• **Print Test Label** - Price Label View UI (*PriceLabelView*) • **Print Price Labels** - IB Shipment Header and IB Shipment Detail UI (*IBShipmentView*) **Note:** The Price label can not be configured specifically for the IB Shipment Detail screen and configuring the screen/module *IBShipmentView* will print only from the IB Shipment header. So, to print price labels from both the IB Shipment header and IB Shipment Detail screens, you need to configure it as blank for the screen name/module for the Price Label type in **Label Rules Engine** UI.	**Print Retail Price label** (*rf.outbound.cwrfretailpricelabel*)	NA
UOM Case Labels	**Print UOM Label** - IB Container UI (*IbContainerView*). This invokes a pop-up, where you can select the UOM Case Label.	• **Receiving Shipment** (*rf.inbound.cwrfrecvlpnshpmt*) - when the screen parameter **print-labels** is set to "UOM Case Label" or "LPN Label and UOM Case Label". • **Receiving Load** (*rf.inbound.cwrfrecvlpnload*) - when the screen parameter	NA

LABEL TYPE	ACTION BUTTON - UI SCREEN (MODULE)	Mobile TRANSACTION	API
		print-labels is set to "UOM Case Label" or "LPN Label and UOM Case Label".	
UOM Pack Labels	**Print UOM Label** - IB Container UI (*IbContainerView*). This invokes a pop-up, where you can select the UOM Pack Label.	• **Receiving Shipment** (*rf.inbound.cwrfrecvlpnshpmt*) - when the screen parameter **print-labels** is set to "UOM Pack Label" or "LPN Label and UOM Pack Label". • **Receiving Load** (*rf.inbound.cwrfrecvlpnload*) - when the screen parameter **print-labels** is set to "UOM Pack Label" or "LPN Label and UOM Pack Label".	NA

Configure DPI for Printers

You can assign custom DPI values via the **Dots Per Inch** field in the **Printer** UI. This eliminates the need to change the DPI of the physical printers. As a result, you have control over the print quality of the label or document templates dynamically at print time.

For example, you have a printer (with a DPI value of 250) and the label template you wish to print has a configured DPI value of 150, you can configure a custom DPI value (let's say, 200) via the Printer UI. Here, the system will honor the DPI set at Printer UI and will print the label with 200 DPI.

To input DPI values for the printer, follow these steps:

1. Go to the **Printer** UI.
2. Select the desired printer.
3. Click the pencil icon to edit.
4. In the **Dots Per Inch**Dots Per Inch field, enter the required whole number value (for example, 150, 200, 300, 600 and so on).

   Note:
   - By default, the DPI value is 0 and the system considers the template's DPI for printing. This is applicable for new printers as well as existing printers.
   - If there is a difference between the DPI values set in Printer UI and the template's DPI itself, then, the precedence is given to the DPI value set in the Printer UI. However, if the DPI values match, resizing is not considered since there is no discrepancy.

5. Click **Save**.

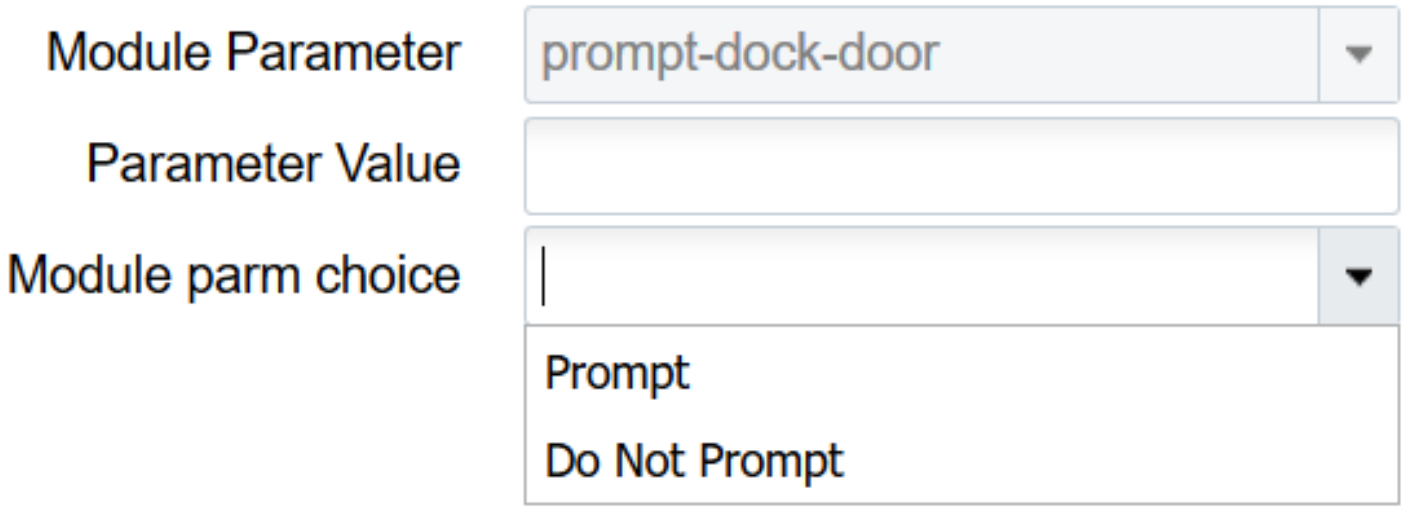
Prompt Dock Door

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 receiving module and click **Details**. This will display all the parameters for the selected module.
3. Select the parameter “prompt-dock-door”. Click **Edit**.

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



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.

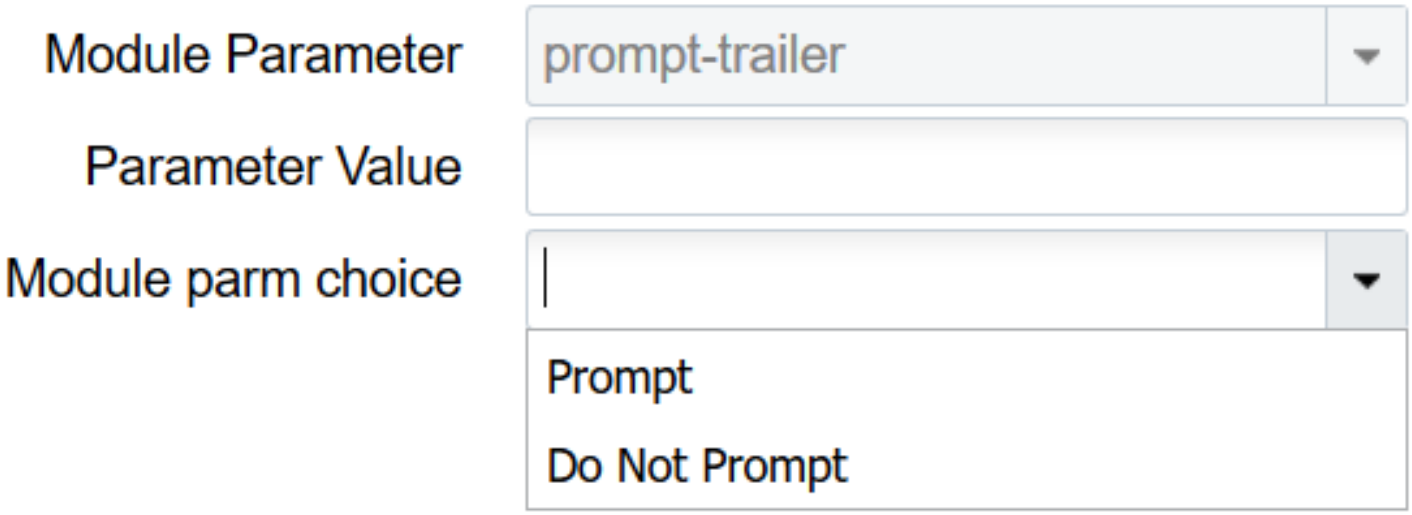
Prompt Trailer

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 receiving module and click **Details**. This will display all the parameters for the selected module.
3. Select the parameter “prompt-trailer”. Click **Edit**.

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



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.

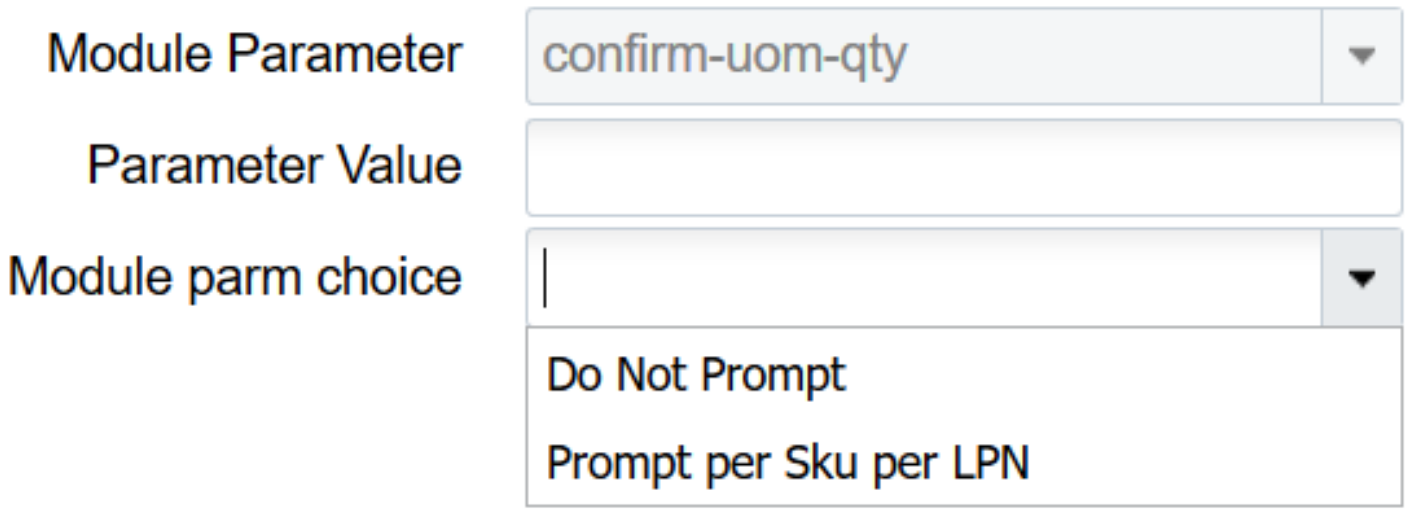
Prompt Case/Pack Qty

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 receiving module and click **Details**. This will display all the parameters for the selected module.
3. Select the parameter “confirm-uom-qty”. Click **Edit**.

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



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) _________________
```

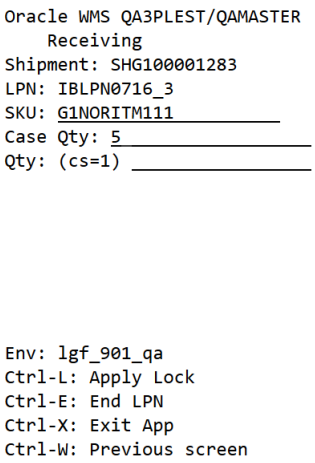
```
Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-Q: Change Case/Pack Qty
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

   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.



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.

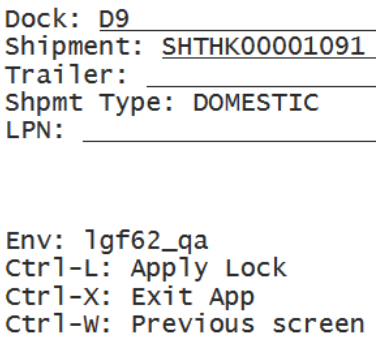
Exceptions – Receiving with Lock Codes

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

Adding Lock Codes to LPNs in the Mpbile Transaction

1. Enter the receiving 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 system will prompt for a lock code that populates a lock code that is configured for the parent company.



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

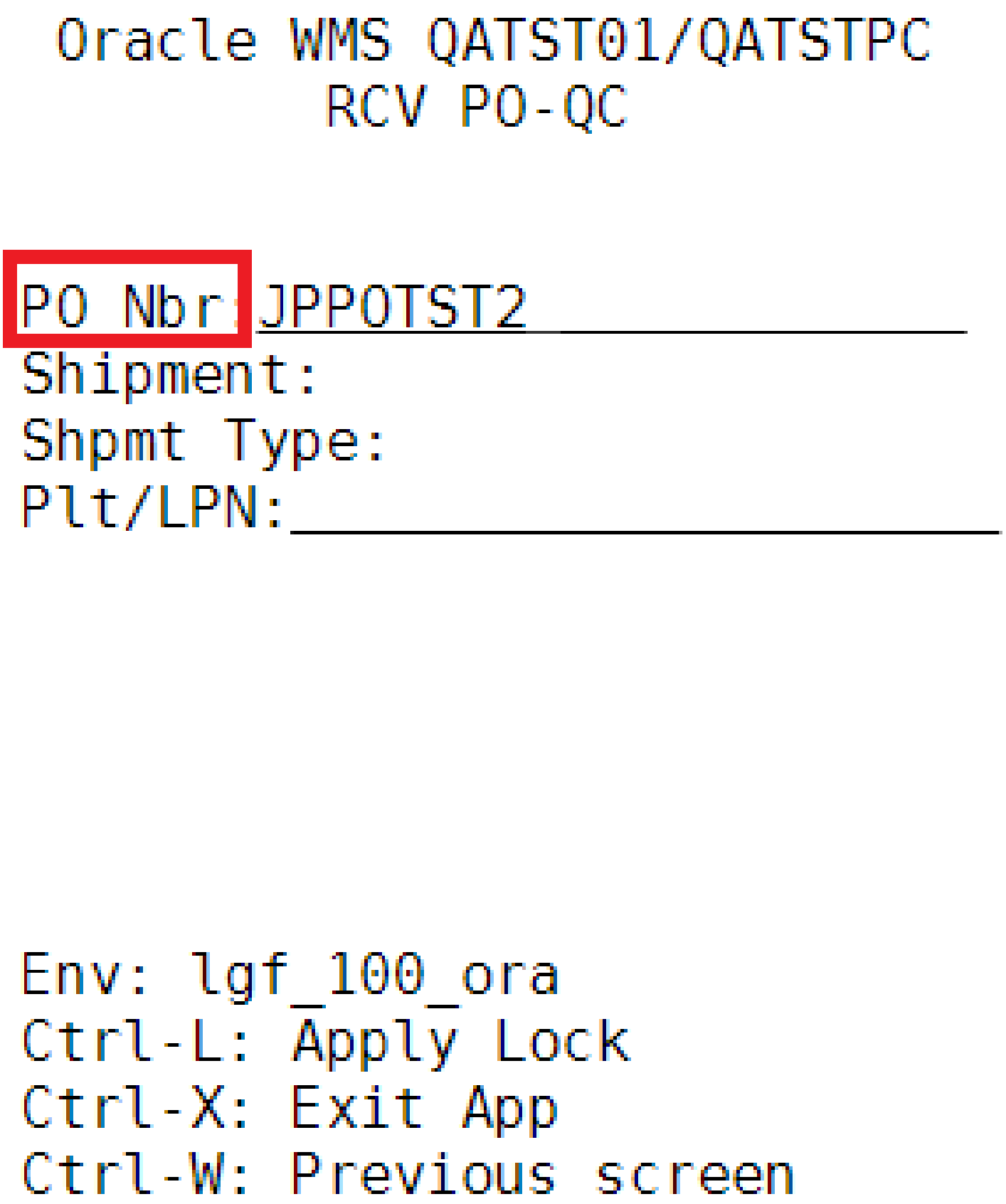
You may want the option to receive inventory against Purchase Orders (POs) without the need of an ASN.

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

Modules » Parameters

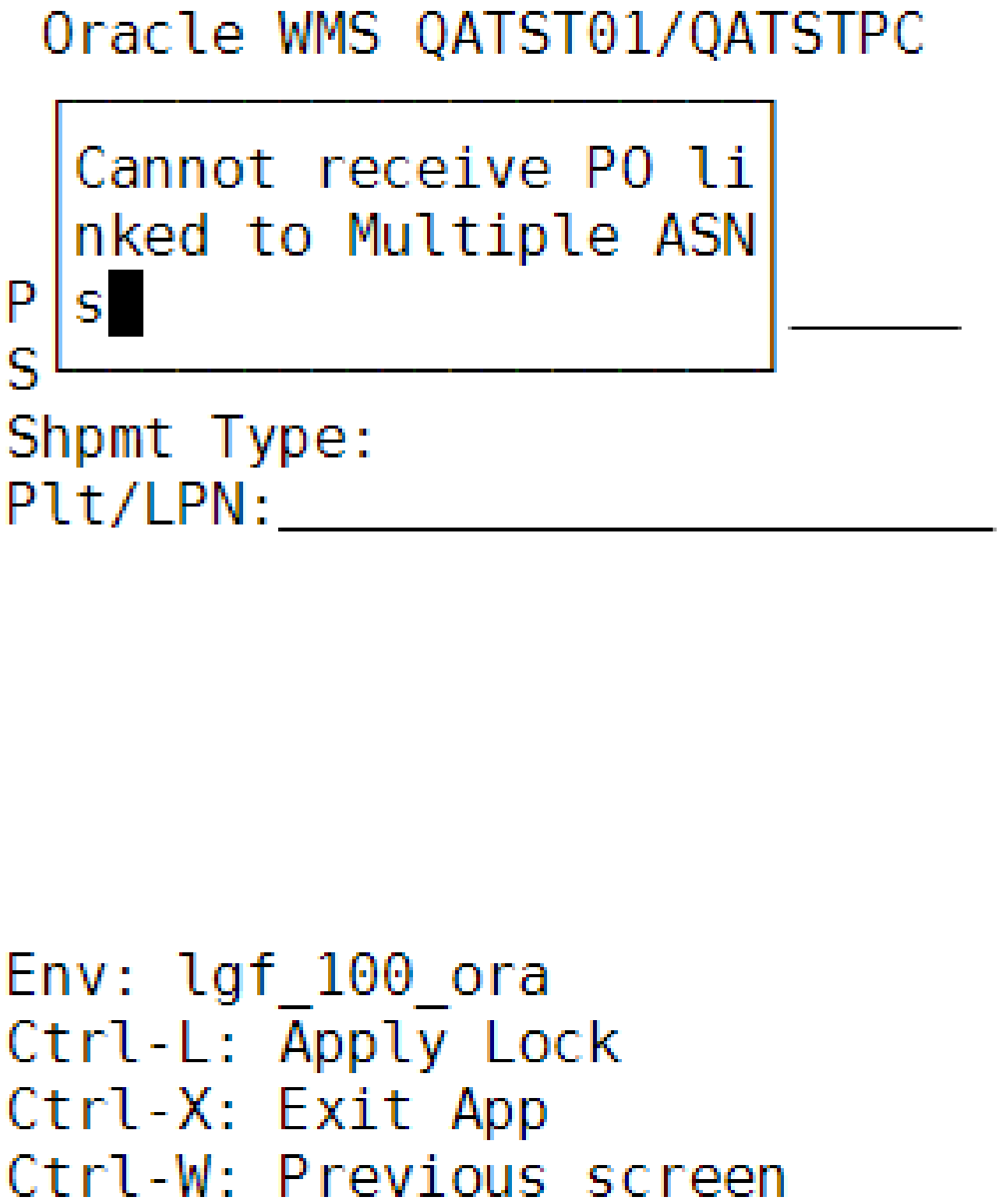
Parameter Name	Module	Parameter Type	Parm choices
restrict-pa-type	RF-Text: Recv {lpn} Shipment	Selection	None|At Pallet Level|At LPN Level|Both
single-sku-management	RF-Text: Recv {lpn} Shipment	Selection	None|Assume Single SKU|Restrict multi-sku
infer-prepack-parent-item	RF-Text: Recv {lpn} Shipment	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 pı
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.

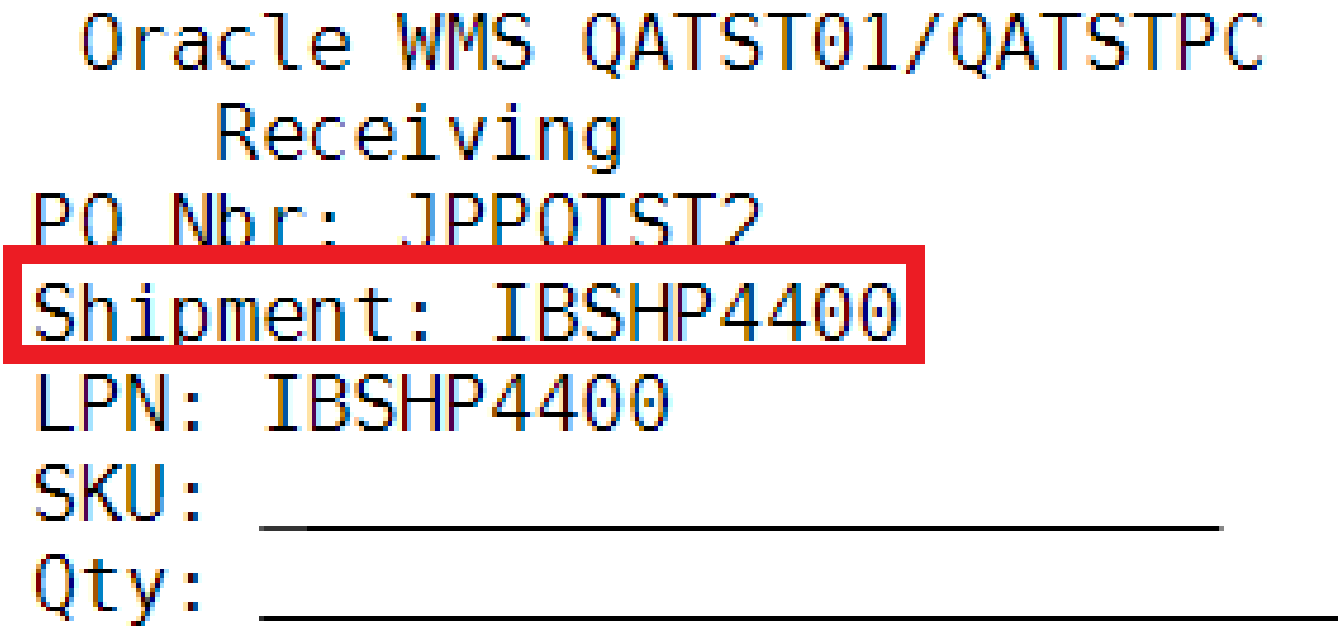

Oracle WMS QATST01/QATSTPC
RCV PO-QC
PO Nbr: JPPOTST2
Shipment:
Shpmt Type:
Plt/LPN:
Env: lgf_100_ora
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen

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
s
P
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.



- 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.

Prompt for PO Sequence Number/PO Line Schedule Number

In order to support reconciliation of Purchase Order (PO) lines under receipt, the Parameter (prompt_po-seq-line) is available in Receive (LPN) Shipment (rf.inbound.cwrfrecvlpnshpmt) and Receive Load (rf.inbound.cwrfrecvlpnload) modules which supports prompting for the PO sequence number or the PO line schedule number based on the configuration.

PARAMETER DETAILS

The prompt_po-seq-line parameter has the following options under the drop-down:

- PO Sequence
- PO line schedule

NOTE: The default value of the prompt_po-seq-line parameter is Blank. When the parameter is set to Blank, the system exhibits the existing behavior and should not prompt for the PO sequence or line schedule number.

Companies using Oracle WMS Cloud together with Oracle SCM Cloud should set the parameter "prompt_po-seq-link" screen parameter to be "PO Line Schedule."

This parameter can be used in the following flows:

- PO Based Receiving
- Receiving Flow
- Receive by Load

The following table provides details about the parameter behavior for these flows when the prompt_po-seq-line parameter is set to PO Sequence or PO line schedule:

Flow	prompt_po-seq-line set to: Purchase Order (PO) Sequence	prompt_po-seq-line set
PO Based Receiving	• If a PO has multiple details with the same SKU, the system prompts for the PO **sequence list.** • If a PO only has a single detail for a SKU, (if there is no conflict), the system will not prompt for the PO sequence number. • For an Attribute tracked item, if the item level configuration is set to ***Required, validate, Allow user override*** the system prompts for the attribute even if the the system can determine the attribute from the PO sequence PO line schedule scan. • For an attribute tracked Item, if the Attribute prompt is set to ***Required, validate, Allow user override*** and the PO detail is already populated with an Attribute value, the system throws the following error message upon overriding the defaulted attribute during PO based receiving: "Scanned Attribute is not valid for the PO detail." • In case a user receives more quantity than the order quantity for a PO sequence number, the system prompts for the following warning message: "QTY received is more the anticipated PO detail qty, proceed?"	• If a PO has multiple **schedule** list. • If the line schedule for PO sequence nu • If a PO only has a si prompt for the PO li • for an Attribute trac ***Allow user overrid*** determine the attrib • For an attribute trac ***Allow user overrid*** the system throws t during PO based rec • In case a user receiv number, the system the anticipated PO d
Receive Shipment	• If there is only one detail/SKU for a PO or if the system can determine the PO sequence from the remaining PO details. the Purchase Order sequence list during IB shipment receiving does NOT appear.	• If there is only one d schedule from the P shipment receiving

Flow	prompt_po-seq-line set to: Purchase Order (PO) Sequence	prompt_po-seq-line set
	• The Purchase Order sequence list during IB shipment receiving appears if an IB shipment details has multiple PO numbers or PO -sequence combinations for the same SKU. • After selecting the PO number, if the selected PO has multiple lines for the same SKU, the system prompts for another pop up displaying the PO sequence numbers. • After scanning a SKU if multiple purchase orders are found, the system prompts for the purchase order list for the SKU. • After selecting the PO number, if the selected PO has multiple lines for the same SKU, the system prompts for another pop up displaying the PO sequence numbers. • For an Attribute tracked item, if the item level configuration is set to ***Required, validate, Allow user override*** the system prompts for the attribute even if the system can determine the attribute from the PO sequence scan. • For an attribute tracked Item, if the Attribute prompt is set to ***Required, validate, Allow user override*** and the PO detail is already populated with an Attribute value, the system throws the following error message upon overriding the defaulted attribute during PO based receiving: "Scanned Attribute is not valid for the PO detail." • This error message should not appear when prompt-po-seq-line is not configured. In that case, users can scan an unanticipated attribute. A new shipment detail will be created with 0 shipped qty without the PO number populated. • If a user receives more quantity than the order quantity for a PO sequence number, the system prompts for the following warning message: "QTY received is more the anticipated PO detail qty, proceed?"	• The Purchase Order an IB shipment deta combinations for th • After scanning a SK purchase order list f • After selecting the P the system prompts • If the line schedule r for PO sequence nu • For an Attribute trac ***validate, Allow use*** system can determi • For an attribute trac ***Allow user override*** the system throws t during PO based rec • This error message In that case, users ca created with 0 shipp • If a user receives mo the system prompts anticipated PO detai
Receive by Load	• System prompts for the PO number and the sequence list after scanning the SKU in case the PO has multiple details for the same SKU or the IB Shipment has multiple POs for the same SKU. • User is prompted for the PO number as a list right after the SKU scan (showing all the eligible PO number-PO sequence number for the scanned SKU that the user can receive for the IB Shipment) . • After selecting the PO number, if the selected PO has multiple lines for the same SKU, the system prompts for another pop up displaying the PO sequence numbers. • In case an IB Shipment has only one detail, or if the IB shipment has multiple details carrying different PO for different SKUs, the system doesn't prompt for the PO number list because the system can identify the sequence number to be received. • For an attribute tracked Item if the Attribute prompt is set to ***Required, validate, Allow user override*** and the PO detail is already populated with an Attribute value, the system throws the following error message upon overriding the defaulted attribute during PO based receiving: "Scanned Attribute is not valid for the PO detail." • This error message should not appear when prompt-po-seq-line is not configured. In that case, users can scan an unanticipated attribute. A new shipment detail will be created with 0 shipped qty without the PO number populated. • In case, a user receives more quantity than the order quantity for a PO sequence number, the system prompts for the following warning message: "QTY received is more the anticipated PO detail qty, proceed?"	• System prompts for case the PO has mul for the same SKU. • User is prompted fo eligible PO number • After selecting the P the system prompts • In case an IB Shipme carrying different PO schedule number lis received. • For an attribute trac user override and th throws the following based receiving: "Sc • This error message In that case, users ca created with 0 shipp • In case, a user receiv number, the system the anticipated PO d • If any of the PO line prompts for the PO only if the scanned

QUANTITY DISTRIBUTION FOR PO AND SHIPMENT BASED RECIPT

Oracle WMS Cloud has been updated so that when the prompt_po-seq-line screen parameter is set to blank, the system evenly distributes the received SKU quantity across multiple Purchase Orders or purchase order lines, which resolves purchase order line reconciliation issues. Quantity distribution is only supported for IB shipments details carrying multiple purchase orders for the same SKU or a purchase order with multiple lines for the same SKU.

The following table provides details about the system behavior for these flows when the prompt_po-seq-line parameter is set to blank:

Flow	Behavior
PO Based Receiving	• When set to blank and the **Purchase Order** has a tolerance, the excess quantity is latched to the first detail after the quantity distribution happens evenly across the PO line numbers. • If the PO does **NOT** have tolerance defined, the system should evenly distribute the quantity across the IB shipment details for the respective PO and PO line numbers. • If a PO has multiple lines with an attribute tracking SKU, the system will not distribute the qty across the PO line evenly if the PO lines are populated with different Attributes.
Receive Shipment (Shipment is carrying multiple PO numbers or PO details of the same SKU)	• When set to blank and the **Shipment** has a tolerance, the excess quantity is latched to the first detail after the quantity distribution happens evenly across the IB shipment details for the respective PO and PO line numbers. • If a shipment is carrying multiple Purchase Orders of the same SKU and the tolerance percentage is at the PO or both at shipment and PO, the system evenly distributes the quantity across the POs and the excess qty for the tolerance percentage will be carried forward to the next eligible PO after the tolerance limit of the first PO is exhausted. • If the shipment does **NOT** have tolerance defined, the system should evenly distribute the quantity across the IB shipment details for the respective PO and PO line numbers for the same SKU.
Receive Load (Shipment is carrying multiple PO numbers or PO details of the same SKU)	• When set to blank, and users try to receive an IB shipment with multiple details for the same SKU converted from a PO, the system should evenly distribute the SKU quantity across the IB shipment details for the respective PO and PO line numbers. • If the PO/IB shipment does **NOT** have tolerance defined for the SKU, the system evenly distributes the quantity across the details carrying multiple PO numbers or PO details for the same SKU. • If a shipment is carrying multiple POs of the same SKU and the tolerance percentage is at the PO or both at shipment and PO, the system evenly distributes the quantity across the POs and the excess qty for the tolerance percentage will be carried forward to the next eligible PO after the tolerance limit of the first PO is exhausted.

PREVENT CONSUMING ENTIRE PURCHASE ORDER DURING PO-BASED RECEIVING

A new screen parameter 'prevent-entire-po-to-asn-conversion-flg' has been introduced in the **Receive Shipment** (rf.inbound.cwrfrecvlpnshpmt) module which allows you to restrict the system from converting the entire PO to a shipment right after the PO scan during PO based receiving. The screen parameter receiving mode should be set to PO based receiving.

PARAMETER DETAILS

The **prevent-entire-po-to-asn-conversion-flg** parameter has the following options under the drop-down:

- No (default behavior)

- Yes

When the **prevent-entire-po-to-asn-conversion-flg** is set to **Blank** or **No**,

- The system converts the entire PO to an ASN during PO based receiving. However, the system converts the entire PO to an ASN only after you scan or skip the trailer scan during PO based receiving.
- In case multiple shipments are created prior to PO based receiving, the system will display the following error message right after the PO scan.

“Cannot receive PO linked to Multiple ASNs”

- Vendor QC will be supported for this mode and the quality check will happen based on the shipped quantity and the vendor QC configuration.
- Users will not be able to reduce the purchase order quantity once the entire PO is converted to a shipment during PO based receiving.

When the **prevent-entire-po-to-asn-conversion-flg** is set to **Yes:**

During PO Based Receiving, the system can create the ASN details based on the PO quantity a user is receiving from PO-based receiving mode, so that the whole PO does not get converted to an ASN and its respective details. This allows purchase orders that have been partially received to be updated. For example, supply chain planning may send a recommended change for a purchase order when the supplier was not able to ship the full expected quantity.

NOTE: The purchase order quantity can’t be updated for less than the received quantity.

- The system prevents consuming the entire PO to the respective IB shipment details when you scan a PO in PO-based receiving mode. After scanning the PO number, the system creates only the IB shipment header based on the PO and the trailer number combination (if no IB shipment with status less than Verification in progress is found for the same PO and trailer number combination.)
- After you scan the trailer number, if no open ASN is found, then the system creates a new ASN associating the trailer number to proceed with PO based receiving. The ASN header won't be created until you scan or skip the trailer number.
- You can press the **Ctrl-E** hot key to end receiving on the PO based receiving transaction and the shipment details created will have 0 as the shipped quantity if no prior shipment is created for the PO from the UI or the interface.
- Vendor QC is not supported in this mode of PO based receiving as the shipped quantity for the shipments created during this mode of PO based receiving will be 0.
- The shipment verification files generated upon ASN verification of the ASNs created during PO-based receiving will also have a shipped quantity as 0.
- The system will create a new trailer number record if you scan a trailer number which is not present in the system and the system latches the trailer number to a Shipment with ‘In transit’ status and which does not have

a trailer number populated. If no eligible shipment is found for the PO trailer combination, the system then creates a new Shipment with the PO trailer combination.

- Users can receive the remaining PO order in different trailers. The system creates a new Shipment with 0 as shipped quantity with the PO and trailer combination and allow users to receive the outstanding PO quantity against the shipment.

- In case the system finds multiple shipments created prior to PO based receiving, and if it cannot identify the shipment even after you scan the trailer number, the system will throw the following error message: "PO linked to Multiple ASNs created prior to receipt, cannot perform PO based receipt"

However, the system will allow you to proceed with PO based receiving if multiple shipments are created with 0 as shipped quantity in this mode of PO based receiving. The shipments will be identified and picked based on the PO trailer combination.

BEHAVIOR FOR PO BASED RECEIVING BASED ON FLAG

Transaction	prevent-entire-po-to-asn-conversion-flg = Blank /NO	prevent-entire-po-to-asn-convers Yes
Entire PO gets converted to shipment	**YES**	**NO**
Shipped qty is more than zero	**YES**	**NO**
PO order qty can be reduced after users starts receiving partially	**NO**	**YES**
PO Seq /Line prompt is supported	**YES**	**YES**
Attribute Prompt is based on shipment dtl	**YES**	**NO**
Vendor QC is supported	**YES**	**NO** **(based on PO details -if PO has At**
Shipment is created/Identified After trailer scan	**YES**	**YES** **(Only if shipment is created Prior t receiving)**
verification file has 0 as Shipped qty	**NO**	**YES**
Allow PO recv when Multiple Shipments are found	**NO**	**YES** **(If system can identify shipments scan)**
Additional PO qty or PO details gets latched to the same ASN	**YES**	**NO**

INTRODUCTION OF NEW MESSAGES

Parameter status	Use case	Error message
prevent-entire-po-to-asn-conversion-flg= Yes	Multiple IB shipments are found with more than 0 as shipped qty in less than verification in progress	PO linked to Multiple ASNs created prior cannot perform PO based receipt

Parameter status	Use case	Error message
prevent-entire-po-to-asn-conversion-flg= Yes	Shipment is attached to an appointment and the scanned trailer does not match with the shipment	Trailer and shipment do not match

Marking the Reference Purchase Order column as '*' when an LPN is Received With Multiple POs

The system marks the REF PO number column on the IB container UI as "*" for the IBLPNs received with multiple purchase orders. This will indicate that the LPN is carrying multiple purchase orders.

NOTE: The IHT-1 LPN received inventory history will continue to get split based on the PO numbers getting received in the IBLPN. Additionally, The REF PO number column on the IB container UI will show the PO number if the IBLPN is being received with only a single purchase order.

STEPS TO ENABLE

1. To prompt for PO-sequence number or the PO-line schedule number during **Inbound Receiving**, in Modules, search for the **Recv {lpn} Shipment** module.
2. Then from Screens - Screen Parameters, , select the **PO Sequence** or **PO line schedule** option from the **prompt_po-seq-line** parameter drop-down.

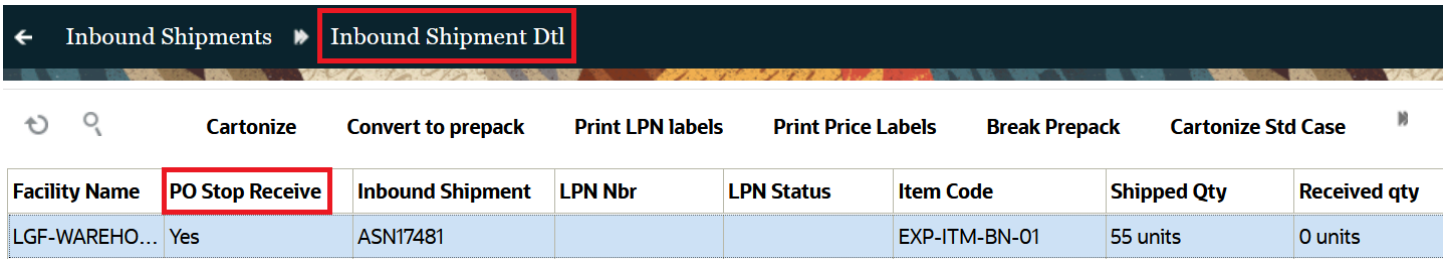
Stop Receiving against a Purchase Order Line

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.

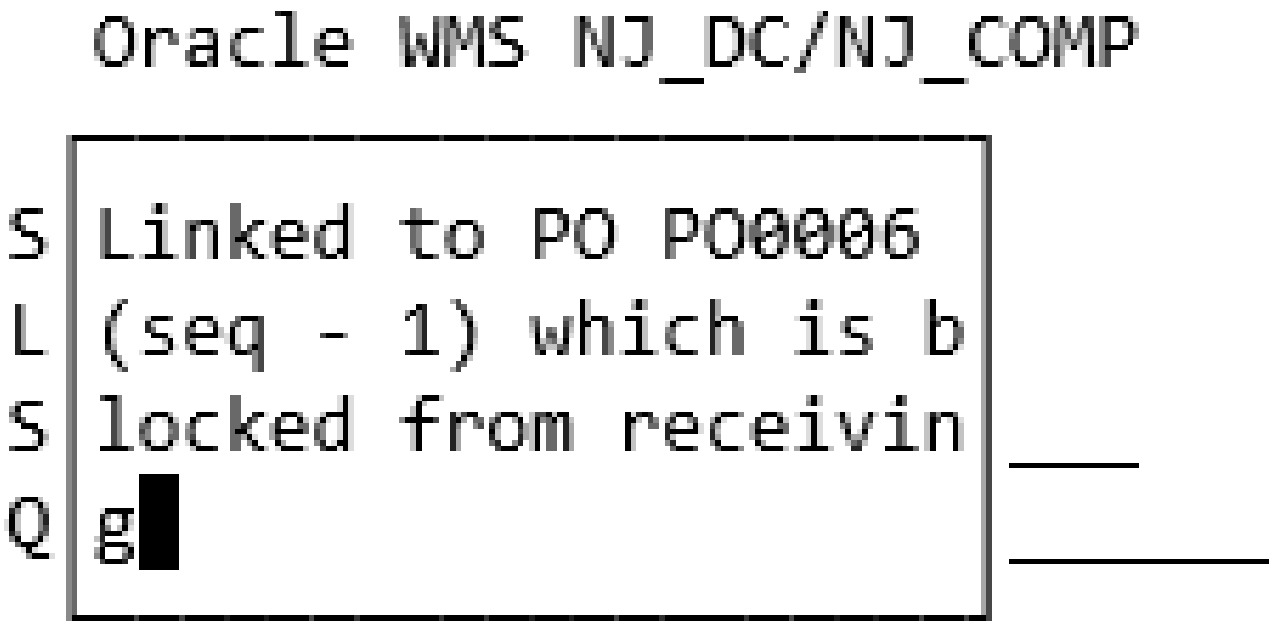


- The Purchase Order UI screen now shows the new field. You can search for it, but you cannot edit this field.
- You will not be able to create a shipment from the Purchase Order UI Screen if the shipment is linked to a Purchase Order detail with stop_recv_flg = Y.

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.



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:



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.

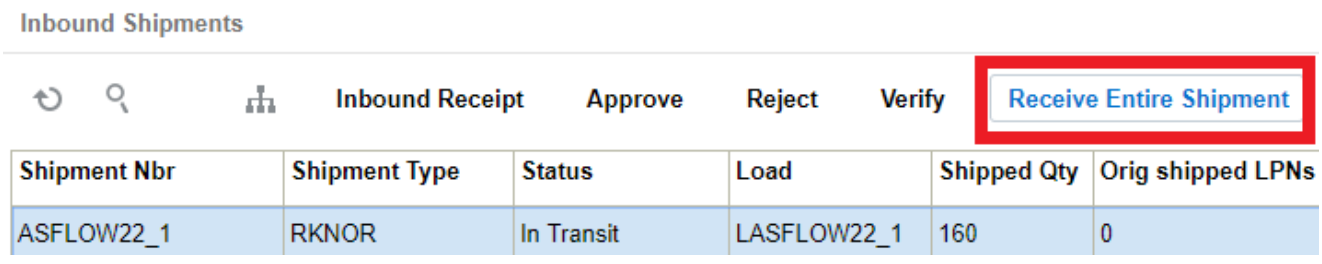
Receiving ASNs without the Mobile Transaction

Oracle WMS Cloud provides the ability to receive an entire ASN without the use of handheld device.

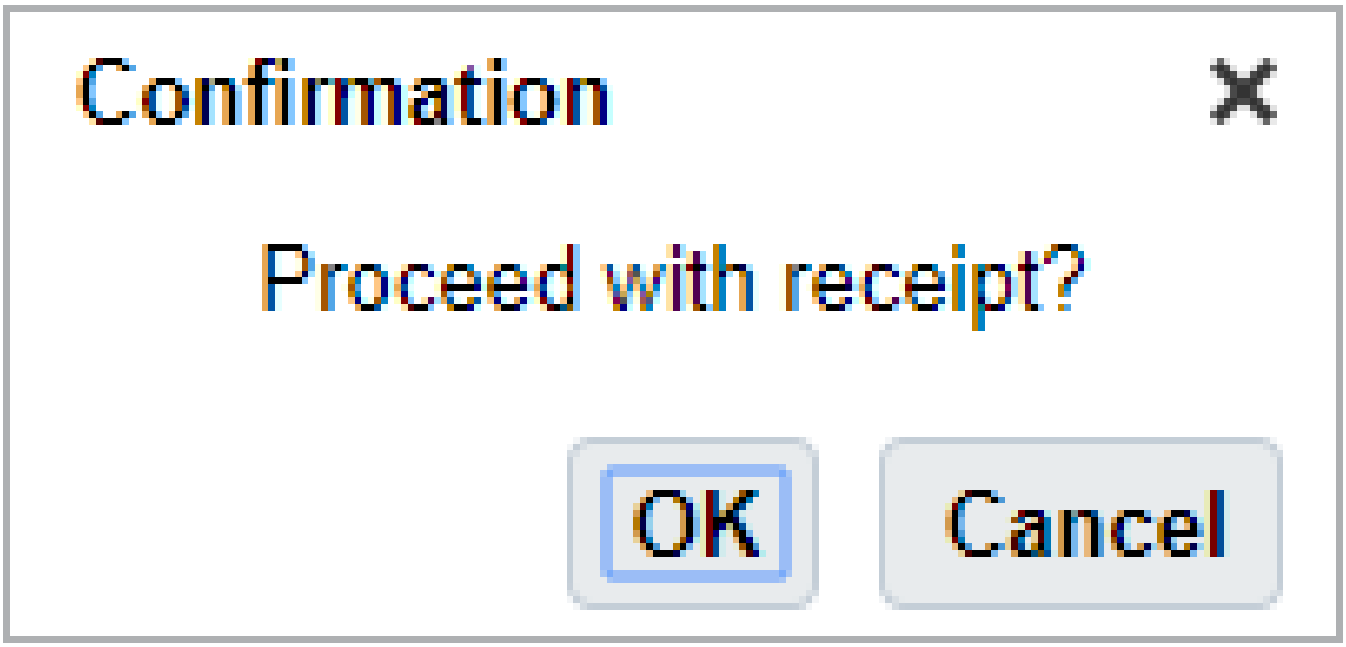
Pre-Condition: In order for this to work, the ASN must be fully cartonized (i.e. have all the LPN information provided in the ASN).

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.



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 detail receiving to enter the serial number information.

Auto Print Labels During Cartonization

Auto Print Lables During Cartonization allows you to print labels automatically during the cartonization process. This helps you streamlines the workflow by enabling label printing directly from the cartonization pop-up.

Auto Print Labels in the Cartonize Pop-Up

During Receive Entire Shipment process, the system displays an option **Print LPN Labels** in the Cartonize confirmation pop-up of the **ASN Detail** UI. This option allows you to auto-print the label and has following characteristics:

- By default, the **Print LPN Labels** flag will be disabled.
- On enabling the flag, the following fields are made available:
  - **Printer Name: Entre the name of the Printer.**

NOTE: If the printer name is left blank, the system will use the default printer configured for your user profile. If no default printer is set, the cartonization will proceed without printing labels.

- **Number of Copies**: Enter the number of copies you want the print.

Auto Print Labels in the Cartonize LPN by Cases Pop-Up

You can auto print labels for the **Cartonize LPN by Cases** action, allowing you to print LPN labels after cartonizing ASN details.

- **Default Behavior**: The **Print LPN Labels** flag will be disbaled.
- **When Checked**: You can enter the printer name and the number of label copies, enabling automatic printing after cartonization.

NOTE: You must have cartonization permission to access this functionality. However, you do not need the specific 'Print LPN Labels' permission to print from the Cartonization pop-ups.

Steps to Enable Auto Print Labels:

1. Access the **ASN Inquiry** UI and select the ASN details you want to cartonize.
2. Use the **Cartonize** or **Cartonize LPN by Cases** option.
3. In the confirmation pop-up:
   - Check the **Print LPN Labels** flag.
   - Enter the **Printer Name** and **Number of Copies**.
4. Submit the cartonization request, and labels will print automatically.

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.

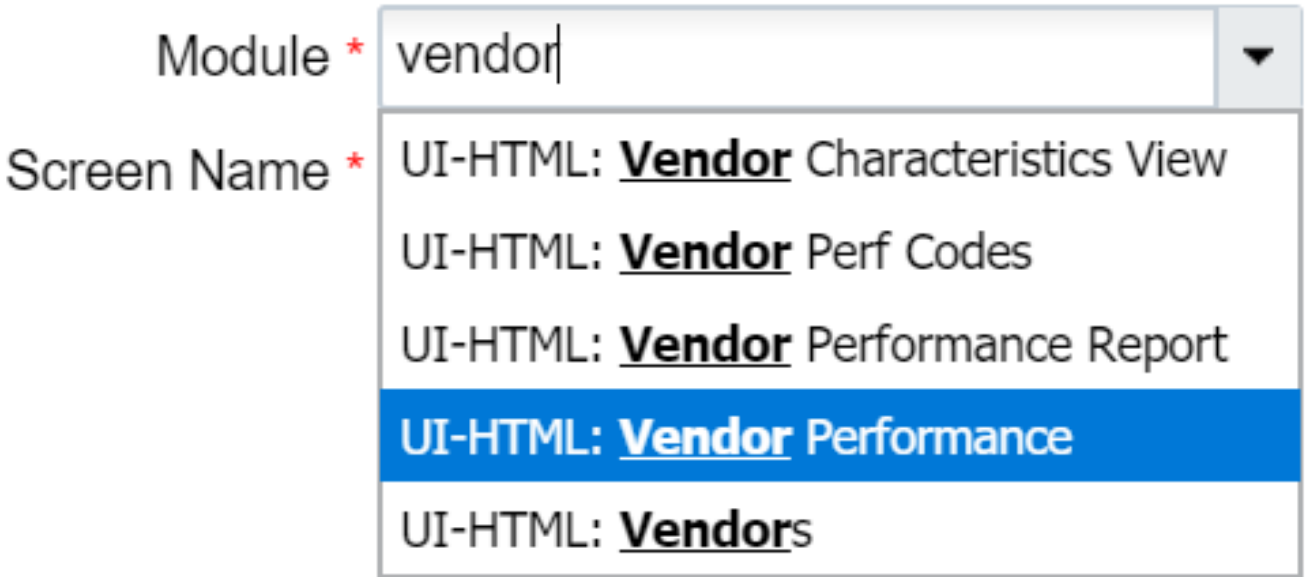
System-Directed Quality Control

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.*

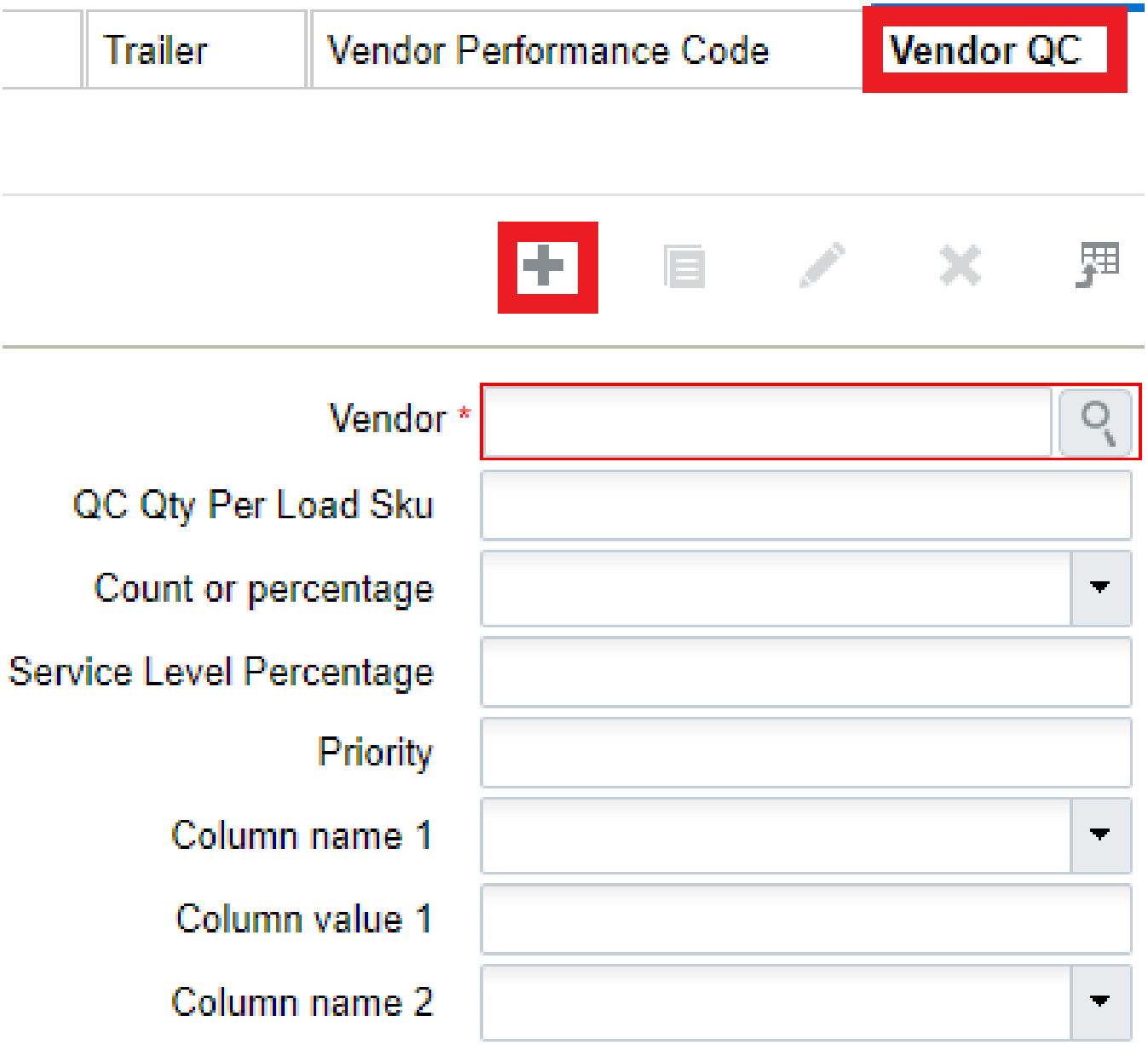
Configuration

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):



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:



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

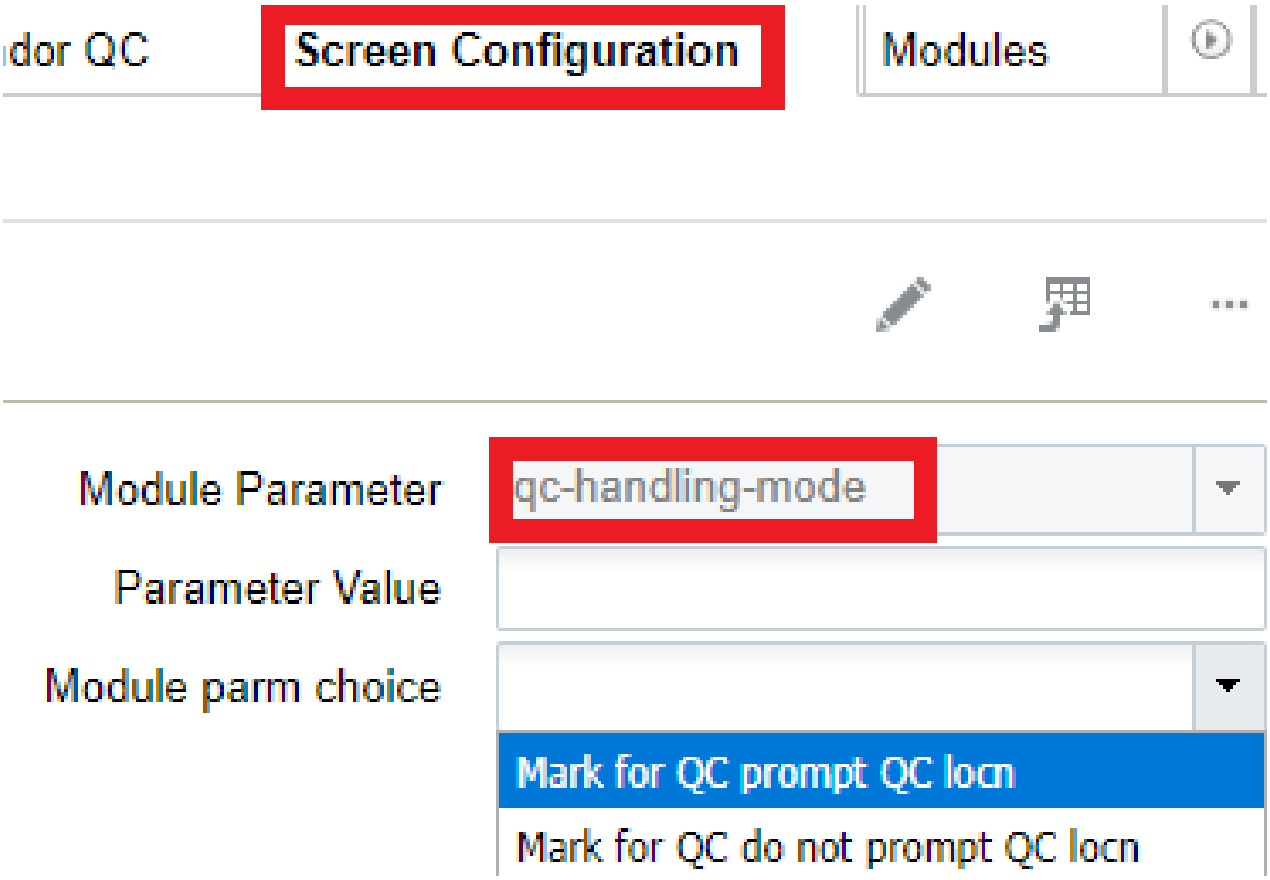
h. Column_value_2: Comparison value for the selected column in column_name_1. If no value is provided, the system will search for the corresponding column_name_1 with value =blank.

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:

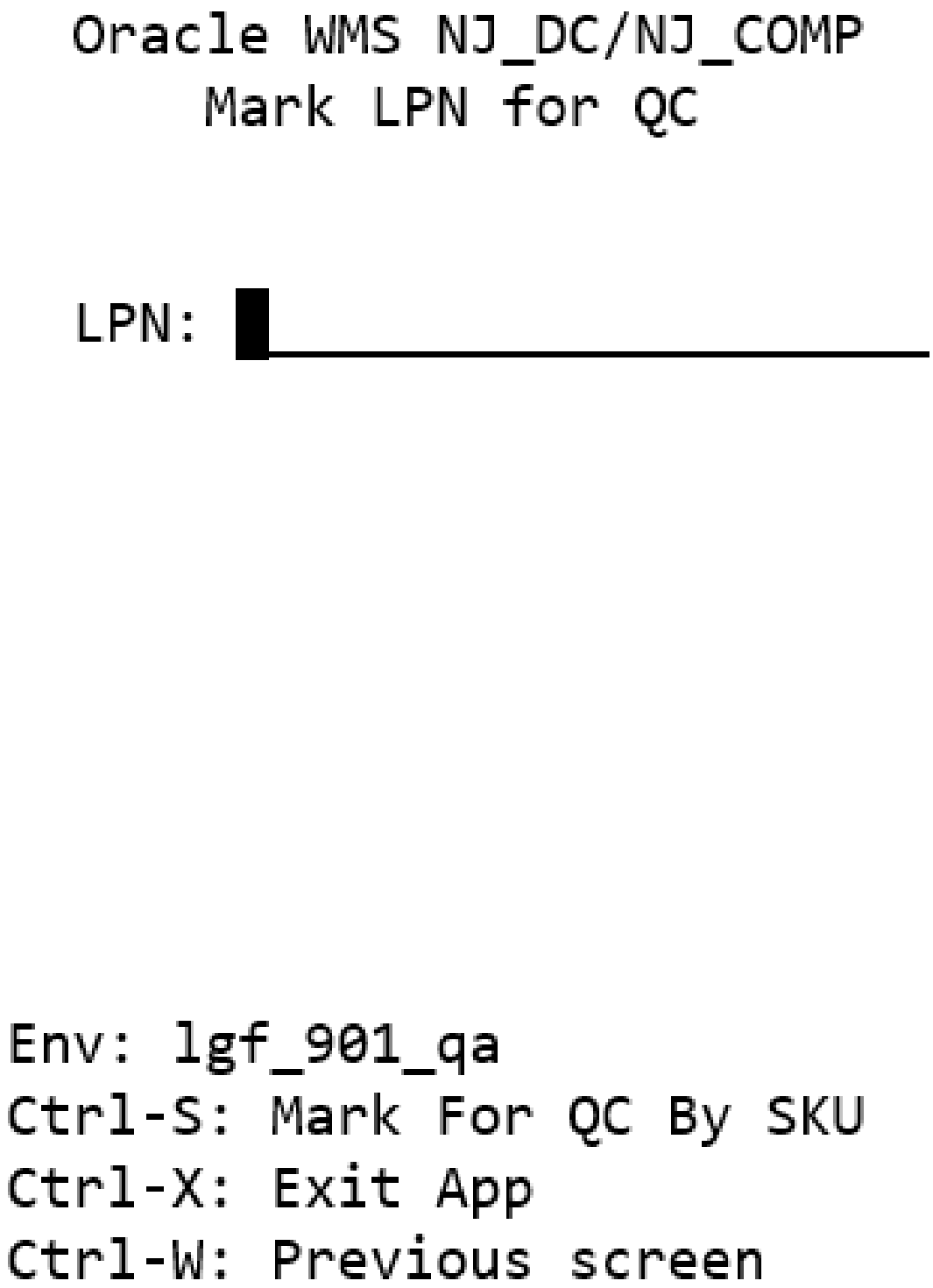
- If we receive inventory from Vendor-1 for an item with Putaway type "ABC", then we would like to divert 30% of Received Inventory to the QC area.
- If we receive inventory from Vendor-1 for item with Putaway type "XYZ", then we would like to divert 75% of Received Inventory to the QC area.

8. Configure the modules that will be used in QC. First, enable the receiving module to recognize LPNs for QC.
   a. From the 'Screen Configuration' screen, select a 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.

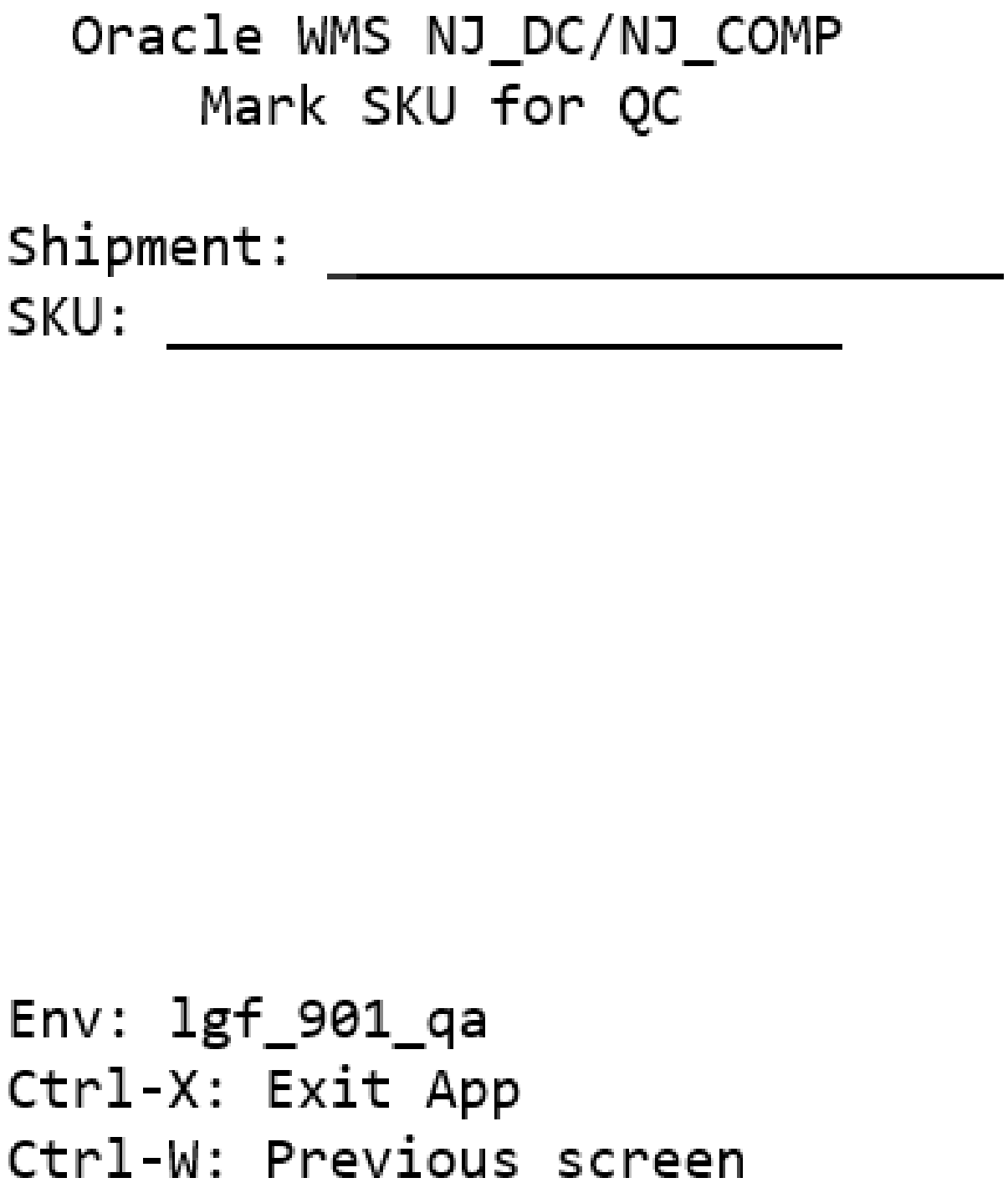


   c. Click "Save".

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:



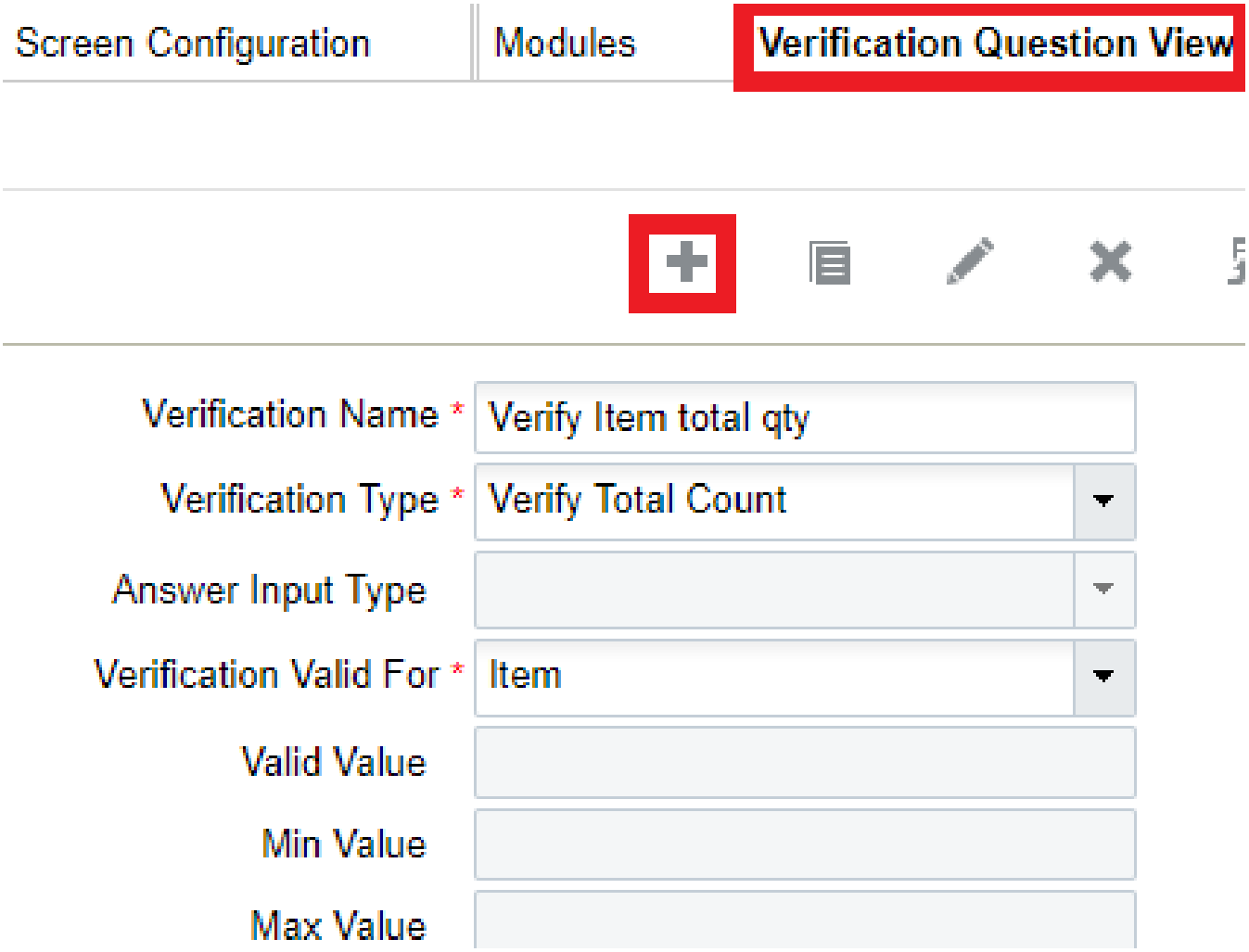
The **Mark SKU for QC** transaction does not support scanning an LPN which has already been received. If the LPN has already been marked for QC, the LPN is part of a shipment, and the status is Verified, the error “Scanned LPN is not valid for QC” displays.

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 QC Complete.



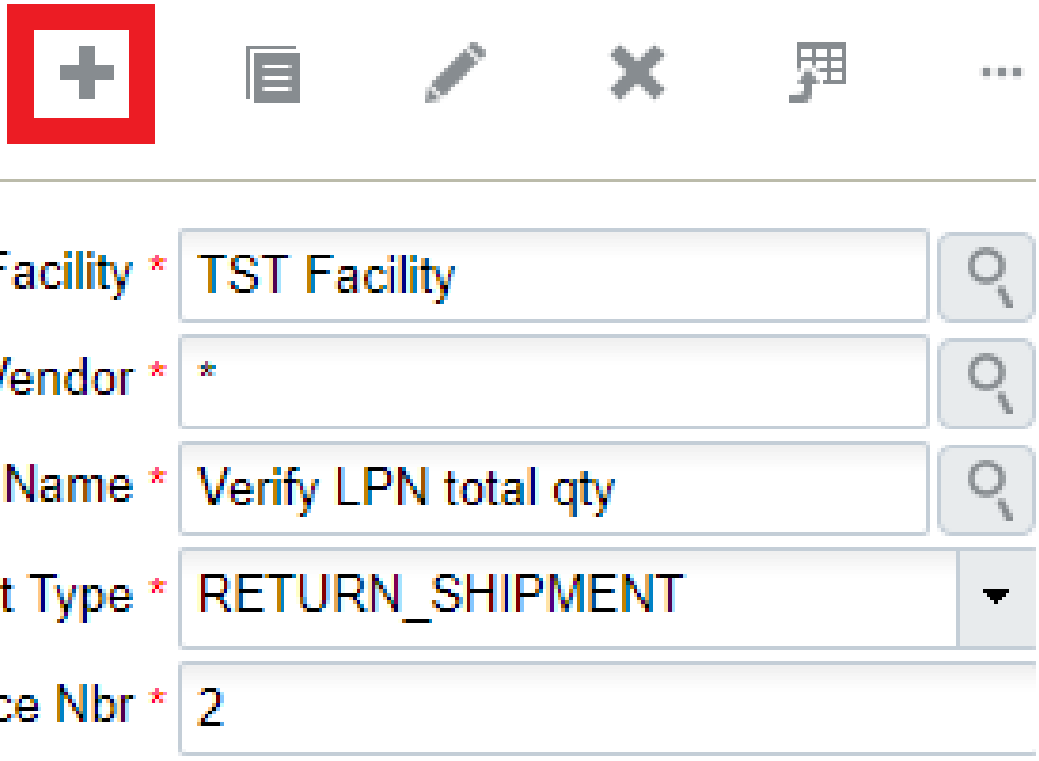
Verification Questions UI

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

Fields	Description
	○ 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.

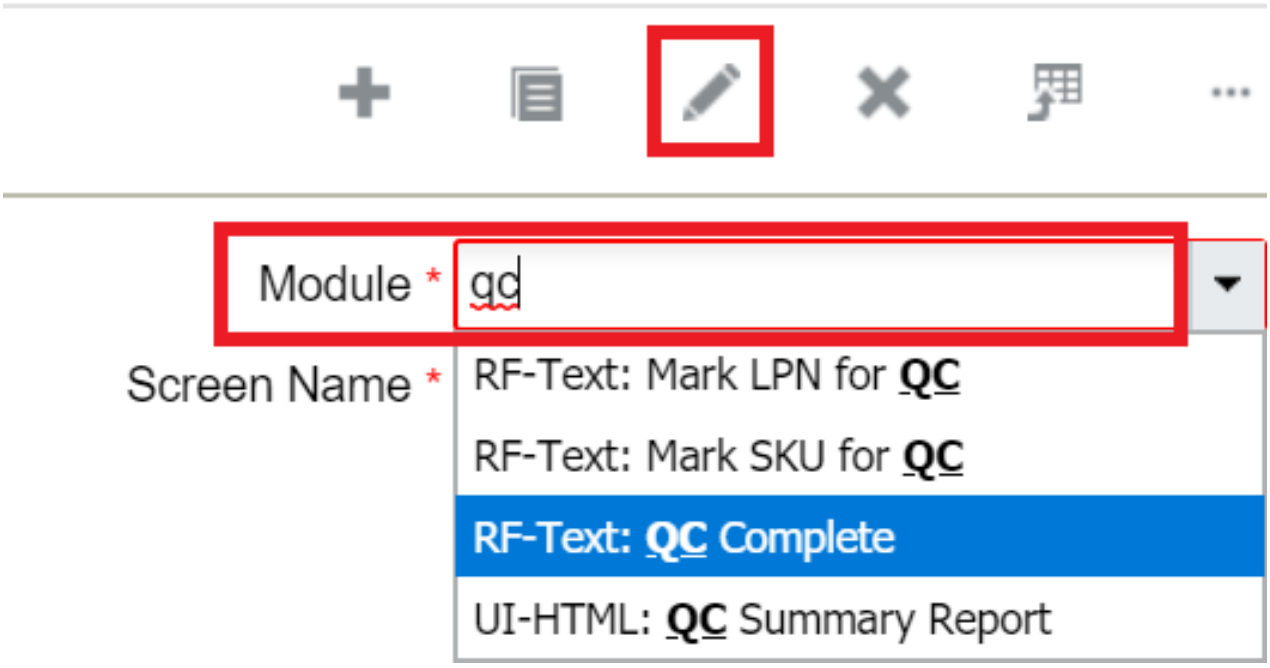


    You can associate questions to the following items:

    - 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 module for processing the LPNs for QC.
    a. Go to the 'Screen Configuration' screen.
    b. Add a new screen with the Create button ().



    c. Add this new screen to the appropriate Menu.

QC Complete

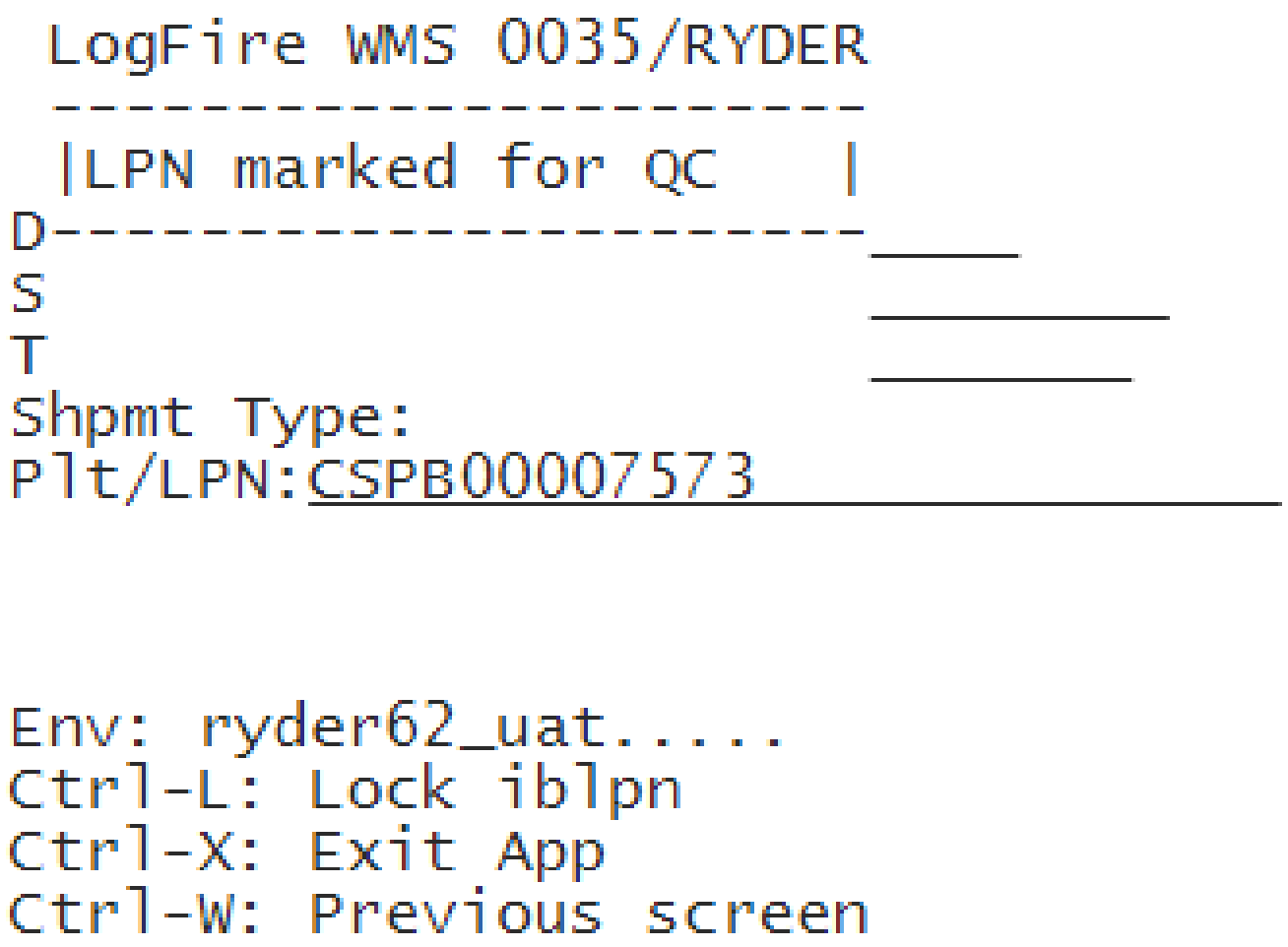
Parameters	Description
qty-entry-mode	None/Sku-Qty/Sku-Scan
qty-uom	None/Units/Packs/Cases
distribute-lpn-transaction	Valid Transaction name to call distribute LPN when QC passes or the LPN is accepted
prompt-vendorperf-code	None/No/Yes

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".

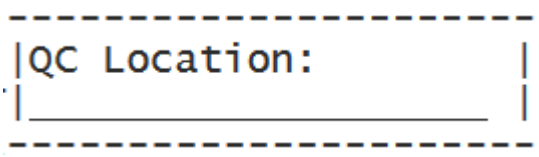
Note: the system validates user responses when answering a quality control question in the **Quality Control (QC) Complete** transaction (rf.inbound.cwrfqccomplete). If you set up a verification question requiring yes/no in the **Verification Question View** UI, the response will need to match the yes/no 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. Press Ctrl-A to proceed:



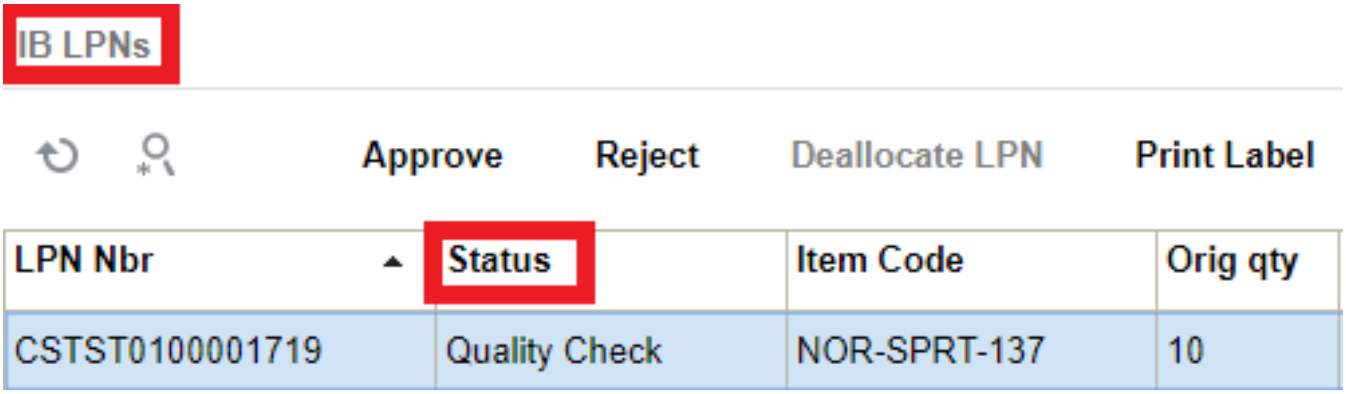
2. The system will prompt the user to locate this LPN to a QC location. Move this LPN to a QC location and scan its location barcode.



You can configure 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:



> **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:

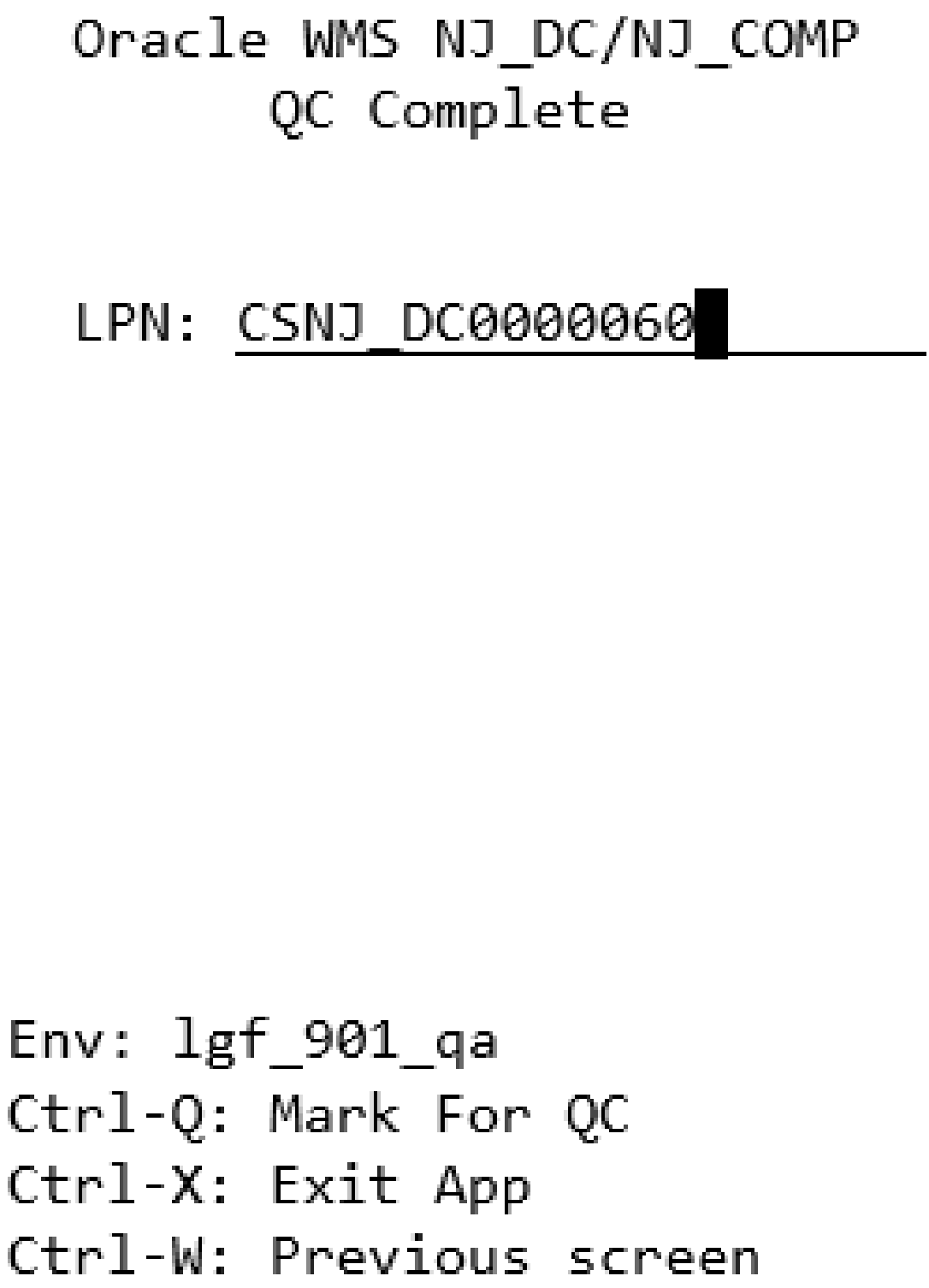
The LPN can be approved or rejected after it is received. If approved, the LPN’s status will change to “Located” and its contents are added to the facility’s inventory.

- 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 Mobiel Transaction:

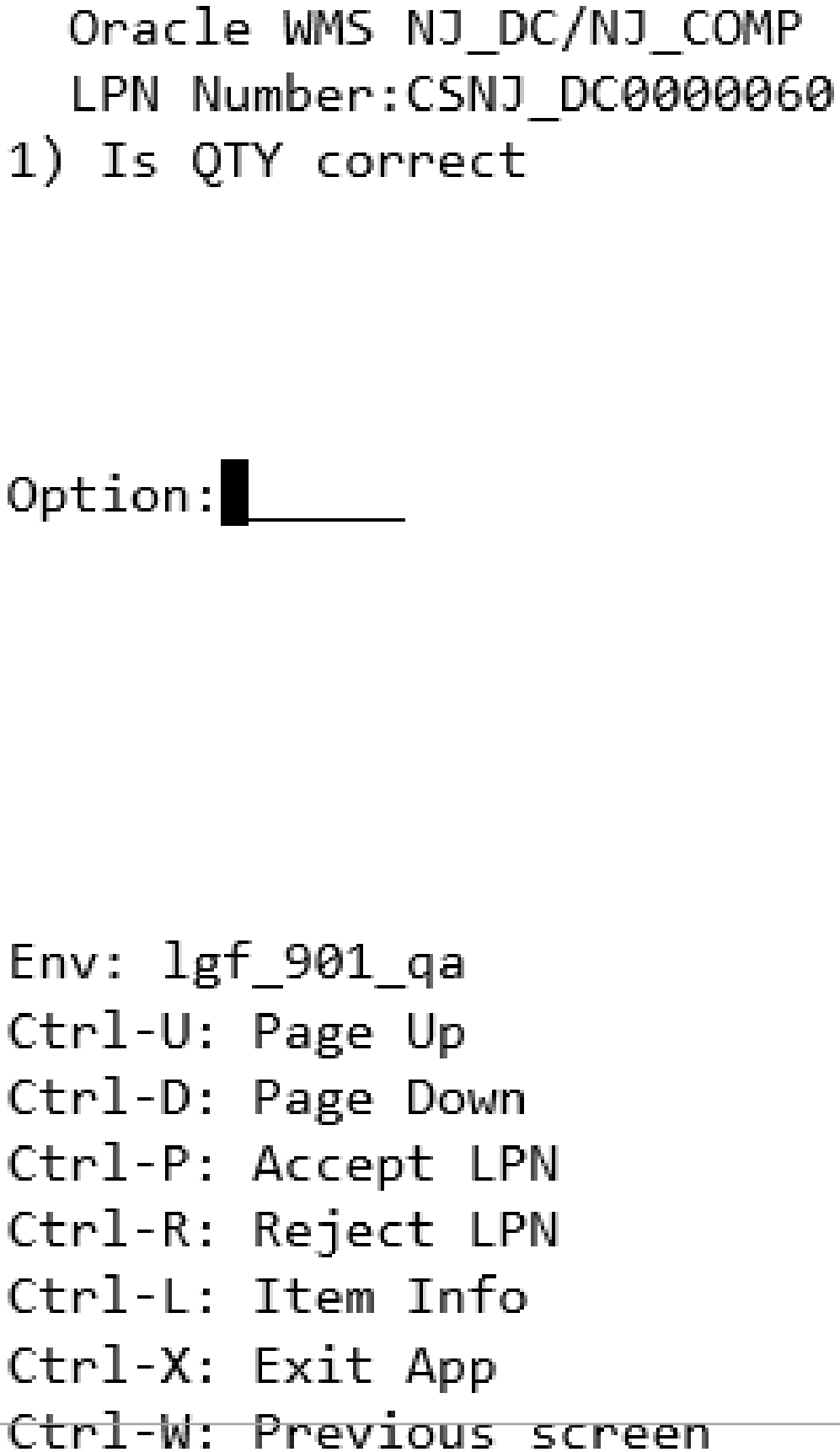
1. Enter the “Process QC” module.

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:

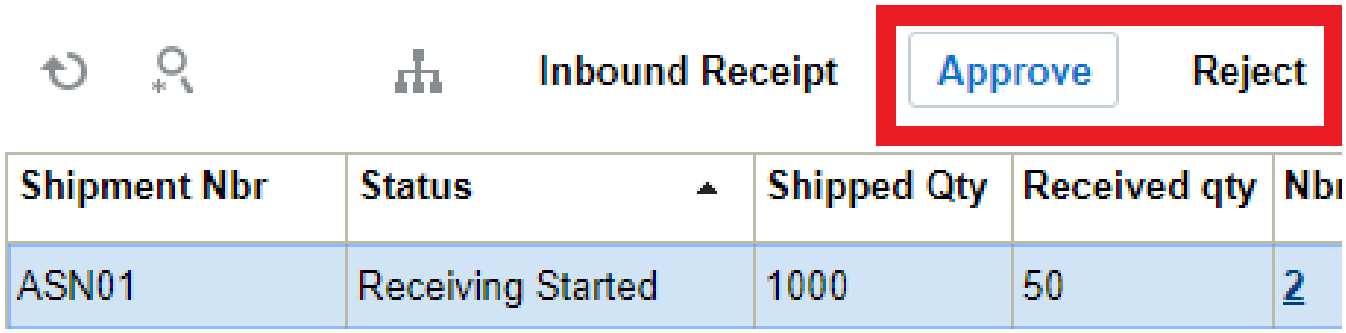

Oracle WMS NJ_DC/NJ_COMP
LPN Number:CSNJ_DC0000060
1) Is QTY correct
Option:
Env: lgf_901_qa
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-P: Accept LPN
Ctrl-R: Reject LPN
Ctrl-L: Item Info
Ctrl-X: Exit App
Ctrl-W: Previous screen

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.

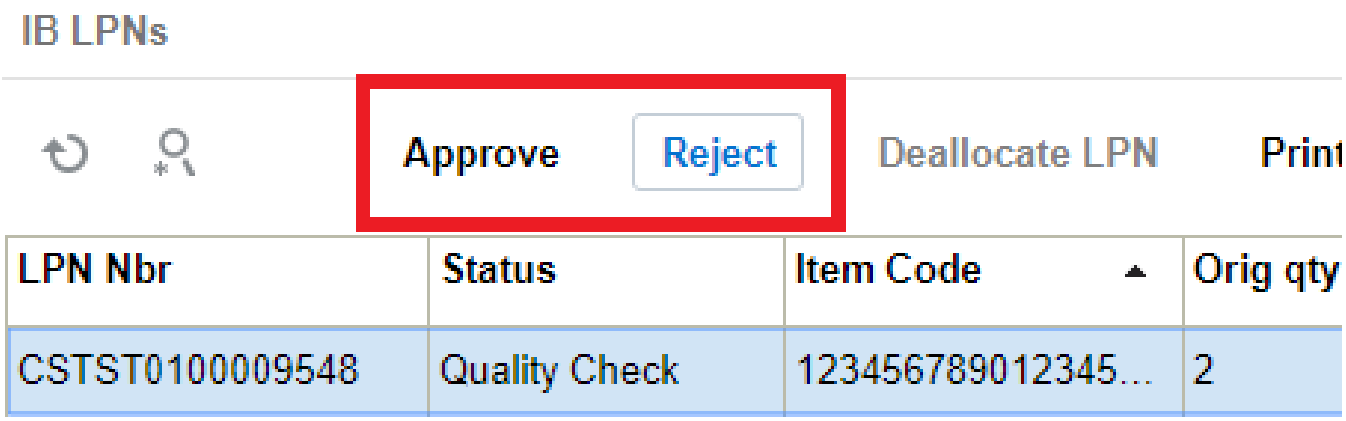
4. Press Ctrl-P to approve and Ctrl-R to reject.
    a. If the user enters Ctrl-R to REJECT, the system will display a confirmation message. Press Ctrl-A to proceed.
    b. If the user enters Ctrl-P to APPROVE, the system will display a confirmation message. Press Ctrl-A to proceed.

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.



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



Receiving of QC Rejected LPNs and Returning to Vendor

While performing quality check of inventory at the dock station, some inventories might be rejected. To improve inventory handling (to differentiate between actual containers received for putaway versus the QC rejected containers), you can allow QC rejected containers to be tracked and monitored within the warehouse for returning to Vendor. This allows easier identification of faulty or defect inventories.

Allowing QC Rejected Inventory into the Warehouse

You can receive the QC rejected inventory into the warehouse. To differentiate the QC rejected inventories you got a provision to update an un-allocatable lock code to the QC rejected inventories. On applying the lock code, the QC rejected status remains in Rejected status and the LPN status moves to Received. So, the system allows the rejected inventories to be brought inside the warehouse.

Applying Un-Allocatable Lock Code via QC Complete transaction

The lock code prompt for **QC Complete** works based on the parameter configuration for the **QC Rejected** inventories.

To configure the parameters in the **QC Complete** transaction, do the following:

1. Go to **QC Complete** (rf.inbound.cwrfqccomplete) module.
2. Configure the “rejected-inventory-handling” parameter to “Lock rejected inventory”.

   This enables the system to prompt for lock code while performing the **QC Complete** transaction to apply an un-allocatable lock code for the rejected LPNs.

   > **Note:** By default, the “rejected-inventory-handling” is set as a blank. If the “rejected-inventory-handling” is set as a blank, the system will not prompt for a lock code and does not track any QC Rejected inventories.

3. To auto populate an un-allocatable lock code for QC Rejected inventories, set the “rejected-lock-code” parameter with a valid lock code value.

   > **Note:**
   > - If the configured lock code is invalid, then the system displays an error message “Invalid lock code for facility or company" *(Message code 2013).* On accepting the message, the un-allocatable lock codes are displayed to select.
   > - By default, the “rejected-lock-code” is set as a blank. If“rejected-lock-code” parameter is not configured, then the system prompts for the un-allocatable lock code (if the QC Rejected inventory handling is set to Lock rejected inventory).

The following table details the behavior of the parameters:

QC Status	rejected-inventory-handling	rejected-lock-code	LPN Status	Behavior
QC Rejected	Blank	Blank	Canceled	The system does not prompt for lock code and does not track QC Rejected inventories.
QC Rejected	Lock rejected inventory	Blank	Received	You need to provide an un-allocatable lock code when prompted.
QC Rejected	Blank	Lock code provided	Canceled	The lock code is not honored.
QC Rejected	Lock rejected inventory	Lock code provided	Received	The system defaults the configured lock code and does not prompt for the lock code.

Note:

- If the LPN is QC accepted, the system doesn't prompt for a lock code.
- If you apply an allocatable lock code on the QC Rejected LPN or configured an allocatable lock code in the "rejected-lock-code" parameter, the system displays error message "Cannot QC reject with an allocatable lock code".
- Applied lock code is recorded under the "Lock Code" column in the Verification History view UI screen.
- On completion of **QC Complete** transaction, the system considers the QC Rejected inventories and updates the shipment and associated PO quantity (if any).

Once you configure the parameters for QC Complete module, you can proceed for quality check. For more details on QC process, refer to *Receiving/QC Process*.

Applying Lock Code via IB Container and IB Shipment UI

You can apply un-allocatable lock code for LPNs in the **IB Container** (IbContainerView) and **IB Shipment** (IBShipmentView) UI.

To apply an un-allocatable lock code for LPNs, do the following:

1. Go to **IB Container** or **IB Shipment** screen.
2. Select the records and click "Reject" action button.
3. In the Reject pop-up, select an un-allocatable lock code from the Lock Code drop-down list.

   Note:
   - The applied lock code will be applicable to all the selected LPNs subjected to QC.
   - Applying a lock code upon rejecting an LPN is not mandatory. If you are not selecting a lock code, on performing QC Reject, the LPN status moves to Cancelled.

4. Click **Submit**.

   On applying the lock code, the QC Rejected LPN status moves to Received and brings the LPN within the four walls.

   Note: If some of the selected LPNs already has the same lock code, the system displays an error message "Successfully completed:<LPN> Some of the LPNs are not rejected with lock code as the same lock is already applied to them <LPN>" and retains the same LPN status and do not get QC rejected.

Creating an Order for QC Rejected LPNs

Once you apply an un-allocatable lock code to an QC Rejected LPN, you can create an order to ship the rejected inventories from designated locations.

Primarily, you need to configure the un-allocatable lock code, to do so follow the below steps:

1. Go to **Order Type** screen.
2. Select an order type record and click edit (pencil) icon.

   OR

   To create a new order type, click create (plus) icon.
3. In the edit pane, enter the lock code in the “Eligible Lock code for Allocation” field.

   The system compares the lock code on the IBLPN with the defined lock codes. If the lock codes are matched, then the system allocates the QC Rejected IBLPN.

   Note:
   - You can define both allocatable and un-allocatable lock codes that allow IBLPNs to be allocated and shipped to the vendors via **Direct Allocation** and **Pick and Allocate** transactions.
   - You can use comma to separate and enter multiple valid lock codes.
4. Click **Save**.

Once you configure the order type, you can create order to send the QC rejected inventories to vendors. For more details on creating orders, refer to *Creating Orders in WMS* .

Allocating for QC Rejected LPNs

Once you configure the lock codes on the **Order Type** UI and create an order, you can allocate the QC Rejected LPNs to vendors via the **Pick and Allocate** and **Direct Allocation** transactions.

QC Rejected Inventory allocation is possible only through user directed mode in the **Pick and Allocate** transaction and LPNs should be in Reserve locations.

If the scanned LPN has multiple un-allocatable lock codes, but only one of them matches with the Eligible Lock code for Allocation in the Order Type, then the lock code with higher priority will take precedence.

If you scan an active location the system displays an error message “Order Type has lock code for QC Reject. <%> location is not supported for allocation.”.

The following table details the allocation of IBLPNs via Direct Allocation and Pick and Allocate:

IBLPN	Lock Code on the IBLPN	Lock Code Type	Lock Code for Order type	Behavior
LPN01	LC01	Allocatable		Not required. Do not provide any lock code.
LPN01	LC01	Allocatable	LC02 (un-allocatable)	IBLPN doesn’t gets allocated and the system displays an error message "Lock code mismatch".
LPN01			LC02 (un-allocatable)	IBLPN doesn’t gets allocated and the system displays an error message "Lock code mismatch".
LPN01	LC01	Un-allocatable		IBLPN doesn’t gets allocated and the system

IBLPN	Lock Code on the IBLPN	Lock Code Type	Lock Code for Order type	Behavior
				displays an error message “IBLPN has unlocatable lock”.
LPN01	LC02	Un-allocatable	LC02, LC03 (both un-allocatable)	IBLPN gets allocated. (If lock code priority is not set or both LC02 and LC03 has same lock code priority).
LPN01	LC03	Un-allocatable	LC02, LC03 (both un-allocatable)	IBLPN gets allocated. (If you are using lock code priority, then LC02 should have lesser priority than LC03).
LPN01	LC03	Un-allocatable	LC02, LC03 (both un-allocatable)	IBLPN doesn’t gets allocated and the system displays anerror message “Scanned LPN has another un-allocatable lock code with a higher priority". (If you are using lock code priority and LC02 have greater priority than LC03).

Restricting QC Rejected inventory to Mix with Other Inventories

The system avoids mixing of QC Rejected Inventory with the good inventory. You can refer the following transactions and cases where the system restricts the mixing of inventories.

Restricting Split IBLPN and IB Sort During QC Complete Transaction

You can split and sort similar QC Rejected inventory via the **Split IBLPN** (rf.inbound.cwrfsplitcntr) transaction and thus restricting splitting of QC Rejected inventory into non-rejected LPN when performing the split transaction.

When performing Split IBLPN (rf.inbound.cwrfsplitcntr) or IB Sort (rf.inbound.cwrfibsortlpn) transaction, the system behaves in the following manner:

Source LPN	Destination LPN	Behavior
QC rejected inventory	With New LPN	Inventory splits or merges from the source LPN and moved to the destination LPN. So, the lock code and QC status will be transferred to the destination LPN.
QC rejected inventory	An existing QC rejected LPN	Inventory splits or merges from the source and moved to the destination LPN having the same or different lock code.

Source LPN	Destination LPN	Behavior
		Note: When the **Required Validation** parameter is set to **All**, and if the source LPN has an un-allocatable lock code present, the same lock code should be matched with the destination LPN as well. Otherwise, the system displays an error message "Lock code mismatch". You can perform split transactions when the source and destination IBLPN has different lock codes and the Required Validation parameter is set to **None**.
QC rejected inventory	Existing LPN without any reject inventory	The system displays an error message "QC Reject inventory cannot be mixed with non-reject inventory' should be displayed".
Existing LPN without any reject inventory	QC Reject LPN	The system displays an error message "QC Reject inventory cannot be mixed with non-reject inventory' should be displayed".

Note: It is recommended to use Container QC status as the sort criteria to sort the QC rejected IBLPNs. Otherwise, you are required to scan a different Sort Zone to sort the QC rejected LPNs if the sorting zone already has mainstream inventories.

Restricting Create LPNs from Active Location

The system allows you to scan an existing IBLPN (if the shipment associated with the IBLPN is verified), when you create LPNs from an active location using Create LPN.

If you scan an existing IBLPN that is QC Rejected and in Received status, the system displays an error message "Invalid LPN status, LPN is QC rejected".

This applies when,

- LPNs are created with Inventories out of active location.
- LPNs are associated with a verified shipment.

Restricting QC Rejected LPNs During Palletization

The system prevents combining of QC Rejected inventory with regular inventory on the pallet. The system displays an error message "Pallet cannot have a mix of QC rejected and non-rejected inventory" in the following conditions on the mentioned transactions:

Palletization (rf.inbound.cwrfpalletizeplt) **transaction:**

When you scan an existing pallet during palletization containing QC rejected LPNs, and you scan a regular LPN.

putaway (rf.inbound.cwrfputaway) **transaction:**

When **prompt-dest-pallet** parameter is configured to **yes** and

- You scan a QC rejected LPN for putaway and pallet contains good LPN.
- You scan a regular LPN for putaway and pallet contains QC rejected LPN.

Locate LPN/pallet (rf.inbound.cwrflocatelpnpallet) **transaction:**

When **prompt-dest-pallet** parameter is configured to **yes** and

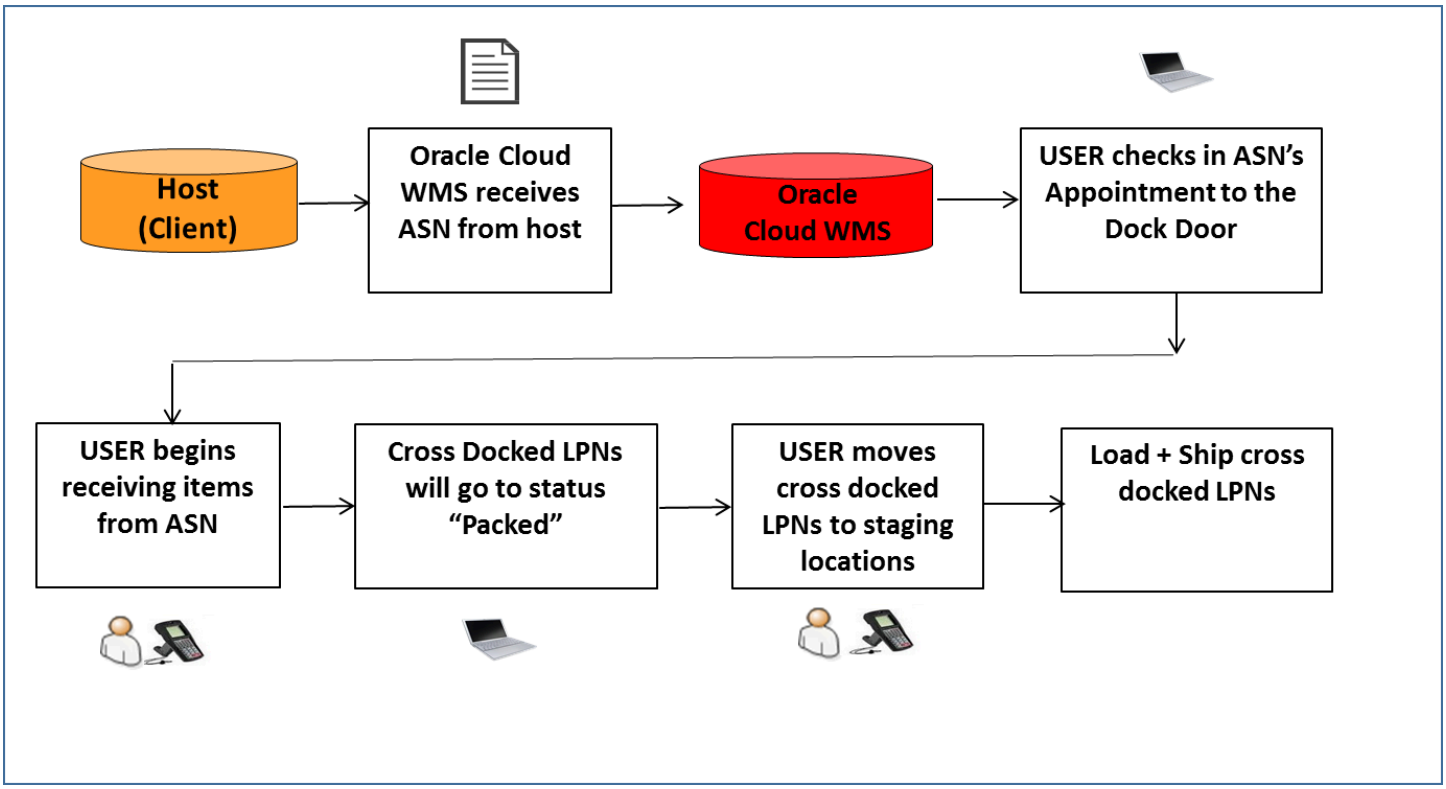
- You scan a QC rejected LPN to locate and pallet contains good LPN.
- You scan a regular LPN to locate and pallet contains QC rejected LPN.

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:

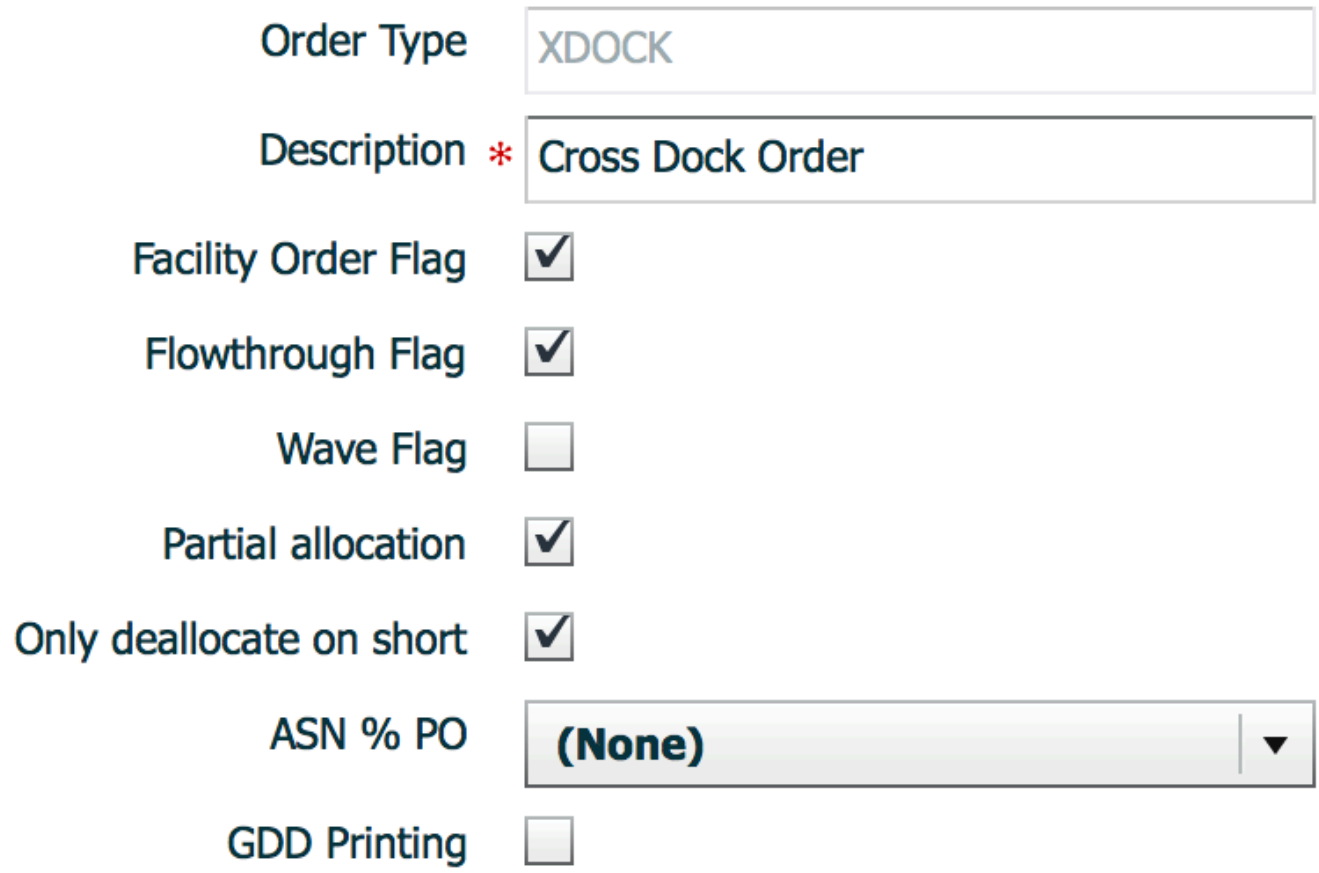
- The order must have the appropriate order type configured;
- The ordered SKU and quantity must exactly match the contents of the LPN being received.

- 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.



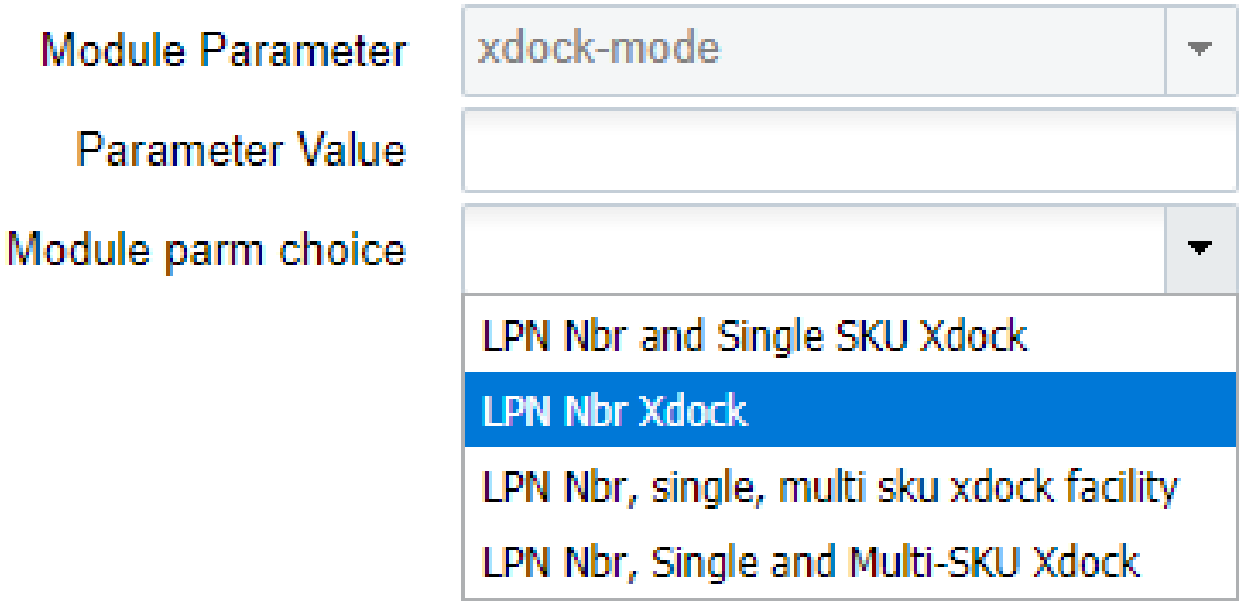
2. Click “Save”.

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

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

1. Go to “Screen Configuration”.
2. Click on “Generate Screens” and select one of the following:
   - “Recv {lpn} Load” if receiving via Loads.
   - “Recv {lpn} Shipment” if receiving via ASNs.
3. Press “Save” when you have finished.
4. Once the Mobile 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.



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”.

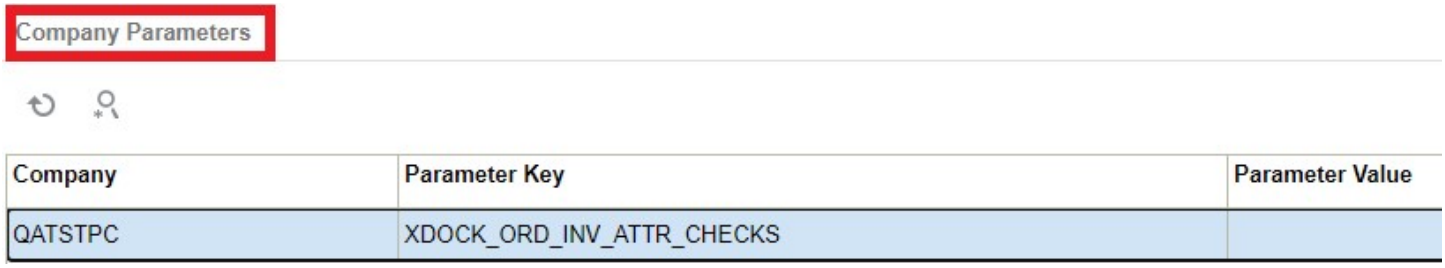
Note: Cross-dock functionality is supported through the below Mobile transcation screens based on the configuration of the **xdock-mode** screen parameter.

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

Company Parameter Configuration impacting Cross-Dock Functionality

Company Parameter	Valid Values	Functionality	Additional Comments
XDOCK_ORD_INV_ATTR_CHECKS	• Blank(Not configured) • EXACT	Controls if LPNs allocated through cross-dock should have inventory attributes matching that on order details. • 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

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



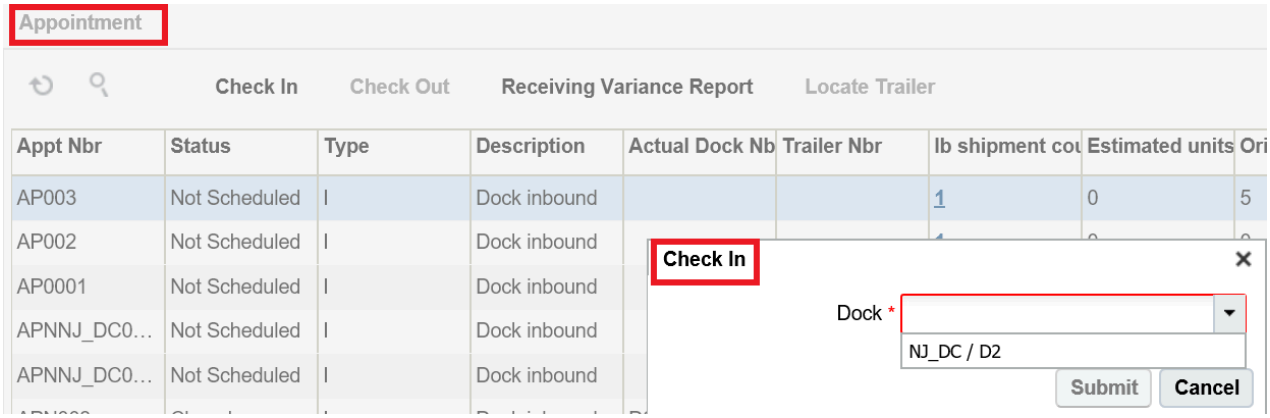
Allocate a Multi-SKU LPN to more than one Order for the Same Destination

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."

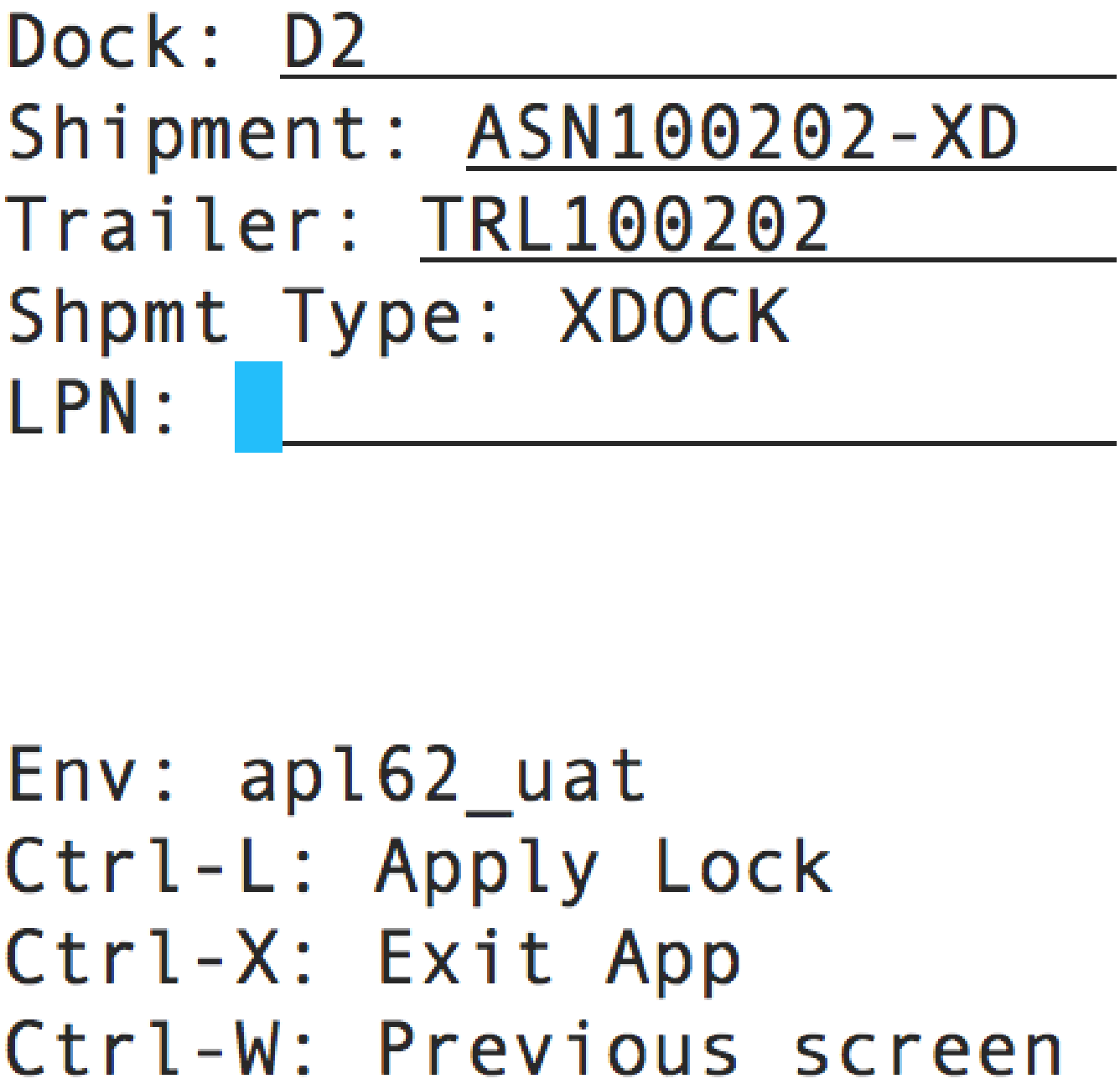
From the **Company Parameters** UI, search for the **MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY** parameter key. Click **Edit** to set the parameter value.

Executing Cross-Dock

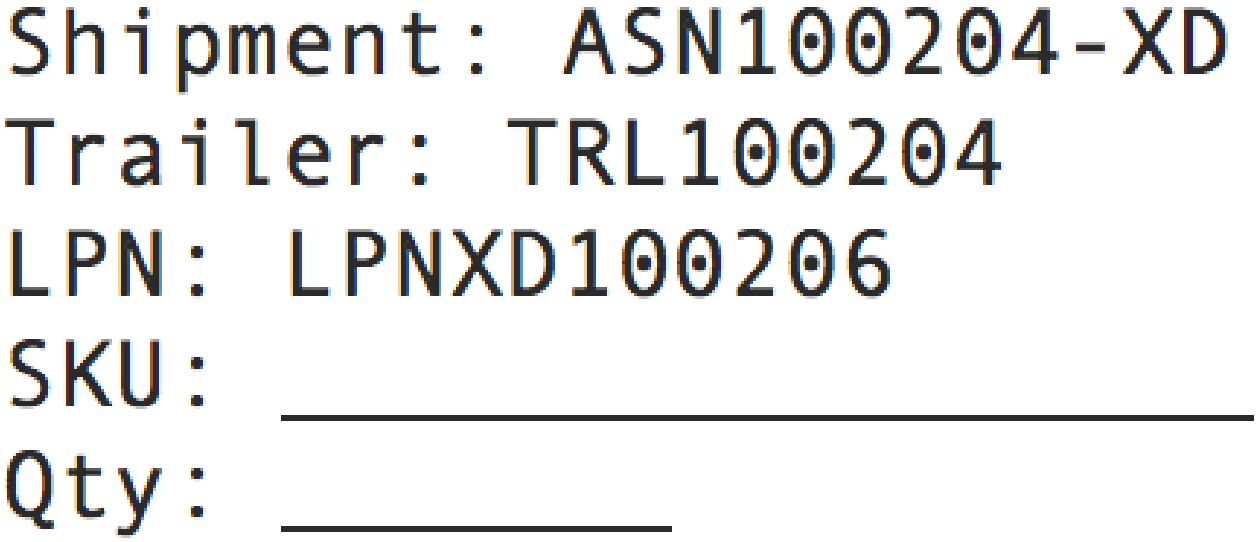
1. Before the ASN can be received, it must be checked into a dock door.
   a. If you are using appointments, go to the “Appointment” screen, select the appointment, select a dock door from the drop-down, and click “Check In”.
   b. If appointments are not used, go to the “Inbound Loads” screen, select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



2. After the ASN is checked in, you may now receive merchandise with a handheld device. Go to the “Receive ASN XDock” 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.



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 system will then prompt the user for the SKU and quantity.



   Enter the Item Code and quantity. Press Ctrl-E to close the LPN.
4. If everything was done correctly, the system 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					

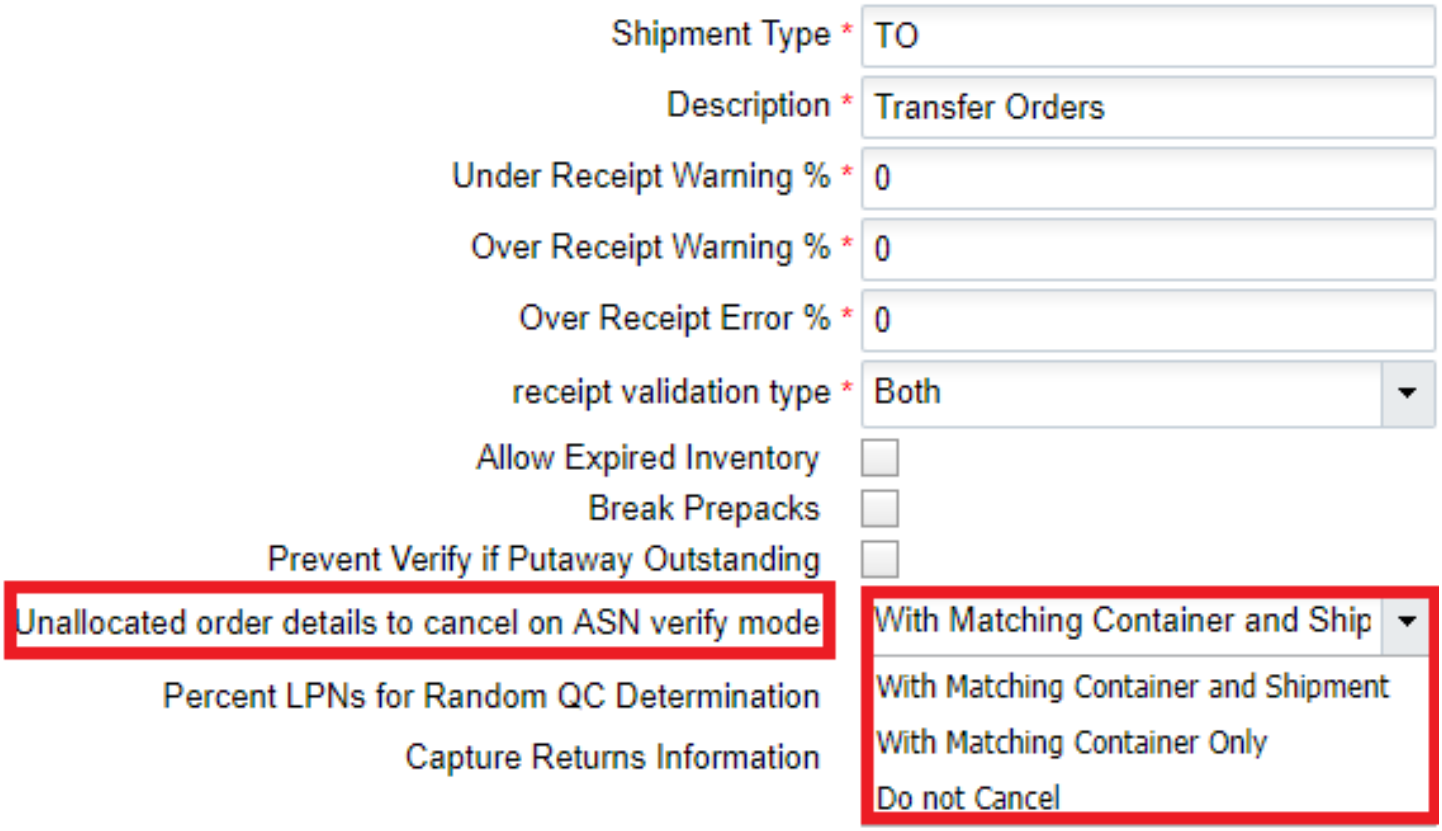
When creating the ASN file for cross-dock, three fields are required in order for this process to work:

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 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:



- **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.

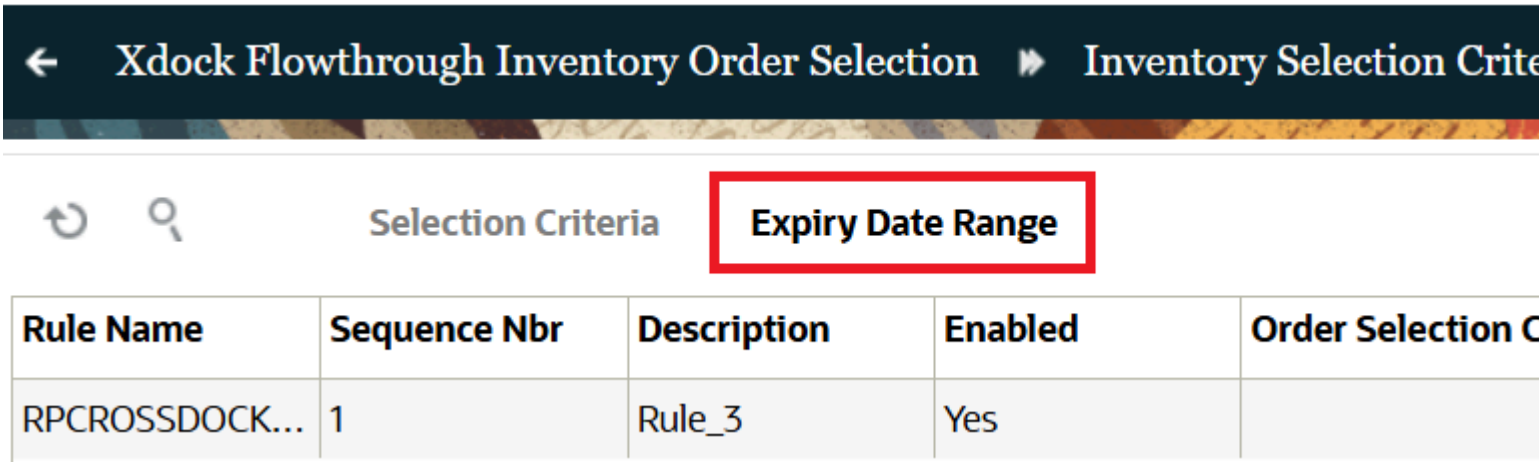
Honor Expiry Date Range Rules for Cross Dock

Warehouses that handle perishable or date-sensitive inventory must ensure that products ship within an acceptable expiry window. If cross-dock processing does not consider expiry rules, users may allocate inventory that is too close to expiry or does not meet customer shelf-life requirements.

WMS considers Expiry Date Range rules during cross-dock processing across receiving, putaway, Distribute LPN, and Receiving API flows. This helps customers improve product freshness, reduce returns, and apply consistent shelf-life controls before inventory is allocated to outbound orders.

Expiry Date Range In Cross-dock Flowthrough Rules

Use the **Expiry Date Range** action in the Crossdock Flowthrough Rules UI to configure expiry date range criteria for cross-dock eligibility.



When users select this action, WMS opens the Expiry Date Range UI from Wave Template. Users can select an Expiry Date Range rule from the drop-down field that lists the configured expiry date range rules. This setup helps users define which expiry-tracked inventory is eligible for cross-dock. All you need to is:

- Configure expiry date range criteria directly from Crossdock Flowthrough Rules.
- Select an Expiry Date Range rule during Create, Copy, and Edit actions.
- Access to this action is controlled by the permission: **Crossdock Flowthrough Rule / Can configure selection criteria** rules. Ensure that the non-admin users need the permission enabled.

Honoring Expiry Date Range For Cross-Dock

WMS honors Expiry Date Range rules for cross-dock in these flows:

- Receive by Shipment
- Receive by Load
- Receiving API
- Putaway
- Distribute LPN

When **inventory-orderselection-rule** is configured, WMS evaluates incoming inventory against the selected Crossdock Flowthrough Rule. WMS considers Inventory Selection Criteria, Expiry Date Range, Order Selection Criteria, and Order Sequence Rule together.

If inventory meets the expiry rule and an eligible order exists, WMS cross-docks the inventory. If inventory does not meet the expiry rule, WMS receives the inventory without cross-docking.

Note:

- If the rule is blank, WMS keeps the existing cross-dock behavior.
- If the configured rule is invalid or disabled, WMS stops the rule-based cross-dock flow and displays a warning.
- Pallet cross-dock behavior is not changed when Pallet Handling is set to **LPN or Pallet Receiving**.

RECEIVING API

The Receiving API supports Expiry Date Range validation during cross-dock. This gives API-based receiving flows the same expiry control as mobile receiving flows.

Key points:

- API receiving can use the configured Crossdock Flowthrough Rule.
- WMS validates incoming inventory against expiry date range, inventory criteria, order criteria, and order sequence rule.
- If inventory qualifies, WMS cross-docks it to an eligible order.
- If inventory does not qualify, WMS receives it without cross-docking.
- If no eligible order exists, WMS returns the standard cross-dock error.

PUTAWAY

Putaway considers Expiry Date Range rules when cross-dock is triggered during putaway.

WMS applies the configured Crossdock Flowthrough Rule during putaway cross-dock. Inventory must meet the expiry date range and other configured rule criteria before WMS cross-docks it.

If inventory does not qualify, WMS continues with the normal putaway or receiving flow. If the rule is blank, WMS keeps the existing putaway cross-dock behavior.

DISTRIBUTE LPN

Distribute LPN honors Expiry Date Range rules when cross-dock is triggered from the distribution flow.

Key points:

- WMS checks the configured expiry date range before cross-docking distributed inventory.
- WMS evaluates expiry date range with inventory selection, order selection, and order sequence rules.
- If inventory qualifies and an eligible order exists, WMS cross-docks it.
- If inventory does not qualify, WMS receives it without cross-docking.
- If the rule is blank, WMS keeps the existing Distribute LPN cross-dock behavior.

Configure Rules for Order Prioritization during Cross Dock

In Receiving, Putaway, and distribute LPN, for scenarios where there are multiple orders eligible for cross-dock, we've added a a configurable rule where users can configure and filter the eligible orders to be selected based on a certain sequence for multiple orders. This sequence-based option improves efficiency, optimizes resources, and allows businesses to scale and adapt their operations to changing demands and seasons.

Cross Dock Flowthrough Rules UI

When there are multiple orders, having configurable rules will help in determining which orders need to be sequenced first for trying to allocate orders during cross dock. The **Cross-dock Flowthrough Inventory Order Selection Rule** UI allows you to create and save cross-dock flowthrough rules. You can also search for existing cross-dock flowthrough rules.

From this UI, you can click on the Order Selection Criteria and Order Sequence Rule buttons to configure and view Order Selection Criteria and Order Sequence Rules. Currently, this enhancement is supported only during cross-dock.

Inventory Selection Criteria

From the **Cross-dock Flowthrough Inventory Order Selection Rule UI,** you can click the **Details** button to view the **Inventory Selection Criteria** UI. From this UI, you can click the **Selection Criteria** button to configure Inventory Selection Criteria. After you **click Selection Criteria**, you will see SQL operator, Column name and Column value options You can insert Basic and Complex operations and save operations for the selected rules. Selection Criteria options include Item, Inventory, Container, and Shipment selections.

Selection Criteria

While performing crossdock, you can configure the function from Inventory Selection, Selection Criteria, and inventory gets selected based on the functions configured (for example, for Multi-SKU or Multi-UOM Inventory.)

Selection Criteria

We've added the following functions in Inventory Selection - Selection Criteria:

- Function - LPN is Multi SKU Inventory
- Function - LPN is Multi UOM Inventory
- Function - Has Serial Number Count mismatch
- Function - Inventory Case Qty matches Item
- Function - Inventory Pack Qty matches Item
- Function - Single SKU LPN Inventory Qty matches Max LPN Qty on Item Facility

FOR EXAMPLE:

In the following scenario, LPN-01 is eligible for Xdock, as it is a Multi-SKU Inventory:

Example 1:

Rule Name	Inventory Selection Criteria	Value
Rule-1	Function - LPN is Multi SKU Inventory	Yes

IBLPN:

LPN Number	Item	Shipped Quantity
LPN-01	SKU-A	10
LPN-01	SKU-B	10

Order Selection Criteria Action Button

From the **Cross-dock Flowthrough Inventory Order Selection** UI, you can click the **Order Selection Criteria** button to create and save **Order Selection Criteria Rules**. You can search using the description and enabled flag. You can perform Create/Copy/Edit/Delete actions and also Import/Export Configurations from one facility to another facility.

Order Sequence Rule Action Button

The **Order Sequence Rule** Action Button allows you to configure the orders to be selected based on a certain sequence, from the **Cross-dock Flowthrough Inventory Order Selection Rule** UI. This is useful for you to manage the sequence and more easily manage multiple eligible orders. You can also click the **Details** button to view the details of each Order Sequence Rule you create.

Example

Refer to the following example of an Order Sequence Rule:

Crossdock Flowthrough Rules:

Rule Name	Inventory Selection Criteria	Order Selection Criteria	Order Sequence Rule
Rule-1	Item = SKU-A	Order Hdr Priority = 1	Order Hdr Nbr = Descending

Order:

Order Nbr	Item	Qty	Priority
ORD-01	SKU-A	10	1
ORD-02	SKU-A	10	1
ORD-03	SKU-B	10	1
ORD-04	SKU-A	10	2

Shipment:

Shipment Nbr	Item	Shipped Qty
SHPMNT-01	SKU-A	10
SHPMNT-02	SKU-A	10

- In this scenario based on the Crossdock Flowthrough Rules,
  - When SHPMNT-01 is received it should get Xdock to ORD-2.
  - When SHPMNT-02 is received it should get Xdock to ORD-1.

Note: There is no change in the default crossdock functionality. This enhancement allows user to configure crossdock rules based on their requirement and then perform operation. If the order has required serial number passed then, the system will not perform cross dock for those orders even though those orders are eligible based on rules.

Note: By default Roles with users with role ADMINISTRATOR or APP-ADMIN will have this access.

Cross Dock Based on Order, Inventory, and Sequencing Selection

The **'inventory-orderselection-rule'** screen parameter allows you to configure Cross-dock Flowthrough Rules based on Order Selection, Inventory Selection, and Order Sequencing criteria.

The following table describes the different ways that you can configure Cross-dock Flowthrough Rules when the 'inventory-orderselection-rule' parameter is enabled:

Selection Criteria Option	Description
Order Selection Criteria	Selection of an order that is eligible for Xdock.
Order Sequence Rule	When the Xdock Orders get selected, this rule determines the sequence the Xdock should happen to the selected Orders.
Inventory Selection Criteria	This criteria decides which incoming inventories are eligible for Xdock and which inventories should not get Xdock / get received. If the inventory selection matches, then the system will perform Xdock if there are any eligible orders.

You can configure Crossdock Flowthrough rules for the following Mobile transactions:

- Receive by Shipment
- Putaway
- Receive by Load
- Receive by Shipment
- Putaway
- Receive by Load

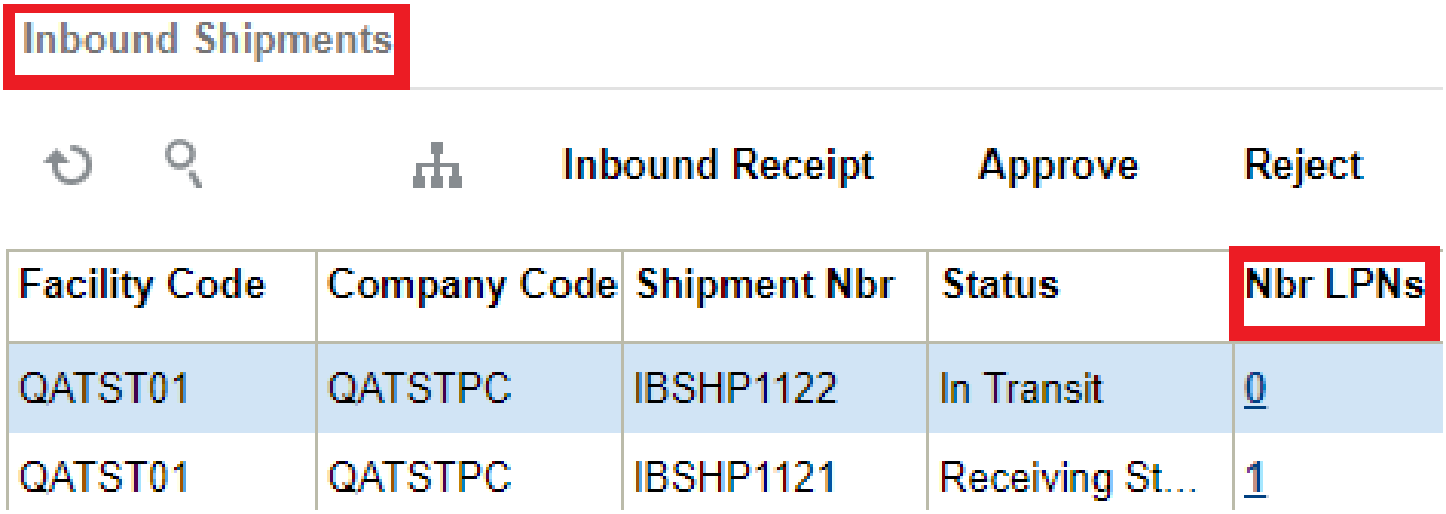
Steps to Enable

To Create, Edit, Copy, Delete, and Configure Crossdock Flowthrough Rules, enable the following permissions in the **Group Permission** UI:

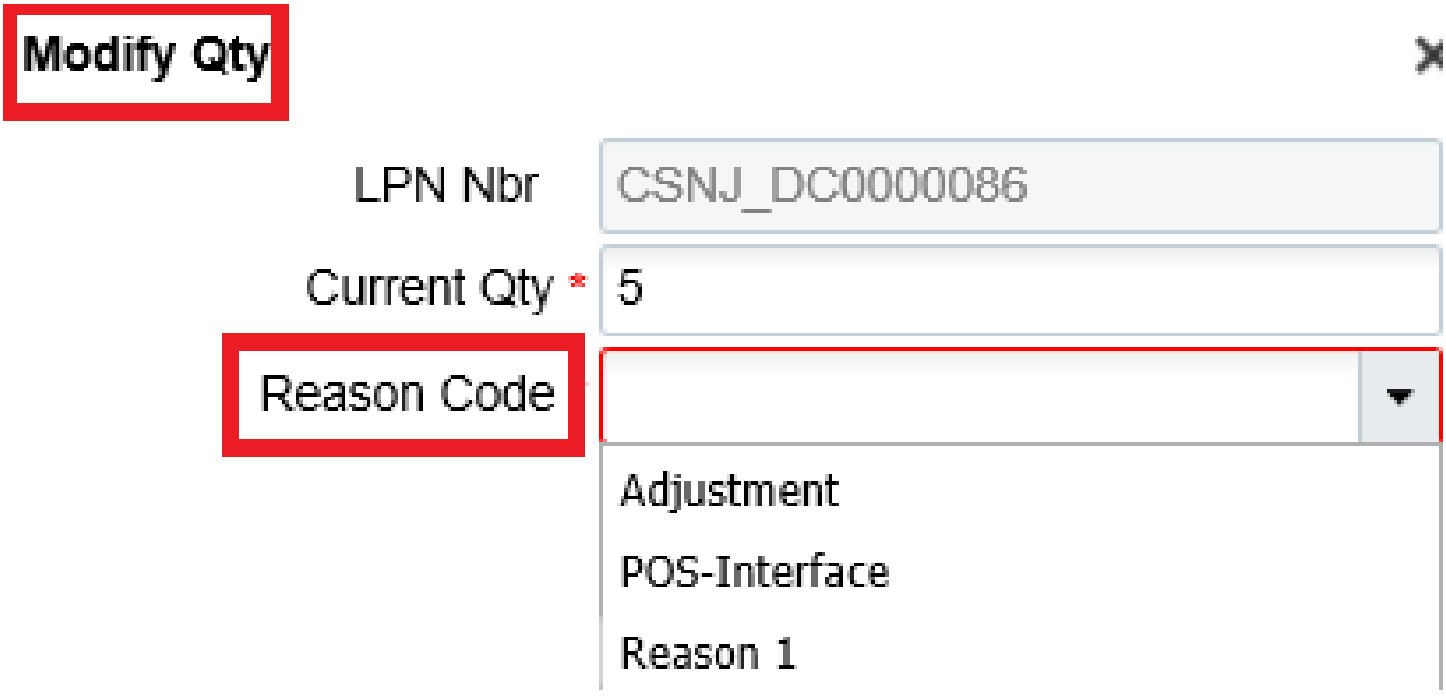
- Crossdock Flowthrough Rules/Can create Crossdock Flowthrough Rule
- Crossdock Flowthrough Rules/Can edit Crossdock Flowthrough Rule
- Crossdock Flowthrough Rules/Can delete Crossdock Flowthrough Rule
- Crossdock Flowthrough Rules/Can configure selection criteria rules (This controls access to Detail button - Inventory Selection Criteria, Order Selection Criteria, Order Sequence Rule buttons)

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).



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).



Note: You can update current quantity of partly allocated IBLPNs, provided it does not fall below the currently allocated quantity.

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.

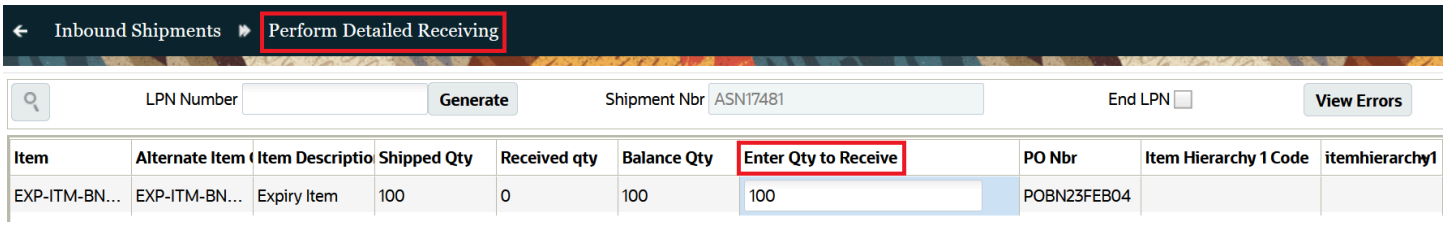
Job Number *	
Job Type *	Generate Verify Shipment Alert
Schedule Name *	
Enabled	
Schedule Type *	
Every *	
Period *	
Minute *	
Hour *	
Day Of Week *	
Day Of Month *	
Month Of Year *	
Job Parameters	*Username* *Number of days* *To email*

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.



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 Mobile transaction.

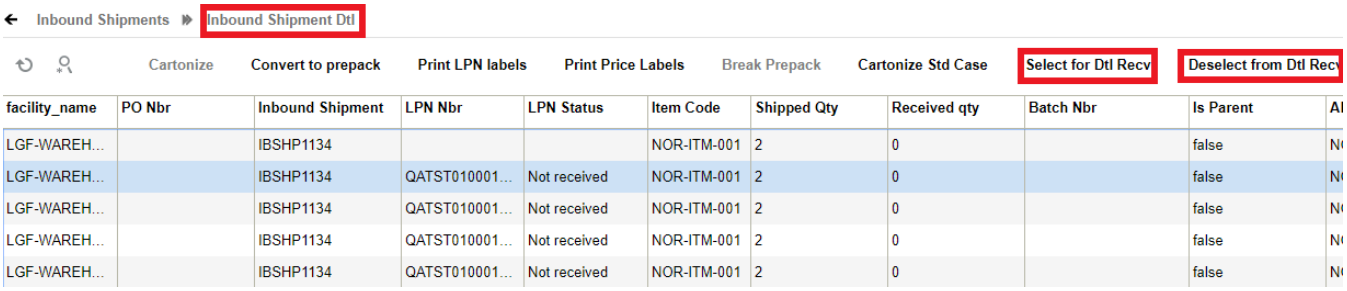
Detailed Receiving for LPNs in a Fully Cartonized Shipment

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.

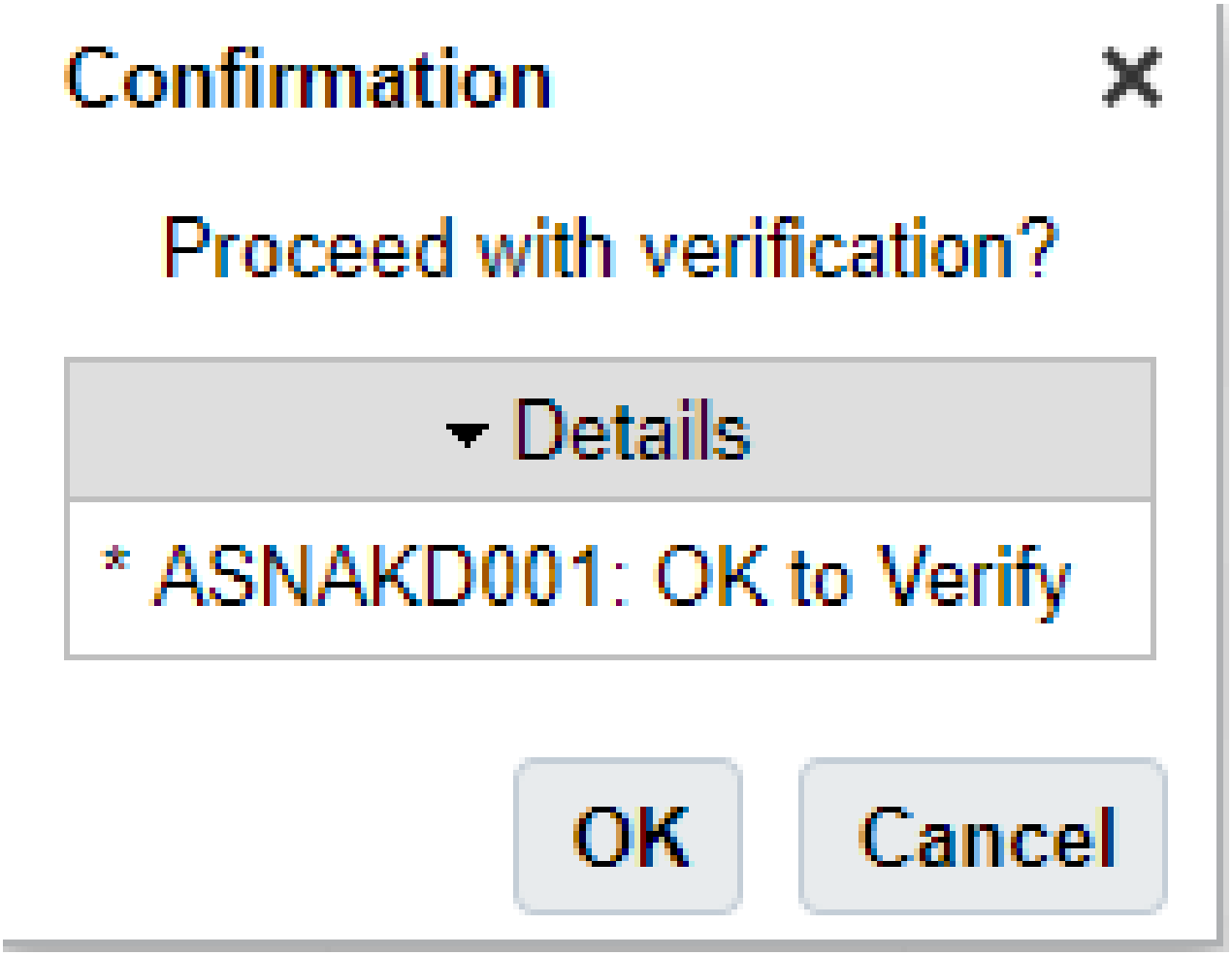
2. In the Inbound Shipment Detail, click the "Deselect for Dtl Recv" button to set Detail Receive Flag to False for all selected LPNs.



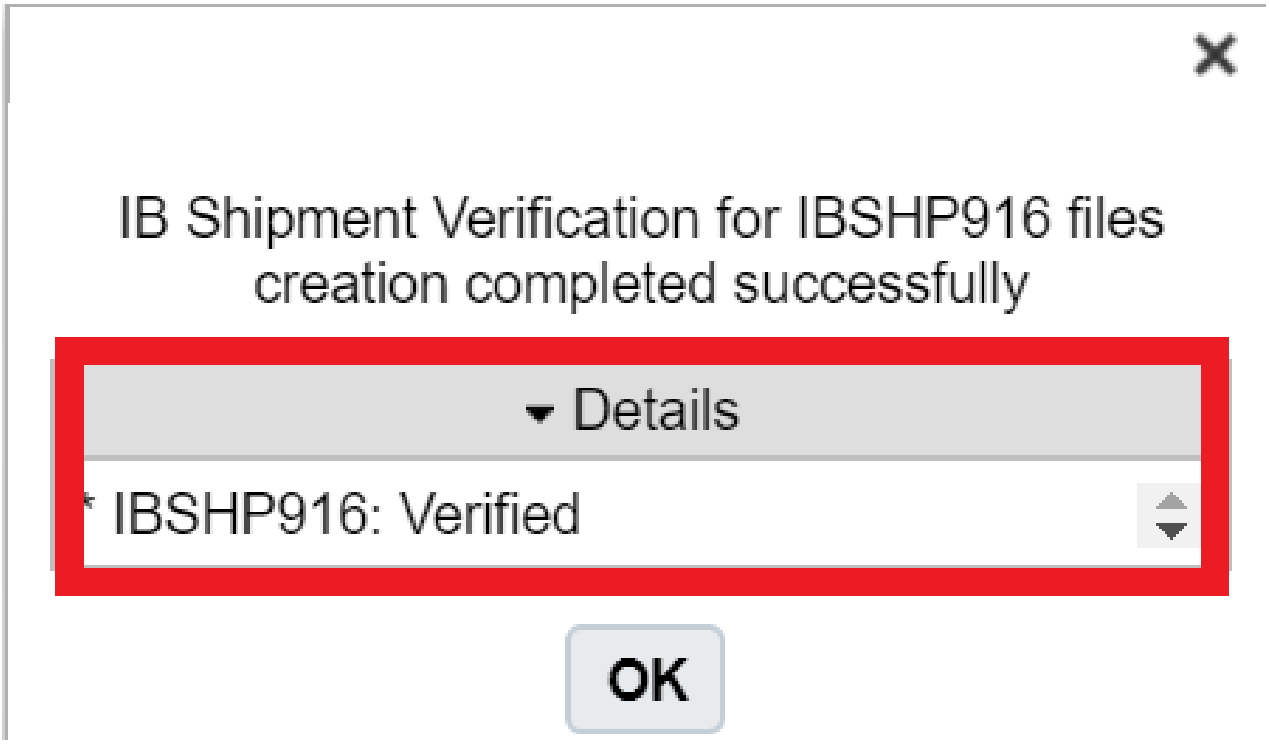
facility_name	PO Nbr	Inbound Shipment	LPN Nbr	LPN Status	Item Code	Shipped Qty	Received qty	Batch Nbr	Is Parent	Al
LGF-WAREH...		IBSHP1134			NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001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

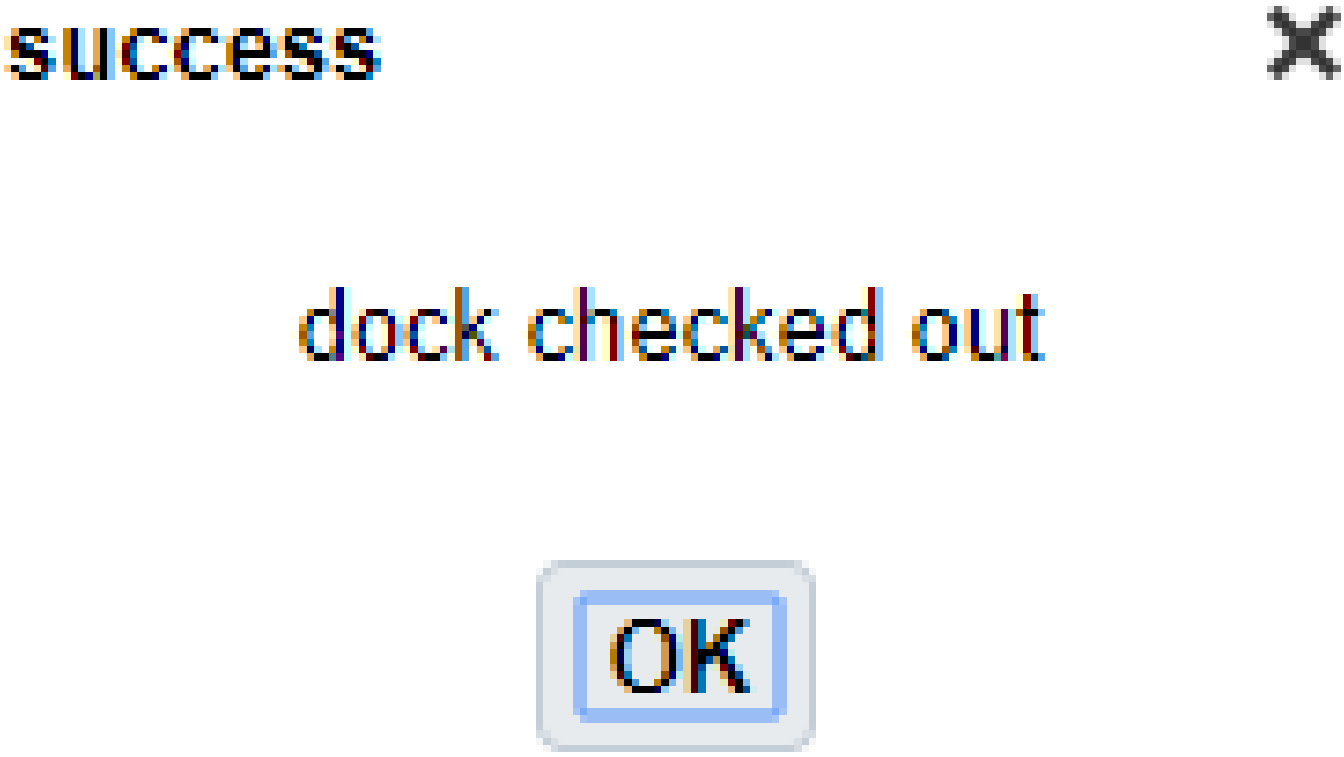


d. Oracle WMS Cloud will generate an ASN verification file – if integration is configured, Oracle WMS Cloud will drop the verification file to a shared SFTP directory (typically the ‘output’ folder).

Also, you can verify a shipment using either IB Shipment ID or IB Shipment Number via `verify_shipment` API. This API enables integration with external systems for shipment verification. For detailed API documentation, refer to the *WMS REST API Guide*.

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.



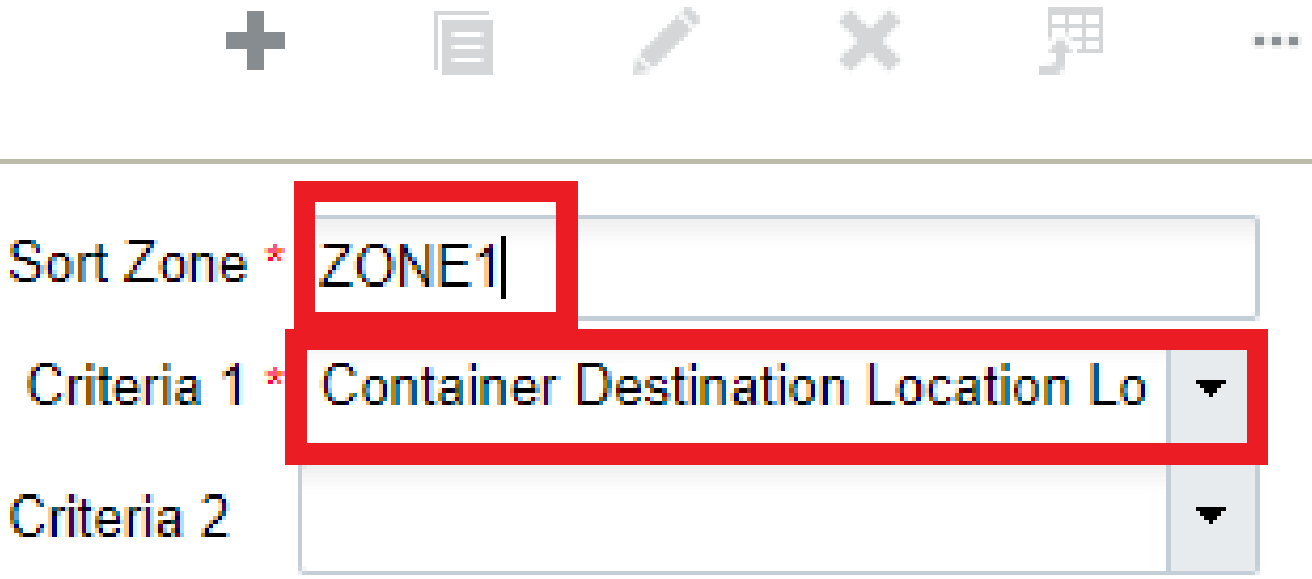
Inbound Sorting

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):

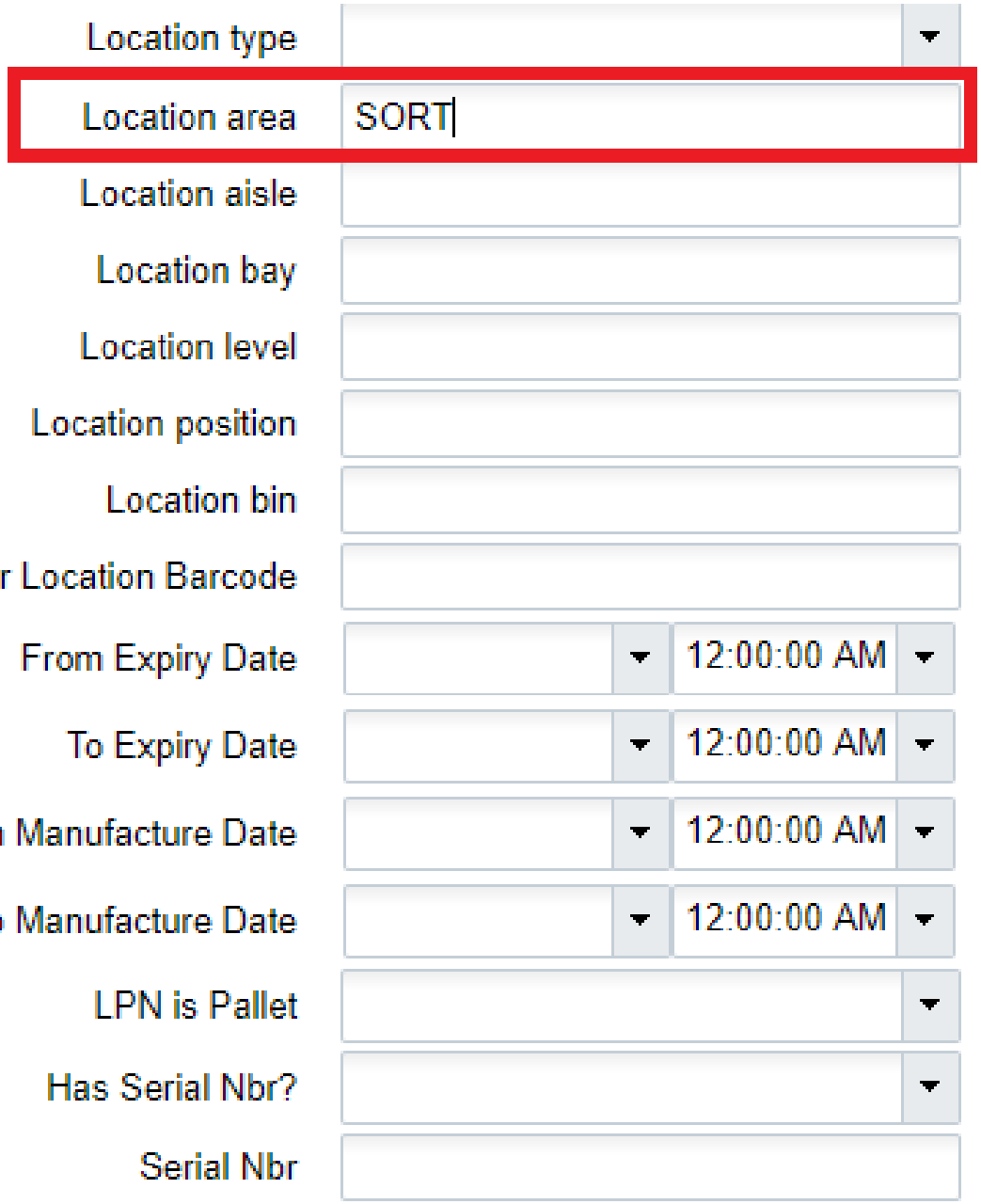
Sort Zone	Location	Pallet	Criteria Value
1	SORT-1-1-1	PLT_0527_03	WHITE
1	SORT-2-1-1		CLEAR-E4
1	SORT-3-1-1		
1	SORT-4-1-1		
1	SORT-5-1-1		
1	SORT-6-1-1		
1	SORT-7-1-1		
1	SORT-8-1-1		
1	SORT-9-1-1		
1	SORT-10-1-1		

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 Mobile Transaction), 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:

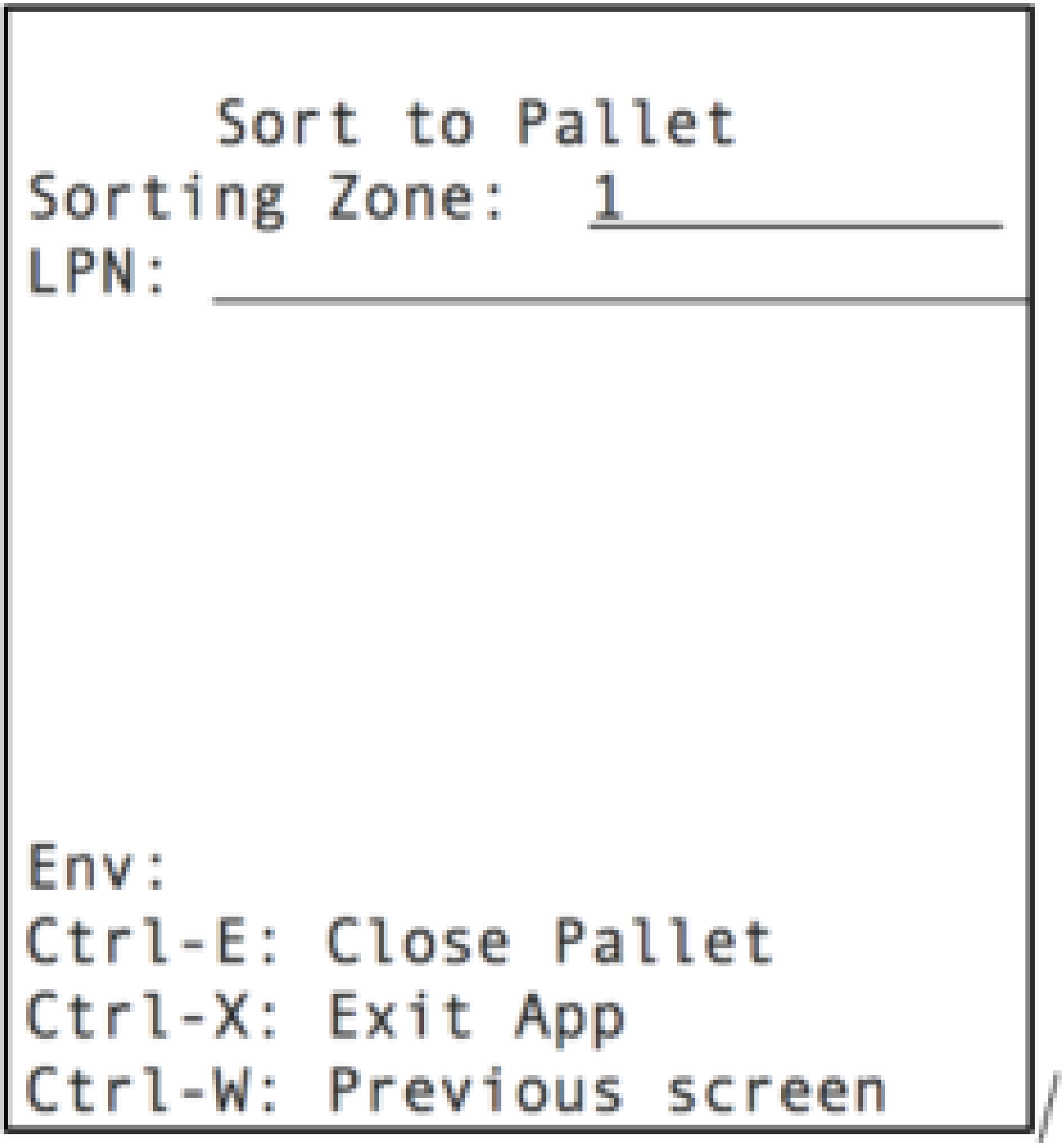


4. When an LPN (Serial Number) is scanned into a pallet, it will change to “Allocated” status. Its status will only reset to “Located” when its pallet is closed. This means that a pallet or LPN cannot be moved until its pallet is closed. The user can validate this by searching for the LPN and verifying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

Using the Sorting Mobile Module

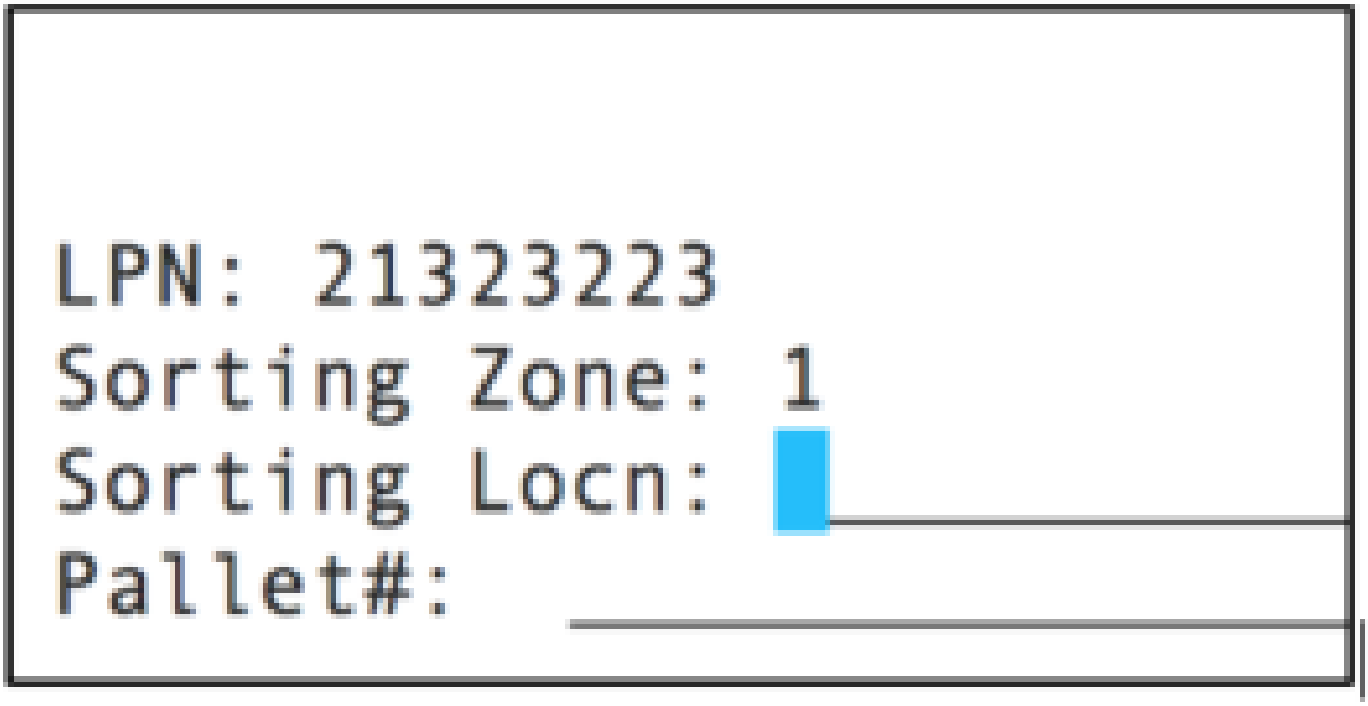
These are the steps to use the *Sort to Pallet* module:

Enter the module *Sort to Pallet.*



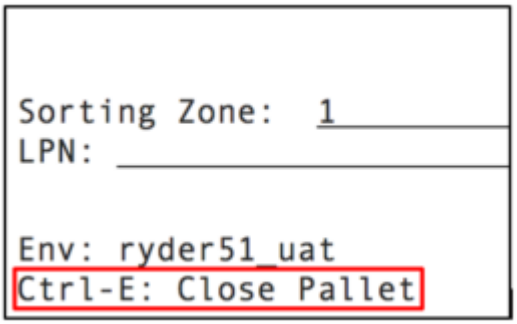
Enter the Sort Zone and scan the Item's Serial Number in the "LPN:" field.

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



If there is an active pallet with the scanned Item's Putaway Type, the system 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:



If done correctly, you are taken to the original 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.

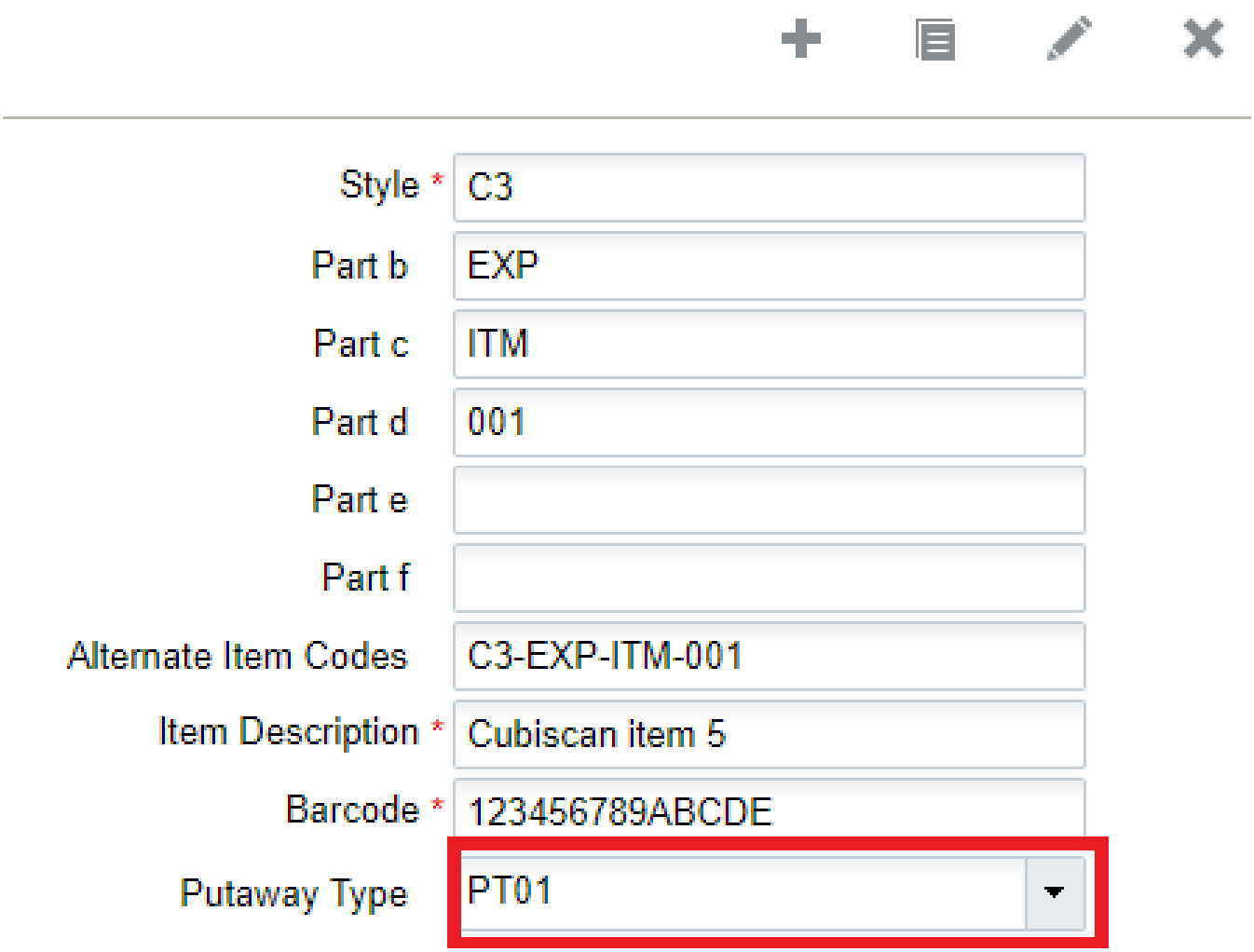
Example: Smartphones and Tablets can have Putaway Type "ELECTRONICS".

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.



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’.

Enhancements to Putaway Type Selection Rules

Putaway Rules for Pallets Based on Current Location

You can set the Putaway Type for a Pallet (LPN) as a Physical Pallet using attributes from its current location. By creating Putaway strategies on location-specific attributes, you gain flexibility in storing pallets according to operational needs.

Example:

- Pallets from locations labeled as **STORE** are directed to specific areas within the warehouse.
- Pallets from locations labeled as **FLOWTHRU** are directed to an Outbound Sorting area.

When a LPN is marked as “LPN as Physical Pallet”, you can set its Putaway Type based on attributes like:

- Current Location Area
- Aisle, Zone, and Level
- Size, Width, Height, Length
- Barcode and MHE System Code
- Bay and Location Type

Mass Updates to Putaway Type Rules

You can quickly update Putaway rules with the **Enable/Disable** feature. Sort, filter, and select multiple rules, then enable or disable them in one click. Confirm changes and receive notifications for smooth, bulk updates to your putaway rules.

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:

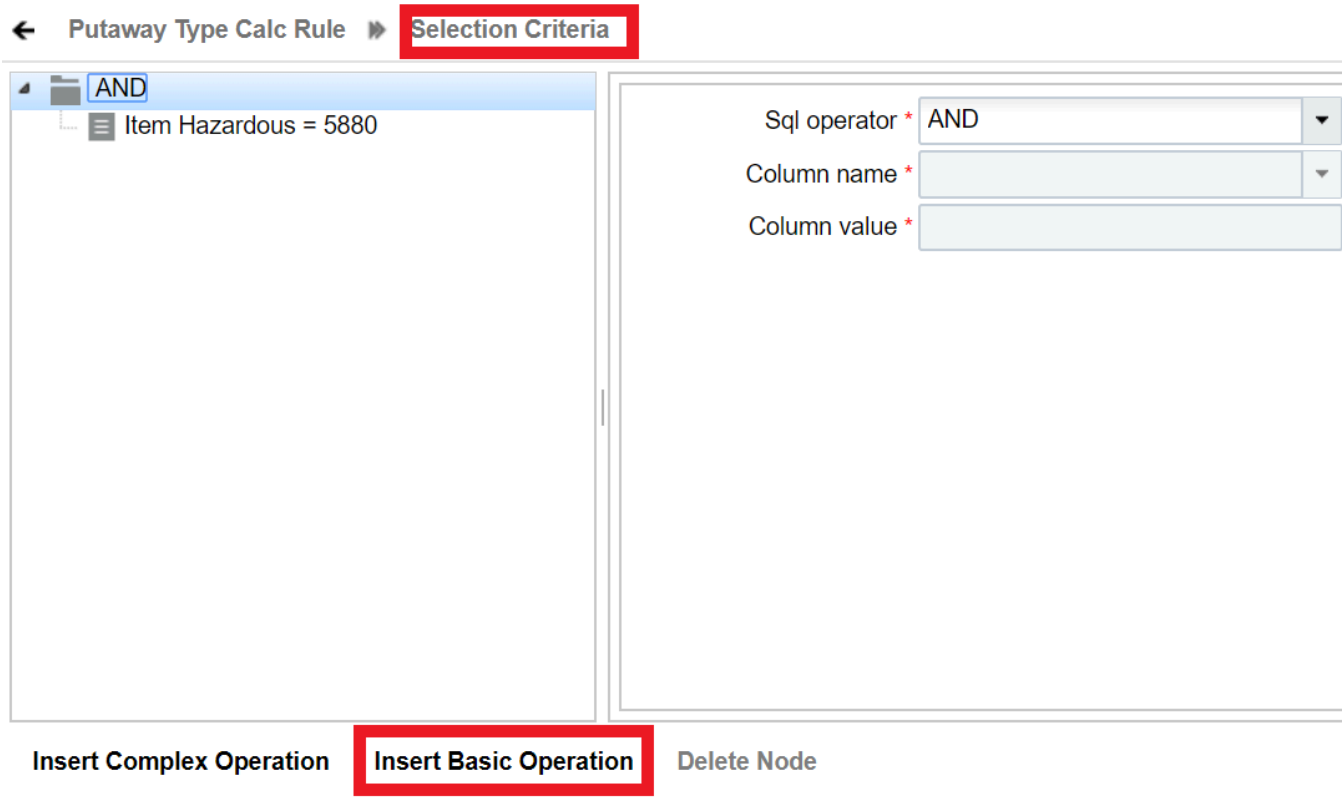
- Location A may be assigned type “BULK” for bulk pallet picking.
- Location B may be assigned type “MEDIA” for exclusively storing media items.

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



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".

Rule Based Screens and Saved Searches

Selection Criteria in Putaway Type Calculation Rule

You can access Selection Criteria in the **Putaway Type Calculation Rule** UI. (For example, Selection Criteria used in Putaway rules, task creation templates, audit rules, and so on.)

To access the selection criteria from the Putaway Type Calculation UI, click the More Actions (elipses button), then More Actions -> Selection Criteria.

SAVE VIEW AND UNDO VIEW

- **Save View:** Users can add/remove/reorder columns and save layouts for reuse.
- **Undo View:** One-click restore to the default grid configuration.

SAVED SEARCHES (WITH DEFAULT, RESET, DELETE)

Users can create and store multiple saved search definitions per screen. One saved search can be set as the Default, applied automatically on screen launch. Users can also Delete saved searches and Reset to the default search criteria.

REQUIRED SEARCH FIELD ENFORCEMENT FOR LARGE DATASETS

You must populate at least one required search field before executing a search. If none are populated, Redwood displays: “Atleast one required search field must be populated” (to match expected behavior).

This supports scenarios where required fields may be pre-populated on initial load, consistent with legacy behavior.

DEFAULT DATE_RANGE FILTERS (e.g., "30 DAYS AGO" BEHAVIOR)

For applicable migrated screens, Redwood will now pre-populate DATE_RANGE search chips with:

- From Date: 30 days ago (relative to current date)
- To Date: current facility date

Results are filtered appropriately immediately upon load/refresh. This provides faster screen load and more relevant default results on large datasets.

Steps to Enable and Configure

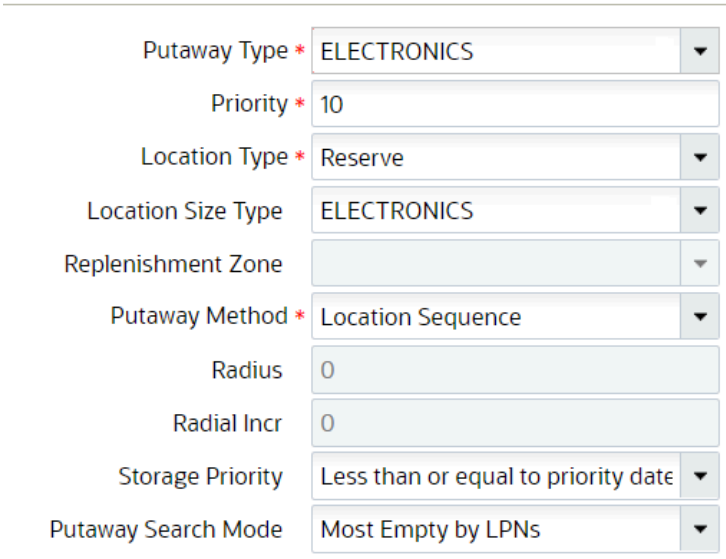
To access the selection criteria from the **Putaway Type Calculation** UI:

1. Click the **More Actions** (elipses button.)
2. Then click More Actions -> Selection Criteria.

Putaway Priorities

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

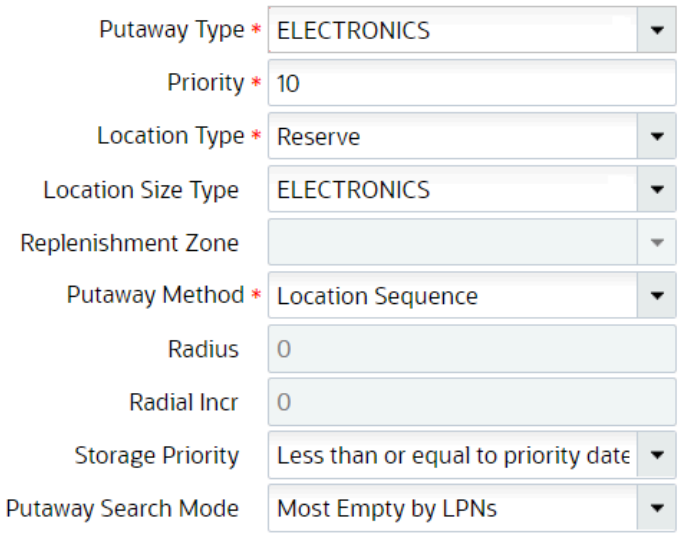
1. Go to the “Putaway Priorities” screen and click “Create”.
2. Fill out the following information to create a new Putaway Priority.



   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



The above configuration translates to the following:

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

3. Click "**Save**" .

Search for Locations with the Same Item

Search Location with matching SKU flag in the Putaway Priority View UI, once enabled on Putaway method priority, the system directs you to the location that already has a matching SKU required to be putaway. This helps you to optimize

the location with identical SKU's instead of having the same SKU spread across the different locations. This also helps to achieve a smooth picking transaction and thereby reduces accessing any further location.

Let's say, you have an IBLPN with a single SKU or pallets having IBLPN single SKU during directed putaway, all the eligible locations (satisfying capacity check), and putaway method priority. The system further narrows down and prompts the location that already has the SKU (Physical Inventory not In-transit) similar to the SKU targeted for putaway.

Steps to enable:

1. Go to **PutawayPriorityView**UI.
2. Click **Create** to create new priority. Or, select the listed **Putaway Type** > Click **edit** icon to edit the existing priority.
3. Fill in the mandatory details.
4. Check or un-check the **Search Location with matching SKU** checkbox to enable or disable the functionality.
5. Click **Save**.

ADDITIONAL KEY POINTS:

- By default, this new flag is disabled on the Putaway Method Priority UI. You need to check the flag explicitly to enable.
- This function is applicable to both Active & Reserve Locations.
- Search Location with matching SKU flag honors during Split Putaway to Active Location and Putaway Method Location Sequence/ Radial.
- On scanning an LPN, if there are multiple locations that have matching SKUs, then the system applies putaway search mode to the eligible location (that is, locations that have matching SKUs).

> **Note:** After scanning an IBLPN with multiple SKUs or pallets having an IB container containing multiple SKU, the system does not consider the Matching SKU criteria even though the flag on the Putaway method priority is enabled. If there are no locations with matching SKUs for the given putaway method priority, then the system will prompt the location based on the putaway search mode from the respective putaway method priority.

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.

Configure Weight Check During Putaway

You can evaluate container (inventory) weight with location weight during Putaway and Replenishment. The system directs you to available location to hold the incoming inventory within the defined weigh. You can search Locations by most empty (by weight) and least empty (by weight) during directed putaway.

Putaway - Weight Based Capacity Check

During directed putaway, when you scan an LPN/Pallet, the system considers weight capacity check to determine the location. Similarly, when you scan location during suggested putaway, weight-based capacity check is done against the scanned location.

> **Note:** If you implement suggested putaway, the system allows you to validate location max weight against the IBLPN/Pallet weight and considers the location to be eligible.

Direct Putaway for LPN/Pallet

You can perform capacity weight check during directed putaway for LPN/Pallet. That is, when performing directed putaway, the system directs you to location that can hold an incoming pallet into the respective location.

On scanning LPN/pallet and determining the location for putaway based on putaway method priority, the system validates location max volume with pallet volume and consider the location to be eligible.

> **Note:** You can perform volume-based capacity check on items during directed putaway of pallet.

You can search the modes with either “most empty by weight” or “least empty by weight” in the Putaway Search Mode

To setup max weight and min weight:

1. Go to the Location UI.

2. Configure the Max Weight" and "Min Weight" columns to maximum and minimum weight on location that helps you in perform capacity check during putaway and replenishment.

   Note: You can also process the location interface file with max_weight and min_weight fields. The system supports Excel and XML (Input interface and Init stage interface) file formats.

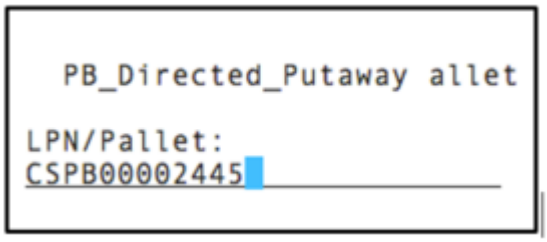
System Directed Putaway

The Mobile Transaction “Directed Putaway” is used to putaway cases/pallets to a storage/picking location. The system directs you to a specific putaway location.

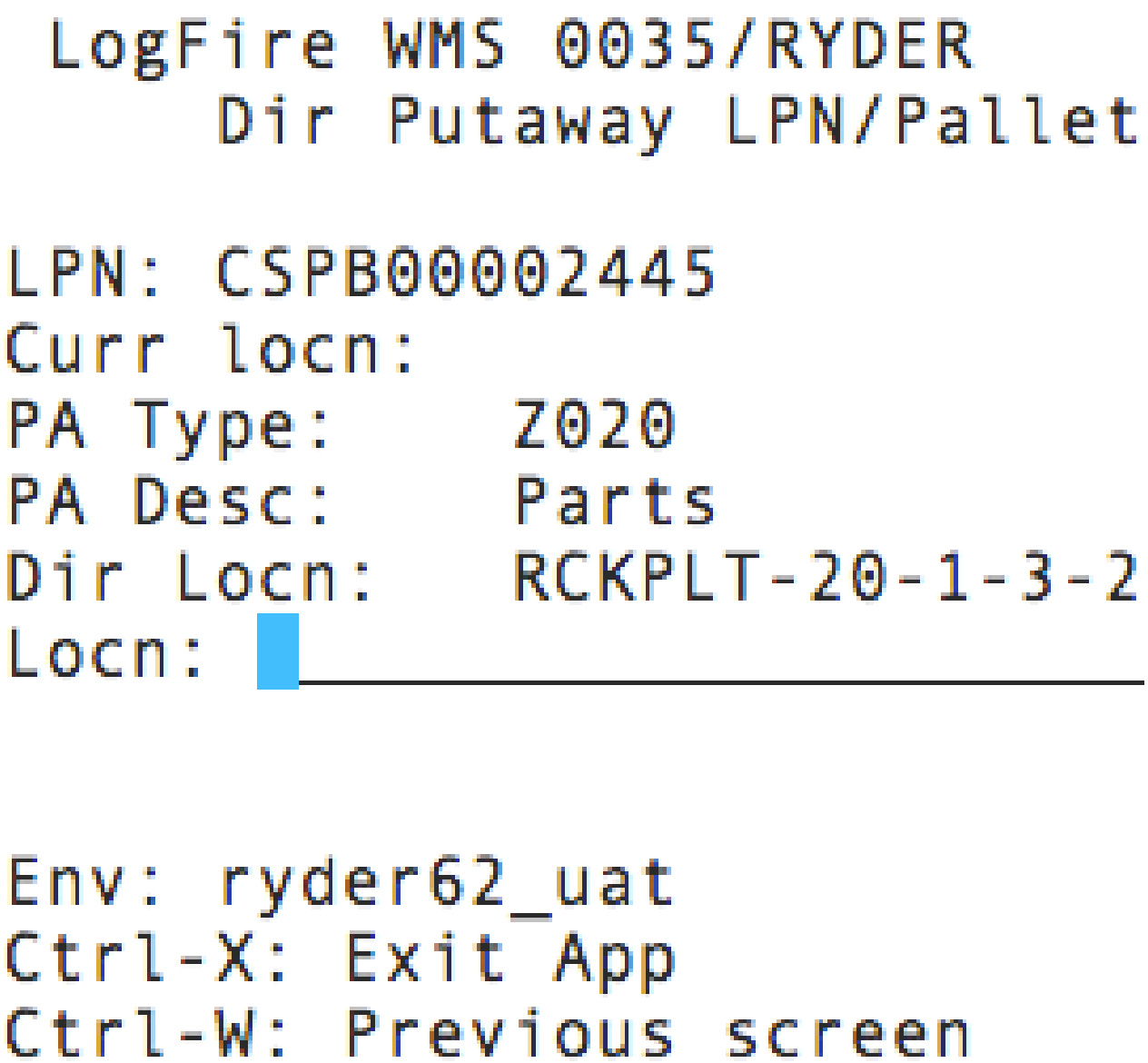
To initiate Directed Putaway:

1. Go to the transaction “Directed Putaway”.

2. Scan the LPN on the label of the pallet or case that needs to be putaway.



The screen directs you to a putaway location.

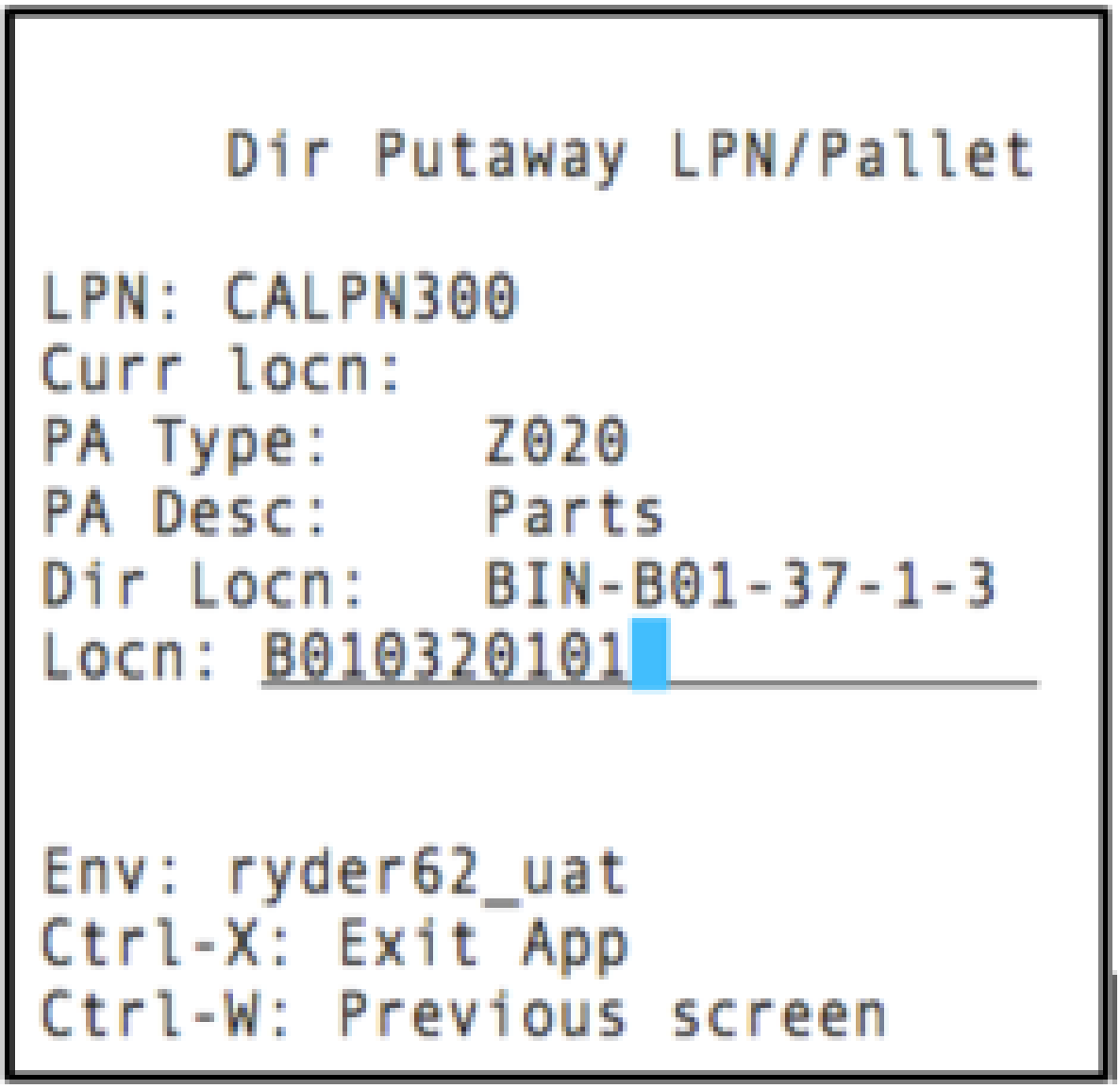


3. To complete the putaway, go to the directed location prompted and scan the location barcode.

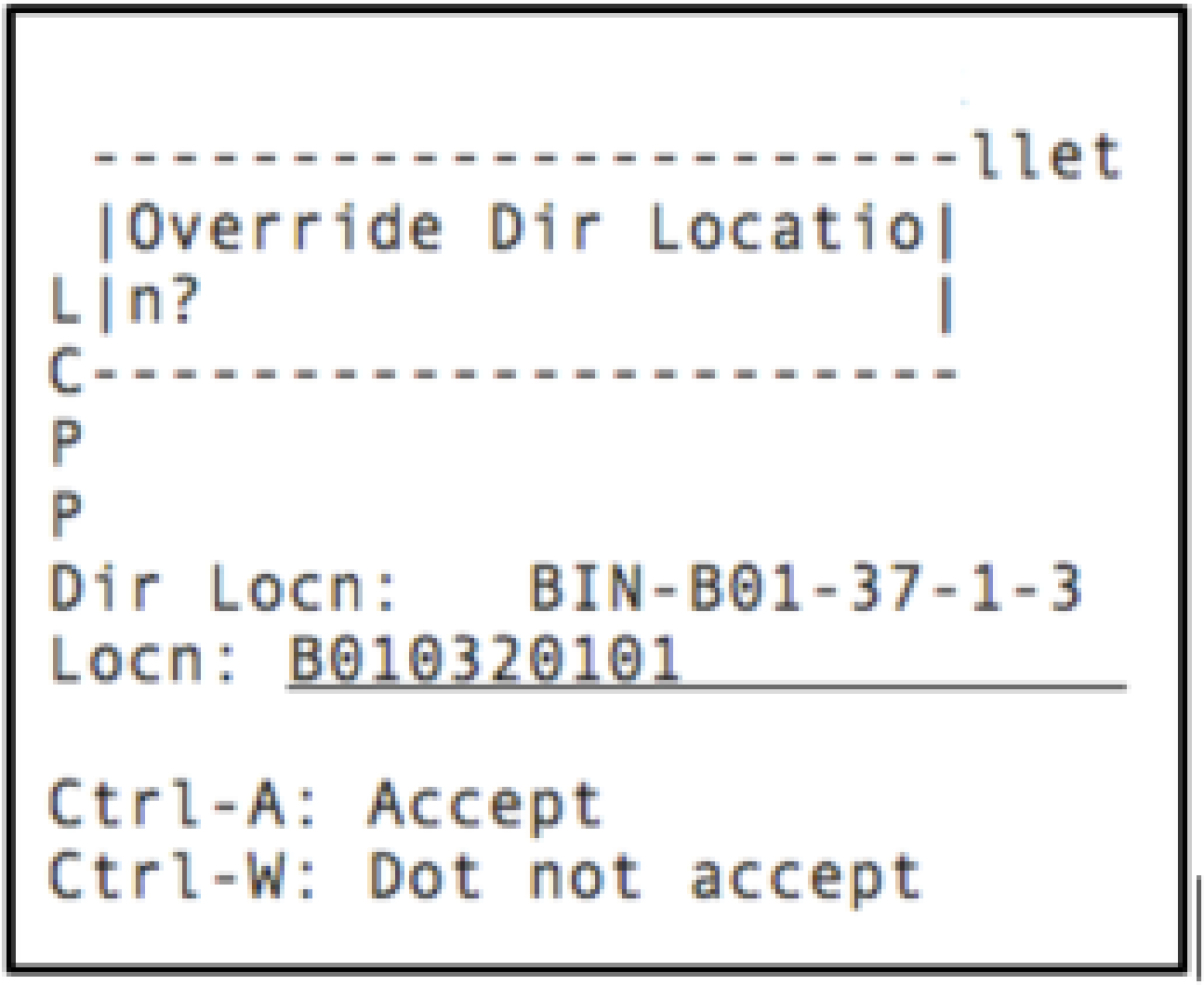
You can override the putaway location by choosing another available location in the same zone.

To override the putaway location, do the following:

1. In 'Directed Putaway', scan another available location (Locn field) in the same zone.



The system displays a pop-up message "Override Dir Location?"



2. To accept the overriding of the location prompted, press Ctrl-A.

Note:

- If you override with a location that is full or insufficient to putaway the LPN, the system displays an error message “Insufficient Capacity”.
- You can also get a list of alternate locations by entering CTRL-K. Once you enter CTRL-K, the system will show the next location based on putaway method priority.

Direct Putaway Improvements to Matching SKU Logic for Multi-SKU LPNs

Directed Putaway process supports logic for Multi-SKU License Plate Numbers (LPNs).

When you enable the "Search Location with Matching SKU" option in the Putaway Priority UI, following flow is set on priority, where:

- The system first searches for locations with a matching SKU for the item with the largest quantity on the LPN.
- - If multiple matching locations are found, then the system uses the location putaway sequence to prioritize.
  - If no matching SKU is found, then the system moves to the next most-represented SKU on the LPN.
- If no locations match any SKU from the LPN, then the system searches for available locations without a matching SKU.

Note: Radial Putaway logic requires a permanent location and does not use matching SKU functionality.

Matching SKU Search to Split Putaway of Multi-SKU IBLPN

To maximize efficiency, operations may store identical SKUs in the same location whenever possible. However, when the same SKU is stored across multiple areas, it can lead to unnecessary travel time during picking, counting, or replenishment. By placing similar SKUs together, you reduce picker travel time, speed up replenishment and cycle counting, and improve organization and visibility of stock on the floor.

During **Split Putaway of Multi-SKU IBLPNs**, if the Putaway Type is configured with “Search Location with Matching SKU” enabled in the Putaway Method Priority screen, the system now evaluates each item in the LPN individually to determine the most suitable putaway location based on SKU match.

Sequence of location determination

For each item during split putaway, the sequence of location determination remains the same as:

- Full LPN putaway logic (with matching SKU enabled), and
- Split Putaway of Single-SKU IBLPN

Example Scenarios

The enhancement is illustrated using the example below.

LPN1 Composition

SKU	Quantity	Putaway Type (determined per item)
SKU-1	10	PA1
SKU-2	5	PA2
SKU-3	5	PA3

Eligible Locations (all max capacity = 10 units)

Putaway Type	Locations	Putaway Sequence	Inventory Present
PA1	LOC1 / LOC2 / LOC3	001 / 002 / 003	LOC2 has 8 units of SKU-1; LOC3 has 5 units of SKU-1
PA2	LOC4 / LOC5 / LOC6	004 / 005 / 006	LOC5 has 2 units of SKU-2; LOC6 has 2 units of SKU-2
PA3	LOC7 / LOC8	007 / 008	All locations empty

Putaway Method Priority configuration

- Putaway Method = Location Sequence
- Putaway Search Mode = Most Empty by Units
- multi-sku-lpn-mode = Split LPN Into Active Locations

Scenario 1 — When "Search Location with Matching SKU" = Yes

Allocation Seq	SKU	Quantity	To Location	Comments
1	SKU-1	5	LOC3	LOC2 & LOC3 contain SKU-1; LOC3 chosen as it is Most Empty by Units
2	SKU-1	2	LOC2	Next preference is LOC2 has SKU-1
3	SKU-1	3	LOC1	Next eligible location
4	SKU-2	5	LOC5	LOC5 & LOC6 both contain SKU-2; LOC5 chosen due to higher Putaway Sequence
5	SKU-3	5	LOC7	LOC7 chosen due to higher Putaway Sequence

Scenario 2 — When "Search Location with Matching SKU" = No

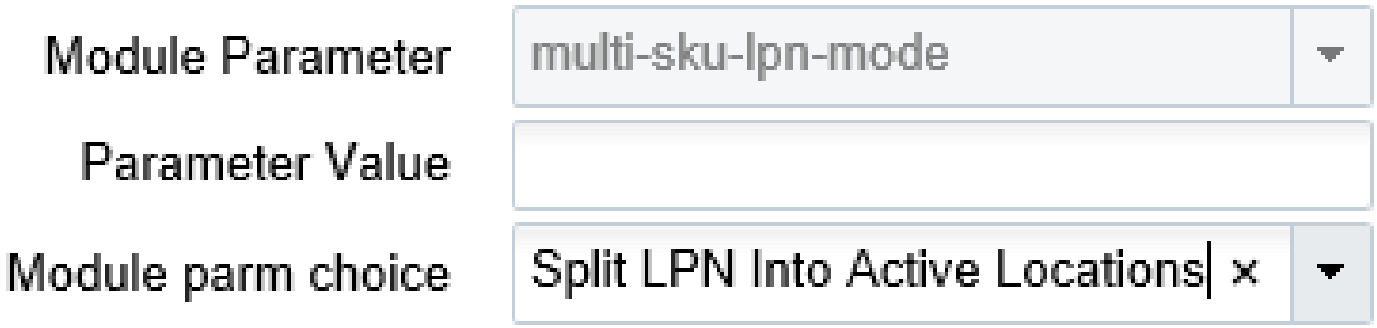
Allocation Seq	SKU	Quantity	To Location	Comment
1	SKU-1	10	LOC1	LOC1 is Most Empty by Units
2	SKU-2	5	LOC4	LOC4 is Most Empty by Units
3	SKU-3	5	LOC7	LOC7 chosen due to higher Putaway Sequence

Note:

- There is **no change to the logic that determines the Putaway Type** during split putaway.
- **“Search Location with Matching SKU” is supported only when Putaway Method = Location Sequence**.
- It is **not supported** when Putaway Method = **Market Basket Analysis Radial / Radial**, because radial logic requires a permanent pivot location and does not align with matching-SKU-based search.

Split LPN into Active Location

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".



Note: When you perform Split LPN Into Active Locations, the system will serach for putaway in the following order:

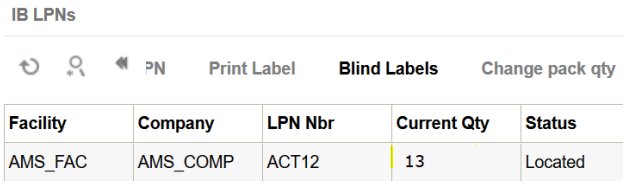
1. Putaway Type Calculation Rule (PutawayTypeCalcRuleView)
2. Item Facility
3. Item
4. Facility parameter - PUTAWAY_TYPE

For example,

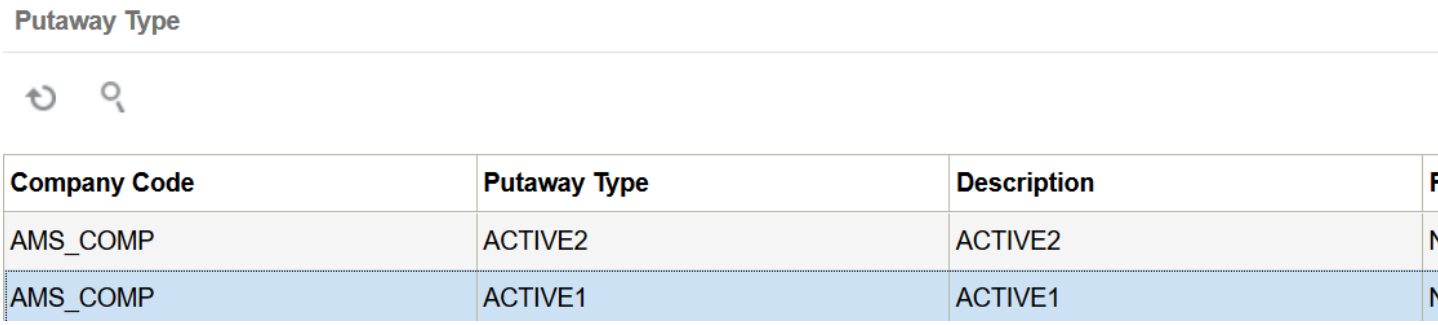
Let’s say you perform partial putaway of units from an LPN based on Max quantity from the active locations.

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.



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



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	Heigh
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

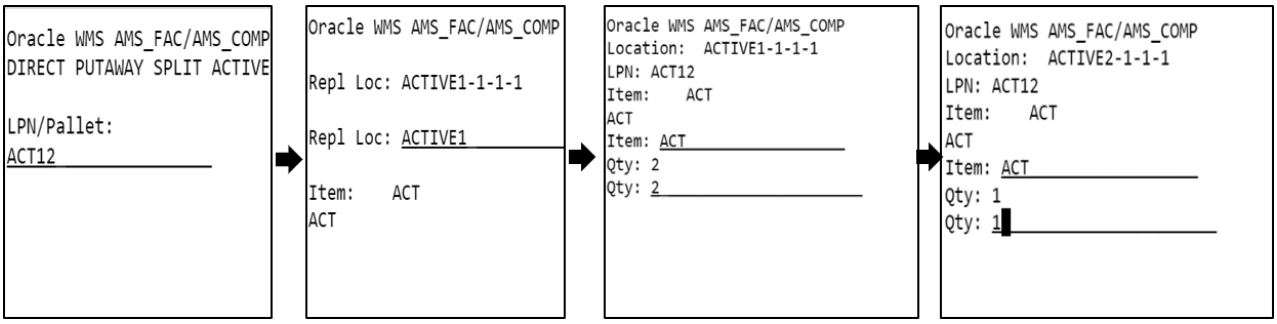
5. Check if the item ACT is available in the 2 location in the active inventory UI:

Active Inventory

Deallocate Modify Qty Location Capacity

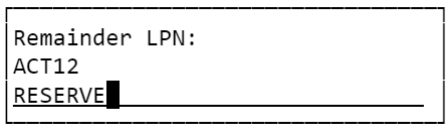
Facility	Location	Location Type	Current Qty	Location Size T	Area	Hierarchy 3 Coc	External Style	Item
Ana-Maria Str…	ACTIVE2-1-1-1	Active	1		ACTIVE2			ACT
Ana-Maria Str…	ACTIVE1-1-1-1	Active	3		ACTIVE1			ACT

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

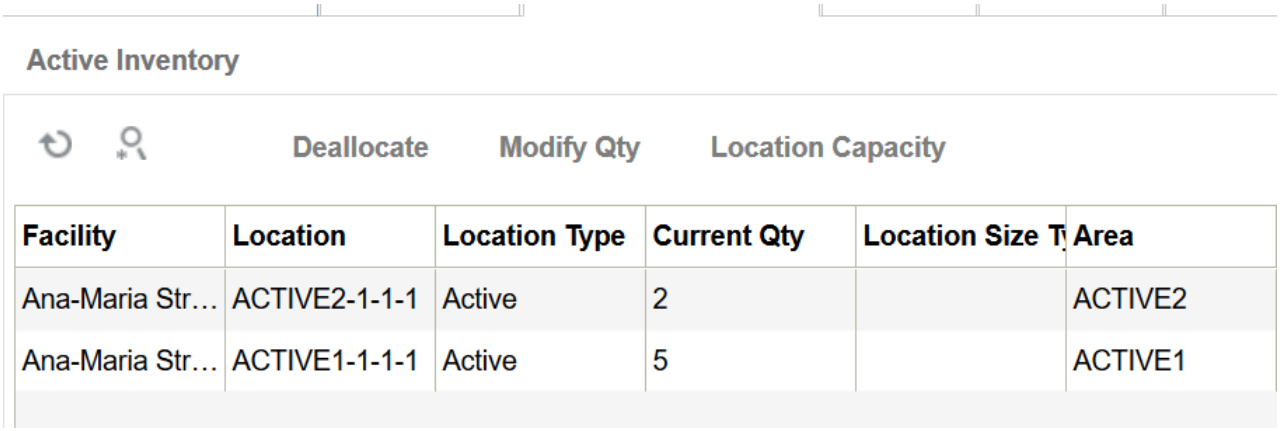


Note: On receiving the IBLPN, the putaway type Active 1 appears automatically.

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



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



Similarly, 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.

Note: Also, split enabled putaway to active locations can perform capacity check based on volume.

Introduce Task-Based Putaway

Task-Based Putaway Setup Guide

You can perform task based putaway via PUTAWAY_CART task type during the Putaway process. This task type lets you handle multiple LPN simultaneously.

to enable and configure this feature:

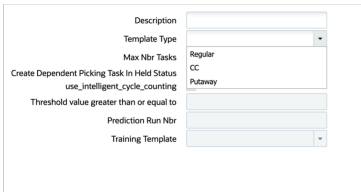
- Go to **TaskTypeView UI** > access the **PUTAWAY_CART** task type to enable the Build Putaway Cart Transaction.
- Navigate to **Configuration > Task Types** and select **PUTAWAY_CART** for multi-LPN putaway tasks.
- Navigate to **Task Creation Template** and select **Putaway** as the template type.
- Set up task settings for **PUTAWAY_CART** by configuring **Ordering Criteria** and **Zone Movement Rules**.

Task Creation Template: Putaway

The **Putaway Task Creation Template** helps generate tasks for putaway carts, improving task prioritization and organization.

To Define Ordering Criteria:

1. Navigate to **Task Creation Template > Putaway**.
2. Select **Order** and click **Ordering Criteria**.
3. Use **Sort By** and **Order By** columns to set task sequencing.



Note:

- Avoid specifying **Break By Quantity**, **Break By Weight**, or **Break By Volume** to prevent system errors.
- Configure fields like **Priority**, **Create Held**, and **Destination Zone** as needed.

Build Putaway Cart Compatibility

Define filtering rules for LPNs in the **Build Putaway Cart Compatibility Rule UI**.

To **Define Compatibility Rules**:

1. Go to **Build Putaway Cart Compatibility Rule UI**.
2. Set filtering criteria like **Company**, **Facility**, **Rule Name**, and **Rule Description**.
3. Define **Sequence Number** (required) and **Matching Column** (editable dropdown).

Note: If no compatibility rules are set, manual task creation rules must be configured.

Putaway Cart Process

The **Build Putaway Cart** screen automates tasks and improves accuracy by applying compatibility rules during LPN scanning.

New Modules for Putaway Operations

You can use the following two modules to improve putaway efficiency:

1. **Build Putaway Cart Module**
2. **Putaway Cart Module**
3. Module: rf.inbound.cwrfputawaycart

Putaway Cart Configuration

The **rf.inbound.cwrfbuildputawaycart** configuration integrates into **Receiving Shipment** and **Receiving Load** screens, offering flexibility during receiving operations.

Steps:

1. Set the **Putaway Type** based on the **recalculate-putaway-type** parameter.
2. Ensure compatibility and task assignment, with the system auto-populating the LPN# as the cart number.

Optimize Putaway Operations with Enhanced Cart Support, Task Criteria, and Location Flexibility

You can optimize your Putaway process using PUTAWAY cart support, task criteria, and location flexibility. Cart numbers and their positions are displayed directly in the Container View, enabling easy tracking and effective task allocation.

If a Putaway task is interrupted, it can be resumed without interruption with all critical details preserved, minimizing errors.

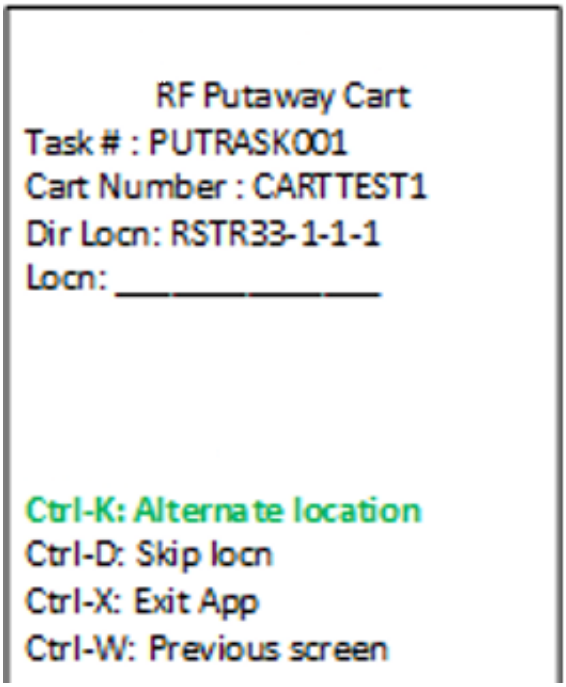
Cart management is optimized with capacity alerts that notify when a cart is full, preventing overloading. Outdated cart data is automatically cleared after task completion, maintaining a clean and organized workflow. Built-in validation checks prevent duplicate or incorrect moves, ensuring accurate inventory allocations.

For handling failed LPNs during Putaway, the system displays the following error messages:

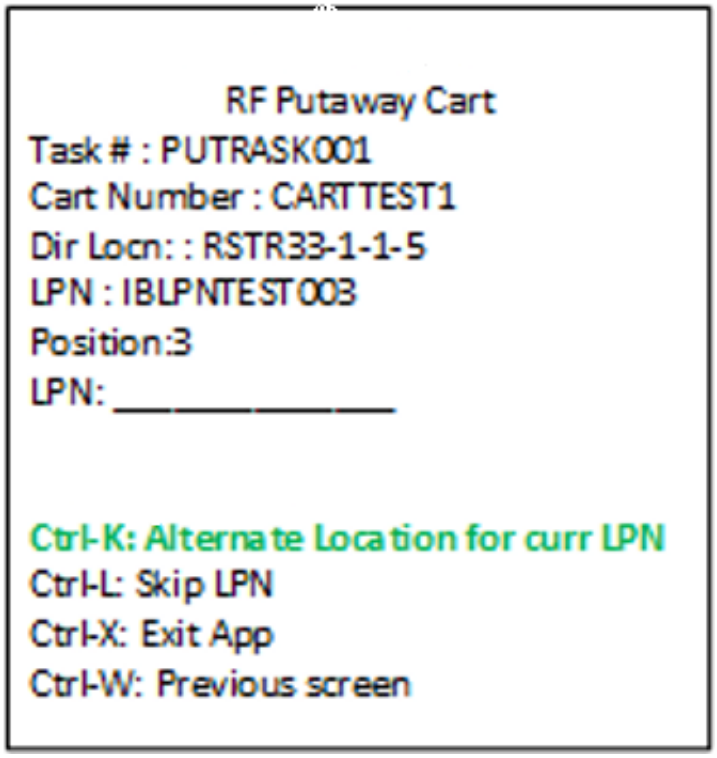
- For **partial failures**, “Remove LPN Scan” screen while keeping the successful ones in the cart.
- For **single failures**, the system automatically removes the failed LPN after scanning the drop location.
- For **complete failures**, all failed LPNs are removed by scanning the drop location. After removal, cart details are updated, successful items remain allocated, and activity logs ensure traceability.

When a designated storage location is unavailable, the system quickly identifies alternate locations, ensuring uninterrupted workflows and efficient item handling.

Note: In the Putaway cart flow, the Ctrl-K hotkey is used for updating locations.



The "Ctrl-K: Alternate Location" option appears in the Location prompt, while the "Ctrl-K: Alternate Location for current LPN" option is available in the LPN/Position prompt.



The latter is specifically used to update the location only for the prompted LPN when it cannot fit within the designated space. Upon pressing Ctrl-K, the system will perform a Reason Code Selection Check as outlined.

For more detailed information on Cart Based Putaway Enhancements, see the following video:

Watch video

Optimize the Cart-Based Putaway Flow

Auto-Launch build Putaway Cart from Sort and Receive

The Sort and Receive screen (module: **rf.inbound.cwrfsortandrecv**) supports automatic launching of the Build Putaway Cart to improve workflow efficiency and reduce manual steps after processing received LPNs.

A parameter **“next-screen-to-launch”** introduced in Sort and Receive is used to define the next screen that automatically opens after **“Ctrl-E: End Tote”** and **LPN Scan**.

> **Note:** Currently, this feature supports calling Mobile Transaction screens from the module "rf.inbound.cwrfbuildputawaycart", with the transaction screen name configured in the parameter value.

The following flow applies when the **“next-screen-to-launch”** parameter is configured with a valid Build Putaway Cart screen:

- After **Ctrl-E: End Tote** and LPN Scan, the system invokes the Build Putaway Cart for the scanned LPN/Tote.
- Once the Putaway allocation is successful:

- If **auto-assign-task** is enabled (in the Build Putaway Cart configuration):
  - The **Execute Task** screen opens immediately.
  - Upon completion, the system returns to Sort and Receive.
- If **auto-assign-task** is disabled or the Task Template is missing:
  - A message displays: *"Putaway cart task creation submitted for processing."*
  - The system then navigates back to Sort and Receive.

Note: When the Build Putaway Cart is triggered from Sort and Receive, the Sort and Receive location prompt does not appear.

LPN SCAN Prompt for Shared Positions in Putaway Cart

During Palletize, multiple LPNs can be placed in the same pallet position.

When performing Build Putaway Cart for the pallet, specifically during the Pick Cart transaction, if **'pick-confirmation'** is set to **'Position'**, and multiple LPNs exist in the same position, there is a potential risk of selecting inventory from the wrong LPN.

To prevent this, the Putaway Cart process includes an additional **LPN scan prompt** after the position scan when multiple LPNs are detected in the scanned position.

Expanded Matching Column for Build Putaway Cart Compatibility Rules

The list of **Matching Columns** for the Build Putaway Cart Compatibility Rule has been expanded. A total of 92 additional columns related to **Container**, **Item**, and **Destination Location** information are available. These fields can be used to configure more precise Build Putaway Cart Compatibility Rules as needed.

- New matching columns in the Build Putaway Cart Compatibility filter by Container information:

Container Asset Nbr
Container Height
Container is LPN as Physical Pallet Flag
Container Length
Container Lock Code
Container Priority Date
Container Volume
Container Weight
Container Width

- New matching columns in the Build Putaway Cart Compatibility filter by Item information:

Item Carrier Commodity Description
Item Case Oblpn Type

Item Catch Weight Method

Item Currency Code

Item custom attribute 1

Item custom attribute 2

Item Description

Item Description 2

Item Description 3

Item Dimension 1

Item Dimension 2

Item Dimension 3

Item Facility Custom Attribute 1

Item Facility Custom Attribute 2

Item Facility Custom Attribute 3

Item Facility Description

Item Facility Preferred aisle

Item Facility Preferred area

Item Facility Primary UOM

Item Facility Replenishment type

Item Hazmat Packaging Description

Item Hierarchy Code 1

Item Hierarchy Code 2

Item Hierarchy Code 3

Item Hierarchy Code 4

Item Hierarchy Code 5

Item Lpns Per Tier

Item Max Case Qty

Item Net Cost

Item Nmfc Code

Item Oblpn Type

Item Order Consolidation Attribute

Item Pack Oblpn Type

Item Packing Tolerance Percent

Item Pre Pack Code

Item Primary UOM

Item Product Life

Item Proper Shipping Name

Item Recv Type

Item Retail Price

Item Shipping Temperature Instr

Item Short Description

Item Std Case Height

Item Std Case Length

Item Std Case Qty

Item Std Case Volume

Item Std Case Width

Item Std Pack Height

Item Std Pack Length

Item Std Pack Qty

Item Std Pack Volume

Item Std Pack Width

Item Tiers Per Pallet

Item UN Description

Item UN Number

Item Unit Cost

Item Unit Height

Item Unit Length

Item Unit Volume

Item Unit Weight

Item Unit Width

- New matching columns in the Build Putaway Cart Compatibility filter by Destination location information

Destination Location Assembly Flag

Destination Location Barcode

Destination Location Billing Location Type

Destination Location Bin

Destination Location Cust Field 1

Destination Location Cust Field 2

Destination Location Cust Field 3

Destination Location Cust Field 4

Destination Location Cust Field 5

Destination Location Divert Lane

Destination Location Height

Destination Location Item Dedication Type

Destination Location Length

Destination Location Lock Code

Destination Location MHE System Code

Destination Location Pick Zone

Destination Location Ranking

Destination Location String

Destination Location Type

Destination Location Width

Expanded Selection Criteria for Task Creation Template

The list of **Selection Criteria** for the Task Creation template of **PUTAWAY_CART** Task Type has been expanded. Ninety-two additional criteria related to **Container**, **Item**, and **Destination Location** information are available. These can be used to define more specific configurations for the PUTAWAY_CART Task Creation template.

- New matching columns in the Putaway Template Type-selection criteria by Container information:

Container Asset Nbr

Container Height

Container is LPN as Physical Pallet Flag

Container Length

Container Lock Code

Container Priority Date

Container Volume

Container Weight

Container Width

- New matching columns in the Putaway Template Type-selection criteria by Item information:

Item Carrier Commodity Description

Item Case Oblpn Type

Item Catch Weight Method

Item Currency Code

Item custom attribute 1

Item custom attribute 2

Item Description

Item Description 2

Item Description 3

Item Dimension 1

Item Dimension 2

Item Dimension 3

Item Facility Custom Attribute 1

Item Facility Custom Attribute 2

Item Facility Custom Attribute 3

Item Facility Description

Item Facility Preferred aisle

Item Facility Preferred area

Item Facility Primary UOM

Item Facility Replenishment type

Item Hazmat Packaging Description

Item Hierarchy Code 1

Item Hierarchy Code 2

Item Hierarchy Code 3

Item Hierarchy Code 4

Item Hierarchy Code 5

Item Lpns Per Tier

Item Max Case Qty

Item Net Cost

Item Nmfc Code

Item Oblpn Type

Item Order Consolidation Attribute

Item Pack Oblpn Type

Item Packing Tolerance Percent

Item Pre Pack Code

Item Primary UOM

Item Product Life

Item Proper Shipping Name

Item Recv Type

Item Retail Price

Item Shipping Temperature Instr

Item Short Description

Item Std Case Height

Item Std Case Length

Item Std Case Qty

Item Std Case Volume

Item Std Case Width

Item Std Pack Height

Item Std Pack Length

Item Std Pack Qty

Item Std Pack Volume

Item Std Pack Width

Item Tiers Per Pallet

Item UN Description

Item UN Number

Item Unit Cost

Item Unit Height

Item Unit Length

Item Unit Volume

Item Unit Weight

Item Unit Width

- New matching columns in the Putaway Template Type-selection criteria by Destination location information:

Destination Location Assembly Flag

Destination Location Barcode

Destination Location Billing Location Type

Destination Location Bin

Destination Location Cust Field 1

Destination Location Cust Field 2

Destination Location Cust Field 3

Destination Location Cust Field 4

Destination Location Cust Field 5

Destination Location Divert Lane

Destination Location Height

Destination Location Item Dedication Type

Destination Location Length

Destination Location Lock Code

Destination Location MHE System Code

Destination Location Pick Zone

Destination Location Ranking

Destination Location String

Destination Location Type

Destination Location Width

Note: Additional Updates

- A hot key **CTRL+L** is available on the Build Putaway Cart / LPN Scan screen to display the LPNs already scanned to the cart.
- The **CART_POSN_NBR** field now accepts both alphabetic and numeric values. It is stored as text with a maximum length of 15 characters, ensuring consistency with the pallet position field. This change resolves the issue that occurred when a pallet defined with an alphanumeric position was used as a cart that only supported numeric values.

Display Extra item Properties

You can now enable an additional item detail on the SKU scan screen using a new parameter called **extra-item-property-disp** in the rf.inbound.cwrfputawaycart flow. Displaying an additional recognizable item property helps operators identify the right SKU instantly, eliminating guesswork and improving speed and accuracy.

This parameter allows you to choose one extra item attribute to display just before the item scan field. If the parameter is left blank, the screen behaves as usual and no extra field is shown.

Parameter Details

Parameter Name	Parameter Type	Available Choices
extra-item-property-disp	Selection	• Item Alternate Code • Item Part A • Item External Style • Item Facility Description • Item Short Description • Item Description 2 • Item Description 3 • Season Code • Item Barcode

SKU-Qty Scan Screen

The SKU-Qty scan screen now includes an **Item Image** component. The system displays both **Item Code** and **Item Description** inside this image component, consistent with other RF Putaway screens.

Facilitate Putaway to Work Center Location for Direct Item Procurement

In certain manufacturing environments, raw materials or components are procured directly from vendors for immediate use in specific work centers or assembly areas within the warehouse.

This functionality enables you to receive materials directly to a designated work center location, bypassing standard storage areas.

Using this feature, the system directs received items from the supplier directly to the appropriate destination location based on Purchase Order (PO) details and configured Putaway rules.

Here's how it functions:

- Purchase Orders includes instructions to deliver items directly to the work center or destination location. There are three new fields added in the PO Details:
  - Destination Location
  - Manufacturing Work Order Number
  - Manufacturing Operation Sequence
- The destination location information from the Purchase Order details is copied to the corresponding ASN details.
- **Putaway Type Calculation Rule** can calculate a specific Putaway type for inventories with required work center or destination location information.
  - We have expanded the **PutawayTypeCalcRuleView** > **Selection Criteria** with these new columns:

  - IB Shipment Dtl Destination Location Aisle
  - IB Shipment Dtl Destination Location Alloc Zone
  - IB Shipment Dtl Destination Location Area
  - IB Shipment Dtl Destination Location Barcode
  - IB Shipment Dtl Destination Location Bay
  - IB Shipment Dtl Destination Location Billing Location Type
  - IB Shipment Dtl Destination Location Height
  - IB Shipment Dtl Destination Location Length
  - IB Shipment Dtl Destination Location Level
  - IB Shipment Dtl Destination Location Lock Code
  - IB Shipment Dtl Destination Location Size Type
  - IB Shipment Dtl Destination Location String
  - IB Shipment Dtl Destination Location MHE System Code
  - IB Shipment Dtl Destination Location Task Zone
  - IB Shipment Dtl Destination Location Type
  - IB Shipment Dtl Destination Location Width
  - IB Shipment Dtl Mfg Work Order Nbr
  - IB Shipment Dtl Mfg Work Operation Seq

- A **Putaway Method,** “**Predetermined Location**” is available in the Putaway Priority screen, to direct the LPNs to the predefined location/work center during **System Directed Putaway**. When the Putaway Method is set to “**Predetermined Location**”, the following threenew configuration fields will be enabled for edit:
- "**Infer Destination Location From**" provides the following drop-down options:
  - IB Shipment Dtl Destination Location
  - IB Shipment Dtl Cust Field1
  - IB Shipment Dtl Cust Field2
  - IB Shipment Dtl Cust Field3
  - IB Shipment Dtl Cust Field4
  - IB Shipment Dtl Cust Field5
  - IB Shipment Dtl Cust Long Text1
  - IB Shipment Dtl Cust Long Text2
  - IB Shipment Dtl Cust Long Text3
  - IB Shipment Dtl Cust Short Text1
  - IB Shipment Dtl Cust Short Text2
  - IB Shipment Dtl Cust Short Text3
  - IB Shipment Dtl Cust Short Text4
  - IB Shipment Dtl Cust Short Text5
  - IB Shipment Dtl Cust Short Text6
  - IB Shipment Dtl Cust Short Text7
  - IB Shipment Dtl Cust Short Text8
  - IB Shipment Dtl Cust Short Text9
  - IB Shipment Dtl Cust Short Text10

    - IB Shipment Dtl Cust Short Text11
    - IB Shipment Dtl Cust Short Text12

- **Destination Location** is a look-up field, where you can filter and select an **Active** or **Reserve** location.
- **Auto Consume Flag** is a check box.
    - If the **Auto Consume Flag** is enabled, the **Destination Location** must be of type **Active**.

Note: You must provide either the **Infer Destination Location From** or **Destination Location**. If you do not configure either field, the system will display an error: “Provide either **Infer Destination Location From** or **Destination Location**.” If you configure both fields, the system will display an error: “Provide either Infer **Destination Location From** or **Destination Location**.”

MANDATORY STEPS FOR A PROPER DIP FLOW:

WMS Fusion needs to send the pre-determined work center location (Active Location) and work order information (optional) in the purchase order details.During receiving, the LPNs should be locked with a Pending Putaway lock code, with "Unlock on Locate to Reserve" = Yes.Post receiving, using the System direct putaway, the inventories will be moved to thedesignated work center location.Steps to Enable

Important

Below are some configuration examples. You can configure the **Putaway Type Calculation Rule** and **Putaway Priority** with any of the new configuration options based on your business needs.

1. **DEFINE DESTINATION LOCATION IN PURCHASE ORDERS**

Create Purchase Order details with the following information:

- Destination Location (must be an Active or Reserve location).
- Manufacturing Work Order Number (optional, up to 120 characters).
- Manufacturing Operation Sequence (optional, whole numbers only).

1. **SET UP PUTAWAY TYPE**

Configure a Putaway Type to be used for the **Direct Item Procurement** flow.

For example: DIPPT1

1. **SET UP PUTAWAY TYPE CALCULATION RULE**

If you want the system to recognize inventories that have a **Destination Location** defined (from IB Shipment Detail Destination Location), you can set up the **Putaway Type Calculation Rule** as follows:

For **Final Putaway Type** = **DIIPPT1**

Set the **Selection Criteria** as follows:

-
    - **SQL Operator**: IS BLANK OR NULL
    - **Column Name**: IB Shipment Dtl Destination Location Barcode
    - **Column Value**: False

1. **SET UP PUTAWAY PRIORITY**:

a. Select **Putaway Type** = DIPPT1.
b. Set a **Priority**.
c. Select **Putaway Method** = **Predetermined Location**.
d. Select **Infer Destination Location From** = **IB Shipment Dtl Destination Location**.
e. Enable **Auto Consume Flag**.
f. Click **Save**.

Putaway Priority Set Up

Important

- The existing **System Directed Putaway IHT records** are updated with new **Ref fields** to indicate a DIP flow.
- For a DIP flow with **Auto-Consume**, a new **IHT-91** is written in addition to the existing IHTs.

Important IHT Changes:

Column	Code	IHT	Possible Values	Logic / Description
REF14	ACF	IHT-24, IHT-25	Yes / No	If the *Auto Consume* flag in the new putaway method is **True**, REF14 is populated as **Yes**; otherwise, **No**.
REF17	HDP	IHT-91	True / False	Value depends on the *Auto Consume* flag configured for the new DIP Putaway method.
REF17	HDP	IHT-2	True / False	Set to **True** only if a PO or ASN detail includes a *work assembly location*.
REF3	HDP	IHT-4, IHT-17	True / False	Set to **True** only if a PO or ASN detail includes a *work assembly location*.
REF17	HDP	IHT-63, IHT-64	True / False	Set to **True** only if a PO or ASN detail includes a *work assembly location*.
REF14	ACF	IHT-63, IHT-64	Yes / No	If the *Auto Consume* flag in the new putaway method is **True**, REF14 is populated as **Yes**; otherwise, **No**.

Infer UOM from Scanned Barcode in Putaway Cart

To support the UOM inference for the Putaway Cart module, we've introduced:

- a new screen parameter **infer-uom-from-item-barcode**
- a new hot key (Ctrl+K) to switch the UOM.

Infer UOM Screen Parameter

When you perform Putaway Cart, you can infer the UOM from the scanned barcode by configuring the screen parameter **infer-uom-from-item-barcode** (as "Yes").

When you allocate Units, this feature is particularly useful since you can easily putaway the scanned quantity in terms of Packs or Cases without needing to compute the Unit quantity, while also eliminating any errors due to mistyping the UOM.

> **Note:** Note By default, the parameter value is blank. Here, the system behavior is the same as a "No" value and will not infer the UOM from the scanned item barcode.

Switch UOM Using Hotkey

On the other hand, if your actual allocated inventories have UOMs that are different from item's primary UOM (i.e, Units/Cases/Packs/other non-primary UOM of the same class), it could be useful to change the UOM while performing putaway.

With the newly introduced hotkey "Ctrl+K", you can easily switch the UOM via the SKU and quantity scan screen of the Putaway Cart module.

Note:

- You can use the Ctrl+K hotkey to switch UOM only when the screen parameter **infer-uom-from-item-barcode** is set as <blank> or “No”. This is because you’d be inferring the UOM from the item barcode when the parameter is set as “Yes”.
- When the Allocation UOM is in Cases, you can putaway the inventory only in terms of the Case UOM. So, if any other UOM is selected in the UOM selection screen, the system displays an error message: “Allocation UOM is not compatible with selected UOM”.
- However, when the Allocation UOM is in Packs, you can perform the putaway in terms of the Packs UOM and Case UOM (higher package UOM). For Case UOM, the putaway is conditional to the allocated inventory case quantity being a multiple of the inventory pack quantity.

  So, if you select any other UOM other than the Package UOM (Case/Pack UOM) or if the allocated inventory case quantity is not a multiple of the inventory pack quantity, the system displays an error message: “Allocation UOM is not compatible with selected UOM”.

The following table informs you how the putaway quantity is computed when you press the Switch UOM hotkey:

UOM TYPE SELECTED FOR SWITCHING	BEHAVIOR
Primary UOM	The putaway quantity is computed according to the item’s Primary UOM.
Pack UOM	Upon SKU and quantity scan, the putaway quantity is computed as (scanned quantity * inventory pack quantity).
Case UOM	Upon SKU and quantity scan, the putaway quantity is computed as (scanned quantity * inventory case quantity).
Not a Primary/Pack/Case UOM	Upon SKU and quantity scan, the putaway quantity is computed as (scanned quantity * UOM conversion factor).

Steps to Enable

To infer UOM from the scanned barcode during Putaway Cart:

1. Configure the screen parameter **infer-uom-from-item-barcode** (as “Yes”).

To switch the UOM:

1. From the Putaway Cart module, go to the SKU and quantity scan screen.
2. Press the hotkey “Ctrl+K”.

Support Pallet Putaway to Multiple Locations using Build Putaway cart Transaction

You can use an existing pallet as a cart in the Build Putaway Cart transaction to streamline the Putaway process for palletized inbound LPNs (IBLPNs). This method eliminates the need to move palletized IBLPNs onto a separate cart, saving time, lowering operational costs, and reducing the risk of damage from extra handling.

Note: Unlike standard Pallet Putaway, which requires all LPNs on a pallet to be allocated to a single location before the pallet can be moved, this process offers greater flexibility. It allows individual or multiple LPNs on a cart to be putaway into different locations, enabling more efficient and adaptable inventory management.

Use Pallet as Cart Option

The **cart_prompt** module parameter in the Build Putaway Cart transaction includes these options:

- Use Pallet as Cart
- Prompt Cart Nbr
- Auto generated Cart Nbr

You can select **Use Pallet as Cart** to treat the scanned pallet as the cart during the Putaway process.

How It Works

- You can scan the pallet that holds the LPNs instead of creating a separate cart.
- The system skips certain cart-specific rules, such as maximum number of items or compatibility checks, since they don't apply to using an existing pallet.
- The system applies pre-defined rules to determine item placement.
- If only part of the pallet LPNs qualifies for storage, the system prompts you to confirm whether to move the entire pallet.
    - If confirmed, the system creates a Putaway Task.
    - If declined, the plan saves without starting the task.
- The system tracks and logs all updates related to pallet location and contents.

Lock a Pallet with Items During Putaway

Once the system creates a Putaway Task for a pallet used as a cart:

- The pallet and assigned items lock against other operations such as sorting, moving, or receiving.
- Attempting to move the pallet triggers the error: **"Pallet has a Putaway cart Task. Cannot proceed."**
- Attempting to move or depalletize assigned items triggers the error: **"LPN is in a putaway cart. Cannot proceed with the scan."**

Note: Items on the pallet not assigned to the task can still move. When such an item moves, the system:

- Removes it from the pallet.
- Clears pallet and cart information from the item.
- Logs the activity.

The system unlocks all elements after the Putaway Task completes or cancels.

This locking applies across handheld devices, UI screens, and API calls related to receiving, sorting, locating, palletizing, moving items, and closing tasks.

Track Pallet Movement by Zone

The system logs pallet movements when moving the pallet (as cart) between drop zones. This maintains accurate location history.

Handling Leftover Inventory and Scan Behavior

If the Putaway Task does not use all items on the pallet:

- The system prompts the user to drop leftover LPNs at a valid location.
- You can scan a drop location - the system returns an error if the location is invalid.
- You can skip scanning if needed.

When an item stores completely, the system:

- Clears pallet and cart data from the item.
- Logs the move.
- Removes the item from the cart.

Navigation After Palletizing Items

The **next-screen-to-launch** parameter on the Palletize screen defines which mobile transaction screen opens after ending a pallet.

When configured:

- The system automatically opens the Build Putaway Cart screen.
- The Pallet Nbr auto-fills as Cart Nbr, eliminating the need to scan again.

Comment
This parameter provides an option to automatically invoke the next screen after the End **Pallet**. Currently, this enhancement supports screens from the **rf.inbound.cwrfbuildputawaycart** module. The intended screen name should be configured in the Parameter Value.

If **auto-assign task** is enabled:

- The system opens the Execute Task screen immediately after.
- Returns to the Palletize pallet prompt screen after execution.

If **auto-assign task** is disabled:

- The system shows a confirmation message.
- Returns to the Palletize pallet prompt screen.

Build Putaway Cart

The system handles received items as follows when the Build Putaway Cart screen is the next screen:

- **Full Pallet:** Opens Build Putaway Cart, treats the pallet as the cart, and auto-fills pallet information.
- The LPN# gets auto filled as Cart#.

Task creation depends on the auto-assign setup:

- If disabled, the system confirms the setup without assigning a task.
- If enabled, the system validates and opens the task for execution immediately.

Drop Location Scan Prompt

The **prompt-location** parameter in the Build Putaway Cart module controls whether the system prompt you to scan a drop location after task creation (only when auto-assign task is disabled).

Note: This function enables accurate cart tracking once a task is created in non-auto-assign mode. It is particularly useful for supporting task interleaving.

When enabled, the system:

- Validates the scanned location.
- Shows errors for invalid or incompatible locations.
- Saves the valid location as the current task location.

If disabled, the system skips this prompt.

Default Task Ordering Criteria

When creating Putaway Tasks without a specific order template, the system orders task details by the destination location's **Putaway Sequence** in ascending order instead of cart position number. This ensures:

- Tasks group by destination location.
- Operators scan each location once and complete all putaway actions before moving on.
- Split LPN allocations for the same location group together, reducing redundant scans.

Configuration

- Set the cart_prompt screen parm >Use Pallet as Cart.

Use Pallet as Cart: Screen Flow

- a. Open the Mobile App and navigate to the Build Putaway Cart screen.
  b. In the Pallet prompt, scan or enter the Pallet Number (e.g., PLTTEST1).

c. The system processes the following scenarios based on IBLPN allocation:
d. If accepted, move the pallet (acting as cart) to the Drop Zone.

- **All IBLPNs allocated:**
  - The system prompts: "All IBLPNs allocated for putaway. Proceed with Putaway Task creation?".
  - Press **Ctrl-A** to accept and create the task using the pallet number as the cart number.
  - Press **Ctrl-W** to cancel.
- **No IBLPNs allocated:**
  - The system prompts: "No IBLPNs allocated for putaway. No task will be created".
  - Press **Ctrl-W** to exit or proceed based on needs.
- **Some IBLPNs allocated:**
  - The system prompts: "X of Y IBLPNs allocated for putaway. Proceed with Putaway Task creation?".
  - Press **Ctrl-A** to accept and create a partial task.
  - Press **Ctrl-W** to cancel.

Note: Continue moving the pallet to task zones or drop locations according to created tasks. After completing all putaway tasks, exit the application by pressing Ctrl-X.

Split IBLPN

The **Split IBLPN (rf.inbound.cwrfsplitcntr)** mobile transaction enables you to transfer inventory from one IBLPN to another, effectively dividing a single IBLPN into multiple separate IBLPNs. This functionality is useful when distributing inventory across multiple storage locations.

When receiving inventory, it is crucial to perform putaway before splitting or combining multiple LPNs associated with Purchase Orders (PO) or Inbound (IB) Shipments. If you split or combine LPNs before putaway, the link between the LPNs and the corresponding PO or IB Shipment information may be lost. As a result, if you are using putaway to confirm inventory receipt to make the inventory allocatable, any split or combine operation (intended or unintended) before putaway can lead to inventory discrepancies. To avoid this, it is recommended to perform split or combine operations only after completing the inventory putaway.

The following steps describe the basic transaction flow of the **Split IBLPN** mobile transaction:

1. Invoke the **Split IBLPN** mobile transaction.
2. Scan or enter an LPN from where the items will be moved (source LPN).
3. Press Enter or click **Next.**
   When the screen parameter “prevent-split-when-unlock-on-locate” = “Yes”, if you perform LPN split or combine an LPN prior to putaway, the system will prevent the split or combine operation, if the LPN has a lock code (enabled with the "Unlock on Locate to Reserve" flag). This ensures that the PO or IB Shipment details remain linked to the received LPNs and prevents integration errors. Note that this is not applicable to Batch lock code.
   If you are splitting or combining LPNs (has a lock code enabled with the "Unlock on Locate to Reserve" flag) before putaway, it is recommended to first locate the inventory to a location, thereby acknowledging putaway, and then proceed with the split or combine operation.
4. Scan or enter an item that you want to move from the scanned LPN and press Enter or click **Next**.

> **Note:** If the scanned LPN is a single SKU LPN, the system skips this step and defaults the SKU.

5. Scan or enter the following details and press Enter:
   - Move Qty
   - Move To LPN

> **Note:**
> - On the **Move To LPN** field, scan or enter Destination LPN to where the scanned SKUs will be moved. If the scanned **Move To LPN** is a new SKU, the system creates a new LPN. If the scanned **Move To LPN** is an existing SKU, the system adds the scanned items to the LPN.
> - You can use the hotkey "Ctrl-N: Split New Item" to change the SKU details to move.

6. If the scanned LPN is a multi-SKU LPN, scan or enter next item to move from the scanned source LPN and continue further.
7. Once you complete the split, press **Ctrl-E: End from Container** hotkey.

The screen flow changes based on mobile transaction screen parameters configuration. For more details, refer to the Mobile Screen Parameters file (*Oracle WMS Cloud Information Center* > **Documentation** tab > click the link under **Current Documentation** > refer to the **Mobile Screen Parameters Quick Reference** document).

> **Note:** You can split an IBLPN using **split_lpn** API. For detailed API documentation, refer to the *WMS REST API Guide*.

Support Destination LPN Retention during Split Inbound LPN

You can retain a destination inbound LPN (To LPN) after completing a source inbound LPN (From LPN) in the Mobile Split IBLPN transaction. Retaining the To LPN lets operators split inventory from multiple source containers into the same destination container without repeatedly scanning the destination LPN.

In Mobile Split IBLPN, the **From LPN** is the source container from which inventory is moved. The **To LPN** is the destination container that receives the inventory.

When the retain option is enabled, the system clears only the **From LPN** when the operator ends it. The **To LPN** remains available, allowing the operator to scan another From LPN and continue splitting inventory into the same destination LPN. The system clears the To LPN only when the operator explicitly selects **Ctrl+T: End To LPN**.

This behavior supports the applicable split modes and preserves existing LPN validation. The system continues to reject invalid, closed, or otherwise ineligible destination LPNs.

> **Note:** The retain behaviour applies only when the To LPN confirmation mode is set to **Confirm before SKU Scan**. Other confirmation modes continue to use their existing behavior.

The following table displays the configuration available for Split IBLPN screen parameters.

Split IBLPN screen parameters

Parameter	Value	Result
to-lpn-confirmation-mode	Confirm before SKU Scan	Enables the confirmation mode required for this feature.

Parameter	Value	Result
retain-to-lpn-on-ending-from-lpn	Yes	Retains the To LPN after the operator ends the From LPN.
retain-to-lpn-on-ending-from-lpn	No or Blank	Uses the default behavior. The system clears the To LPN when the operator ends the From LPN.

Note: Earlier requirement references may use the name `retain-to-lpn-upon-ending-from-lpn`. Verify the parameter name shown in your screen-parameter configuration. To enable, do the following:

1. Open the RF Split IBLPN screen configuration for the required facility.
2. Set to-lpn-confirmation-mode to **Confirm before SKU Scan**.
3. Set retain-to-lpn-on-ending-from-lpn to **Yes**.
4. Open RF Split IBLPN and scan the From LPN and To LPN.
5. Scan the item and enter the quantity to split.
6. Complete the split transaction for the source LPN.
7. Select Ctrl+E: End From LPN. The system clears the From LPN and retains the To LPN.
8. Scan the next From LPN. Continue splitting inventory into the retained To LPN.

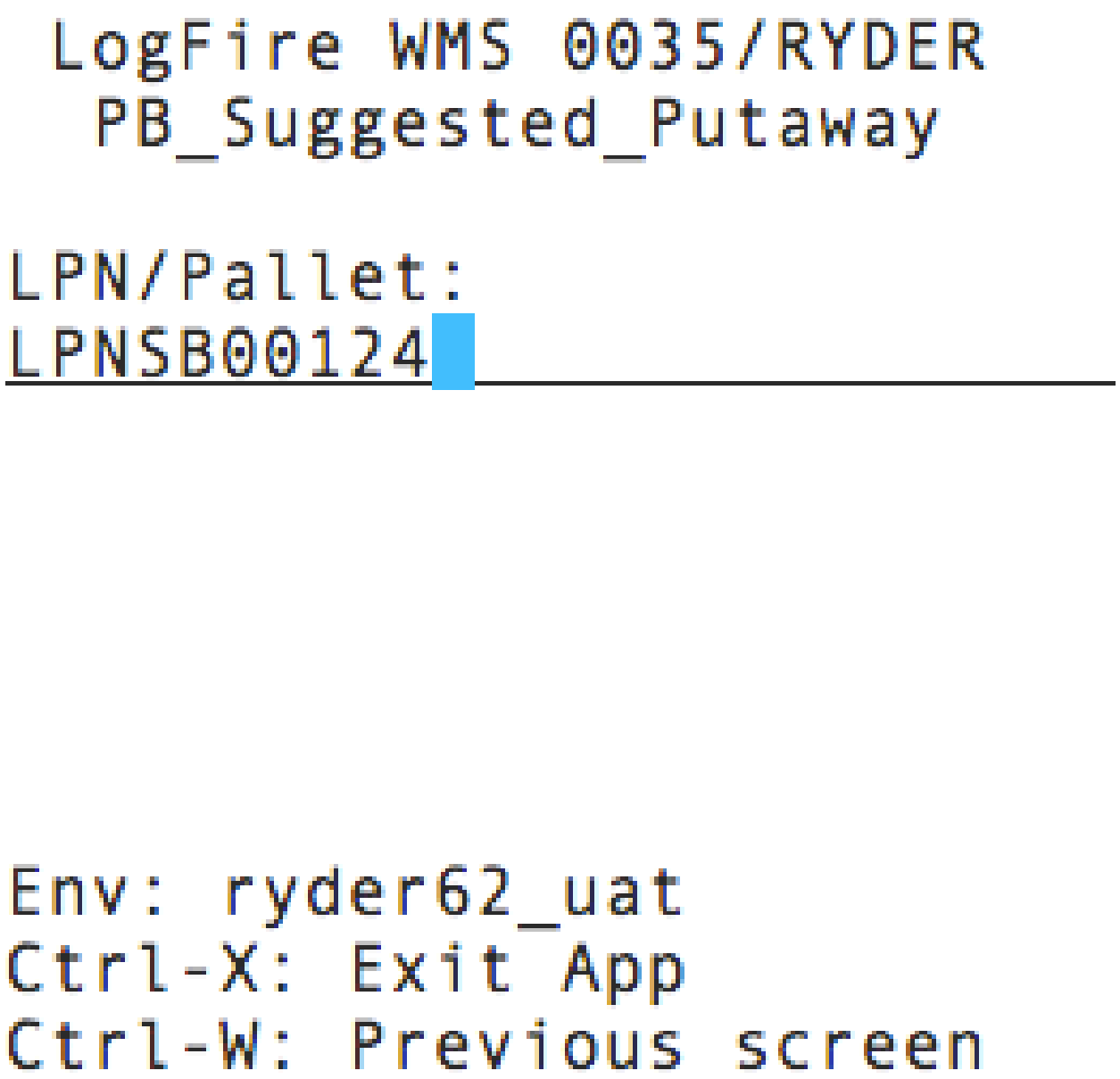
Suggested Putaway

The Mobile 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.

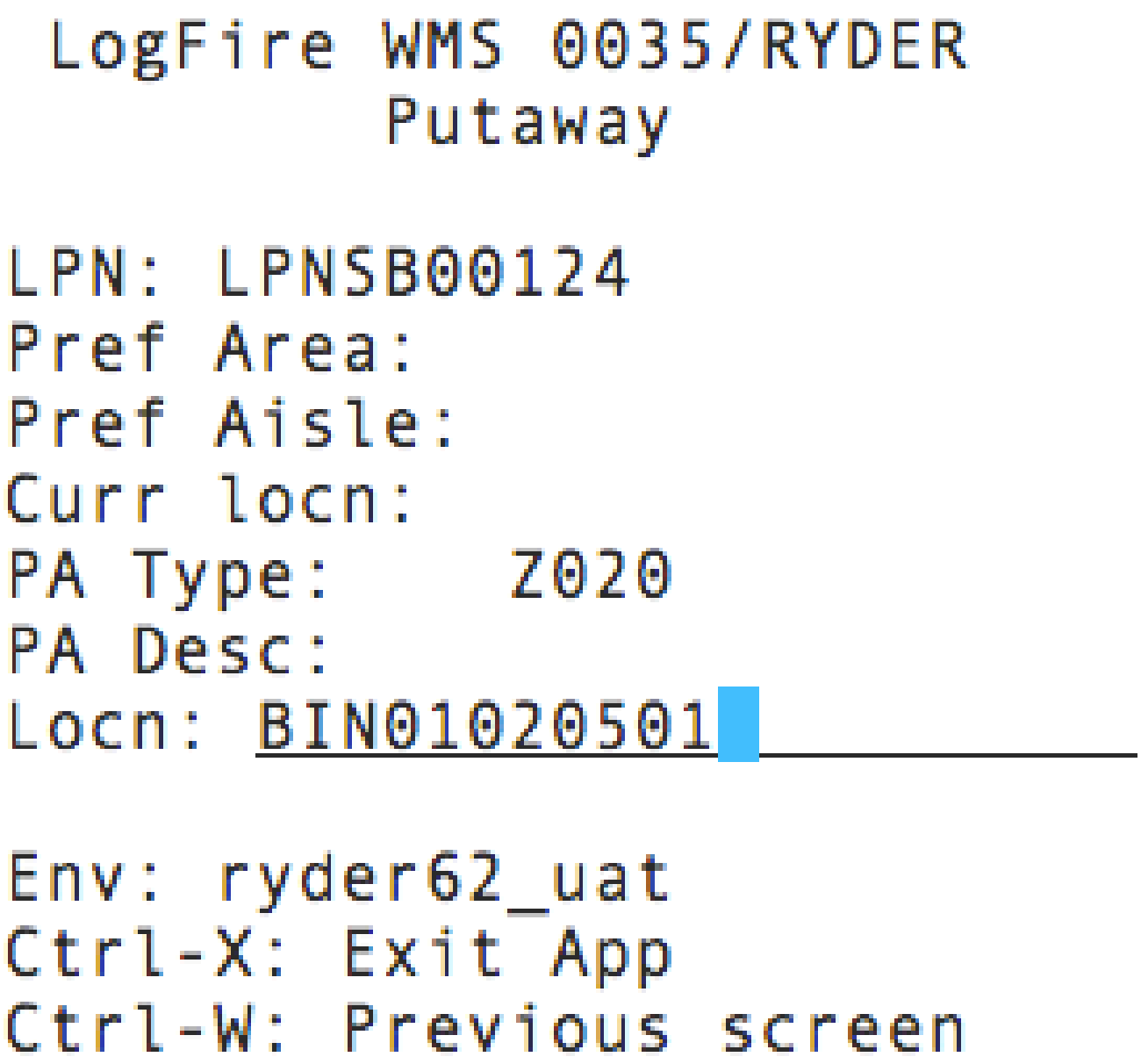
Note: Suggested Putaway will not look at properties like putaway type or location size type. Suggested Putaway looks at your configuration at the item facility level and shows the user the area or aisle.

1. Select the Transaction 'Suggested Putaway'.

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



3. Scan the location chosen for putaway.



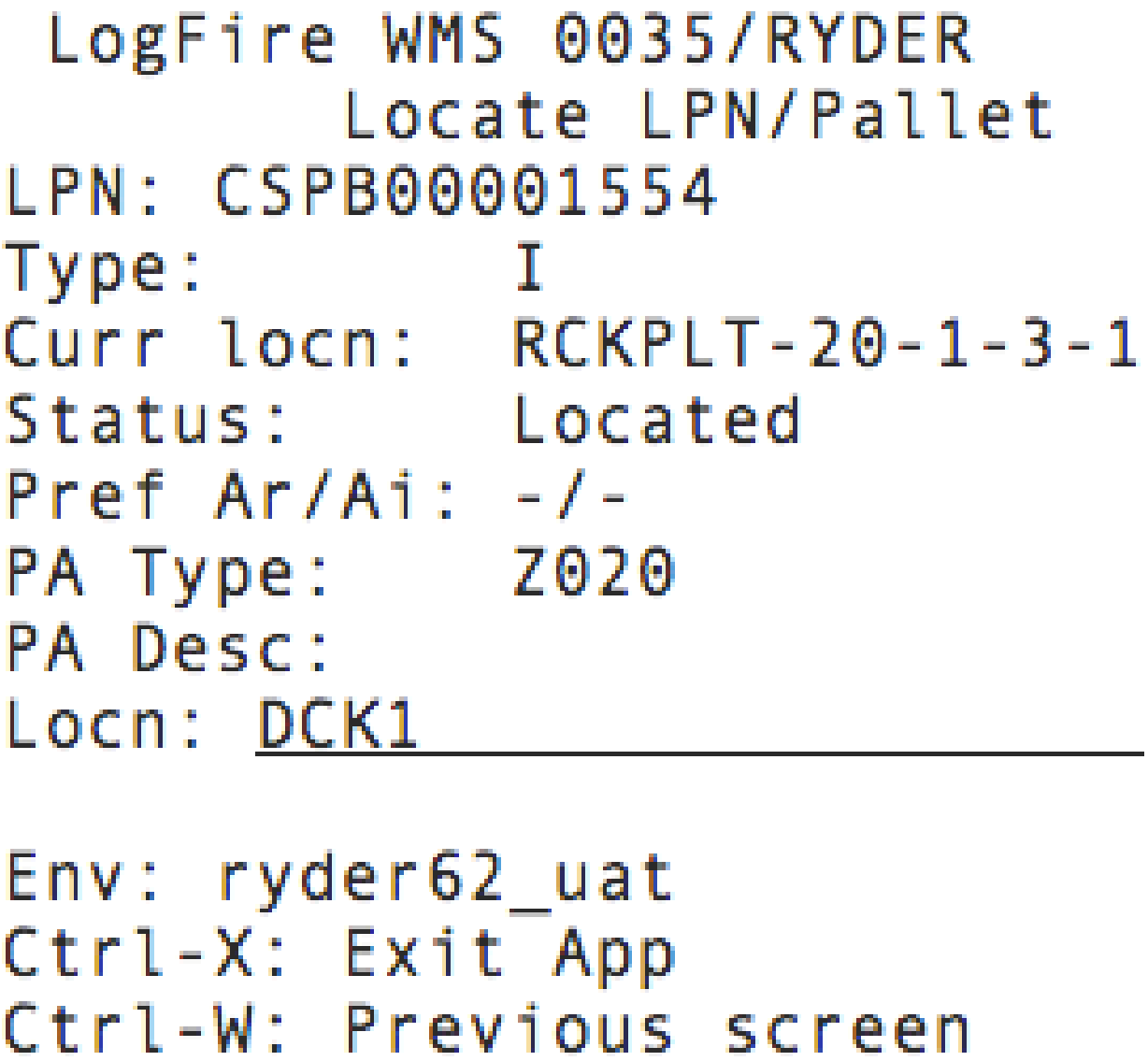
Note: If the scanned location has a max weight greater than zero, the system will validate the location's max weight with the scanned IBLPN/Pallet weight to make sure that the new IBLPN/Pallet is still within the limits of the max weight.

Locate LPN to any Reserve Location

Mobile 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 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.



3 Warehouse Automation

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 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 packing of inducted inventory. This	Sorter / Put to Light	Incoming

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

Common Warehouse Automation 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.

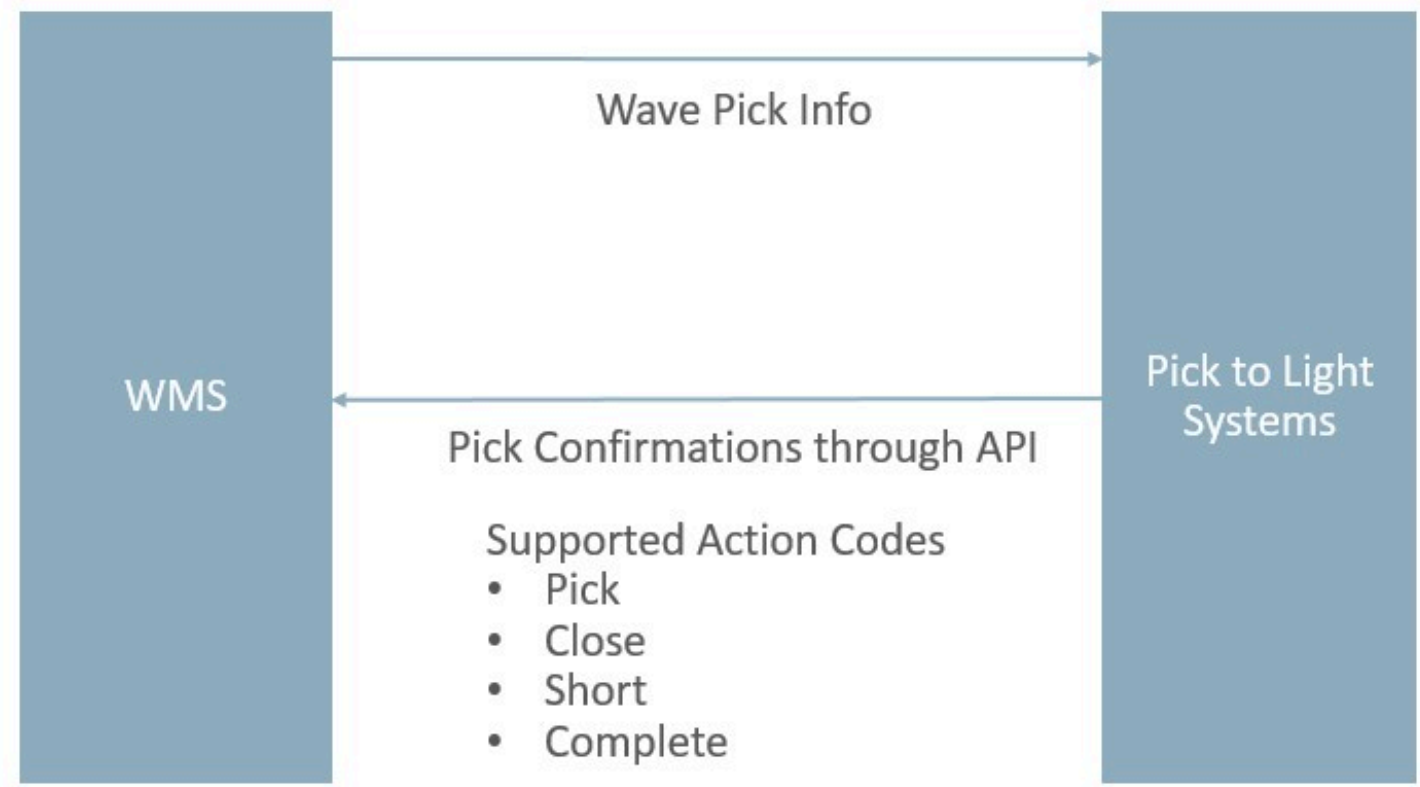
Wave Load Balancing Flow

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.
2	WMS sends Wave Pick Information message.

Step	Description
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.

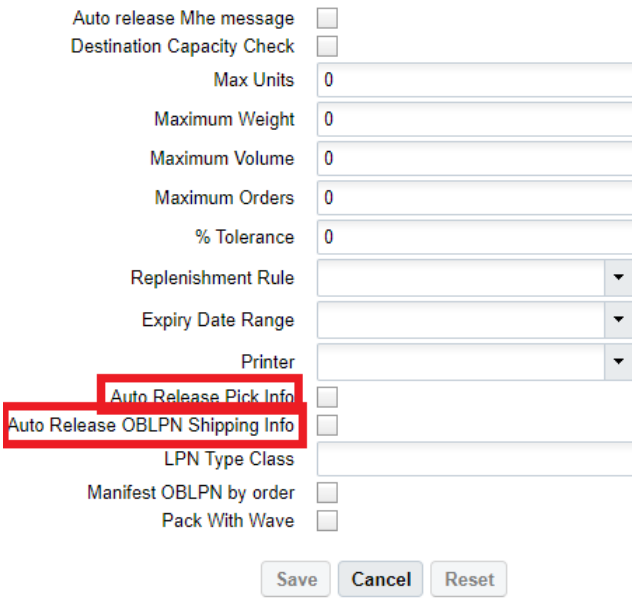
This flow diagram illustrates the Wave Pick Information being sent to the Pick to Light System and the Pick to Light System generating and API call to WMS as picks are confirmed. WMS then performs the pick and pack updates:



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.



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	• 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	• to container nbr is required

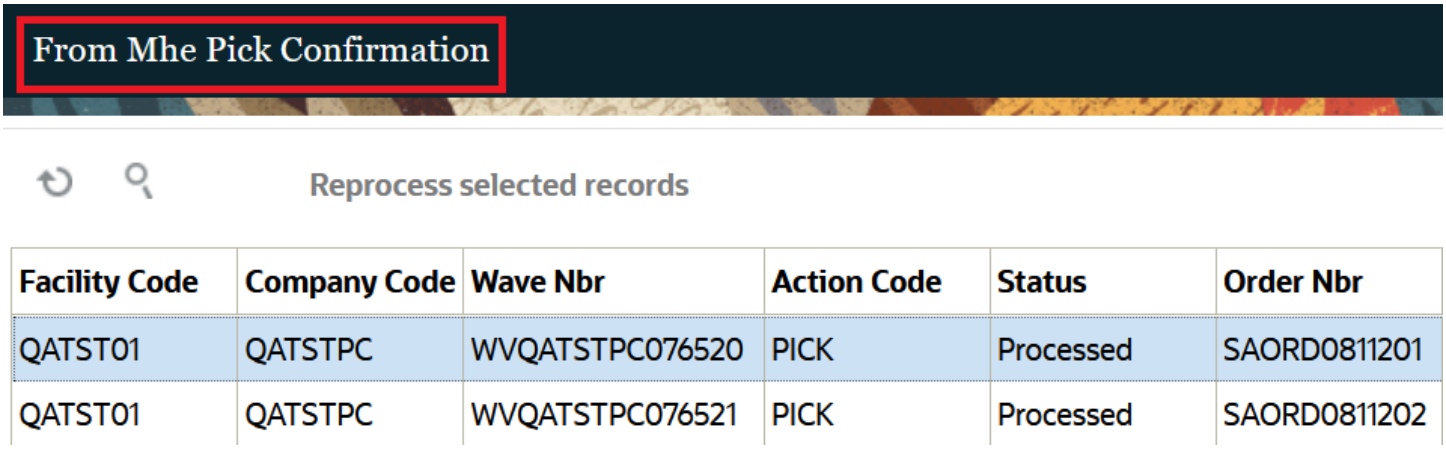
Action Code	Assumptions
Short	• order_nbr is required, • at least item_alternate_code or item_barcode must be passed,\ • qty is required • pick_location or from_containter_number required
Complete	

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:



Reprocess Failed Records from the MHE Pick Confirmation UI

Oracle WMS Cloud lets you reprocess failed records from the **MHE Pick Confirmation** screen so that they do not have to send the pick confirmation messages once again from the MHE itself. MHE systems (Pick to Light systems, ASRS systems or external applications) currently send picking information to the WMS through the **lgfpickconfirmation** API.

When messages are sent to the WMS from the API – after basic validations of the data elements are carried out – you can see the messages through the **From MHE Pick Confirmation View** module. If the processing of the record fails, the message is flagged with status of "Failed." Once the messages are marked as failed, there is no way for you to reprocess

the messages. You can use the option to reprocess a failed record in **MHE Pick Confirmation** screen via the action button "Reprocess Selected Records" so that the pick confirmation messages need not be sent again from the MHE.

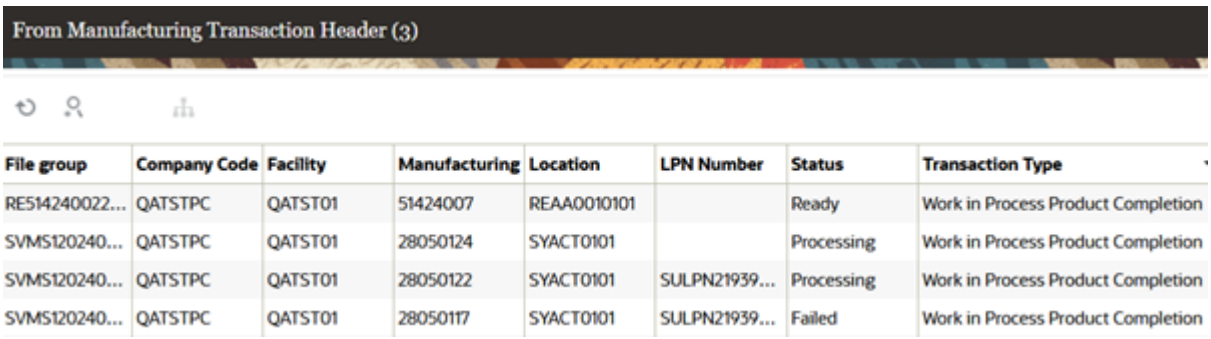
- Select the "Reprocess Selected Records" action button and submit the message for reprocessing for messages in "Failed" status only. Disable the action button if status of the message is other than "Failed".
- Once the message is submitted for reprocessing its status will change to "Processing."
- You will be able to multi select records in "Failed" status and submit for processing. If any of the messages selected do not have "Failed" status, then, do not enable the action button.
- Submitting for reprocessing will invoke the relevant pick confirmation message for normal validation as before.

Note:

- If you select record/s for reprocess with the action code of "Complete" for Reprocessing and if there are other records of action code "Pick"/"Short"/"Close" for the same wave number in status "Ready", then, the system displays the error message "Other messages for same wave number present."
- If you select record/s for reprocess with action code of "Close" for Reprocessing and if there are other records of action code "Pick" for the same wave number/OBLPN Number combination in status "Ready", then, the system displays the error message "Other messages for same wave number or OBLPN number present."

Manufacturing Transaction

You can view manufacturing transaction details including transaction type and status in the From Manufacturing Transaction Header UI. If the item is serial tracked, the UI displays underlying serial number recorded as well.



File group	Company Code	Facility	Manufacturing	Location	LPN Number	Status	Transaction Type
RE514240022...	QATSTPC	QATST01	51424007	REAA0010101		Ready	Work in Process Product Completion
SVMS120240...	QATSTPC	QATST01	28050124	SYACT0101		Processing	Work in Process Product Completion
SVMS120240...	QATSTPC	QATST01	28050122	SYACT0101	SULPN21939...	Processing	Work in Process Product Completion
SVMS120240...	QATSTPC	QATST01	28050117	SYACT0101	SULPN21939...	Failed	Work in Process Product Completion

INVENTORY HISTORY TRANSACTION UPDATES

Once the records are added to the From Manufacturing Transaction Header UI, the associated Ref Codes and Values for the TRAN_ID, TRAN_TYPE and WO-Ops Seq fields will be updated as per the following table for the below impacted Inventory History Transactions (IHTs):

- IHT-2 - Container Consumed
- IHT-4 - Inventory Adjusted pre verification
- IHT-22 - Lock Container - Before ASN Verification
- IHT-23 - Lock Container - After ASN Verification

- IHT-24 - Unlock Container - Before ASN Verification
- IHT-25 - Unlock Container - After ASN Verification
- IHT-29 - Create Allocatable Container
- IHT-49 - Lock Active
- IHT-50 - Unlock Active

ref Code

Field Name	REF Code	REF Value
TRAN_ID (TRA)	ref_code_15	ref_value_15
TRAN_TYPE (TRT)	ref_code_19	ref_value_19
WO-OPS Seq (WOD)	ref_code_20	ref_value_20

The following updates are added for the Expense Destination field:

Expense Destination field

Field Name	REF Code	REF Value
Expense destination (EXD)	ref_code_18	ref_value_18

ATTRIBUTES ADDED TO MANAGE DATA SPANNING ACROSS MULTIPLE PAYLOADS

Due to manufacturing processes, sometimes a single LPN could have more than 1,000 products manufactured (yielding small products like Mouse, Medicine Vials, and so on.) In a scenario like this, the number of records planned per transaction could surpass the OIC Limit.

To address scenarios where data for a particular LPN/transaction comes in multiple payloads, the system has a mechanism to accept data for the same transaction across different payloads and will not initiate the transaction processing until the receive has complete data.

WMS can include a payload with data spanning multiple transactions. Additional, attributes to indicate whether all the records are received or not will be at the transaction level.

The following attributes are visible in the JSON payload:

Attribute	Description
resend_flg	When Inventory Management restarts the transaction at the individual transaction level or work order level, this indicates to WMS whether to process the records or not to handle duplicate transactions.
ready_for_processing_flg	This indicates whether all the records for a particular transaction is sent or not. If there are outstanding records for the same transaction, the value in the payload will be sent as "no", otherwise the value will be sent as "yes".

Attribute	Description
create_hdr_flg	This indicates whether there's a new transaction record creation or an update to an to existing transaction.

- If the transaction has the *ready_for_processing_flg* value set as "No", the corresponding records will be in "**Not Ready**" status.
- If the transaction has the *ready_for_processing_flg* value set to "Yes", then the intermediate record is updated with a status of "**Ready"** and further processing will be initiated.

PROCESS MANUFACTURING TRANSACTIONS AND UPDATES

Once the records are added into the From Manufacturing Transaction Header UI, the corresponding inventory history will be updated once the validations for the records are successful.

For manufacturing transaction records, the location can be drop/reserve/active and for a drop/reserve location, the LPN is mandatory.

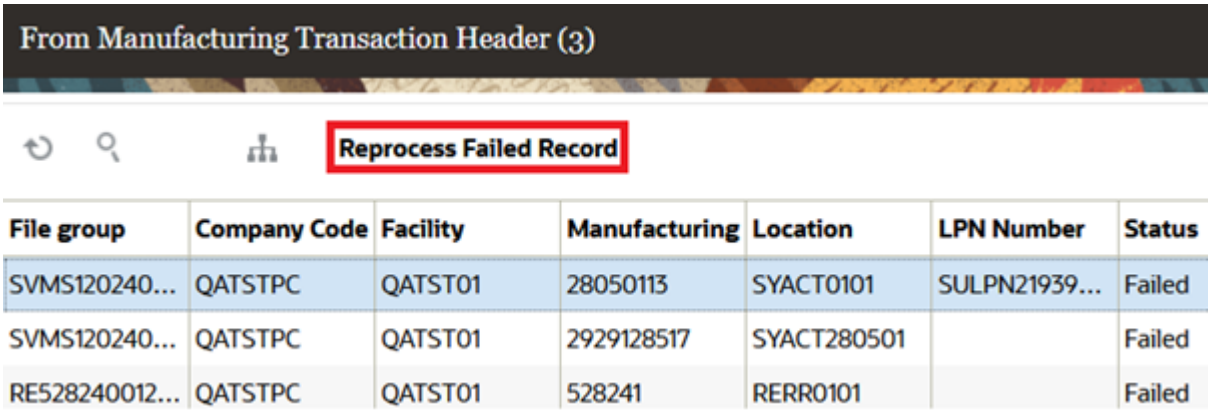
- Once the records are picked up for processing, the system will update the status of the transaction to "**IN-PROCESSING**". Once the updates are successful, the system will update the status to "**Completed/Success**".
- Depending upon the quantity passed updates could differ for the inventory and corresponding serial numbers.

REPROCESS FAILED RECORDS

In certain situations, records sent by manufacturing systems via Inventory Management can fail due to missing items, unnecessary quantities that are present in the application, or corresponding locations that are not configured.

To avoid re-sending failed manufacturing transactions:

1. Select the record from the Manufacturing Transaction header UI.
2. Click **Reprocess Failed Record** action button.



3. The system displays the Records submitted for processing message and updates the transaction records accordingly.

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	Picking occurs	After picking, physical LPNs information is sent.
3	**Induct LPN** (via Mobile 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	Tells you the requirement for SKU quantities by destination facility at the wave level. This output interface sends the data elements required in xml_data or flat_data for sending facility distribution information to MHE.	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.
			Receiving transaction	Parameter generate-distro-message should be set to Yes.
			Distribute LPN	Parameter generate-distro-message should be set to Yes
			IBLPN UI	Generate MHE Distribution message button
To MHE IBLPN Info	Tells you what the requirement is by SKU, physically sending sku, quantity, and what LPN sku is coming on - information to MHE systems. This output interface sends information about the inbound LPN to be distributed by MHE system.	For XML Format ILX For One Line format ILI	**Pick IBLPN**	• 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

Output Interface	Description	Filename	Trigger Points	
				mhe message type for_LGF-Send IB LPN-info-Active Flag= yes
			Move LPN	• 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
			Receiving	• 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

Output Interface	Description	Filename	Trigger Points	
				be of "Alloc Type: Distribute LPN" or "Alloc type: Internal Bulk Pick/Task Type PICKLPN-INTERNL" • 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
			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.

Note: In the **Wave Pick Information** output interface file, the system populates the ship to information (shipto_name, shipto_addr, shipto_addr2, shipto_addr3, shipto_city, shipto_state, shipto_zip, shipto_country, shipto_phone_nbr, shipto_email, and shipto_contact) based on the following:

- If an order is defined with "Ship to Facility Code" on the **Order Header (OrderHdrView)** UI, the system populates the ship to information from respective facility associated with the Ship to Facility Code.
- If "Ship to Facility Code" is not defined for an order on the **Order Header** screen (Customer Order), the system considers the Ship to information from respective Ship to fields (Ship to Name, Ship to Address, Ship to Address 2, Ship to Address 3, Ship to City, Ship to State, Ship to Zip, Ship to Country, Ship to Phone Nbr, Ship to Email, and Ship to Contact) on the **Order Header** UI. (Irrespective of whether the customer information is same or not as ship to information on the **Order Header** UI)
- If ship to fields are not defined for a customer order, the system considers the the Ship to information from the customer details (Customer Name, Customer Address, Customer Address 2, Customer Address 3, Customer City, Customer State, Customer Zip, Customer Country, Customer Phone, Customer Email, and Customer Contact) on the **Order Header** UI.

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 the **Documentation tab,** then click the link under **Current Documentation**.

View Packing Confirmation Messages

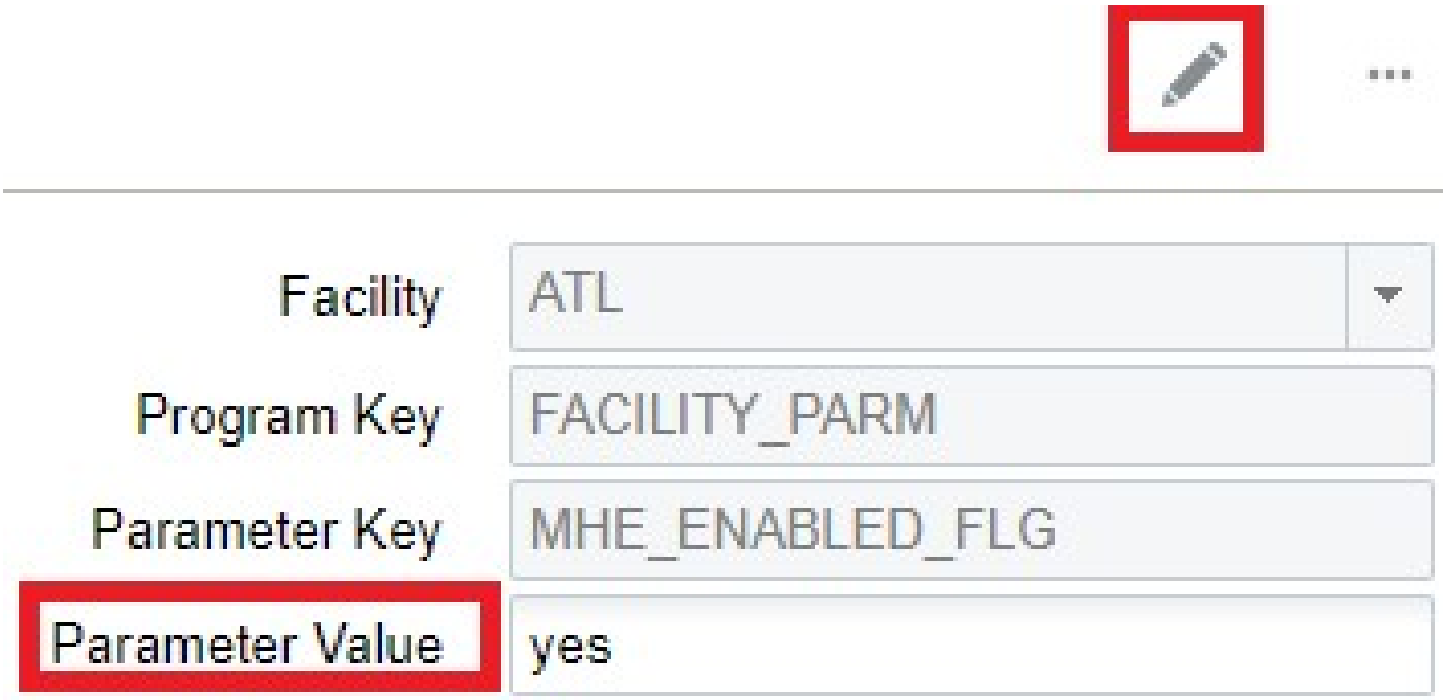
You can view the packing status messages coming from Put to Light or Sortation MHE systems in the **From MHE OBLPN Hdr** UI. You can also click details to drill down to see additional order detail (such as packed quantity) in the **From MHE OBLPN Detail** UI.

Configuration

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

Facility Parameters

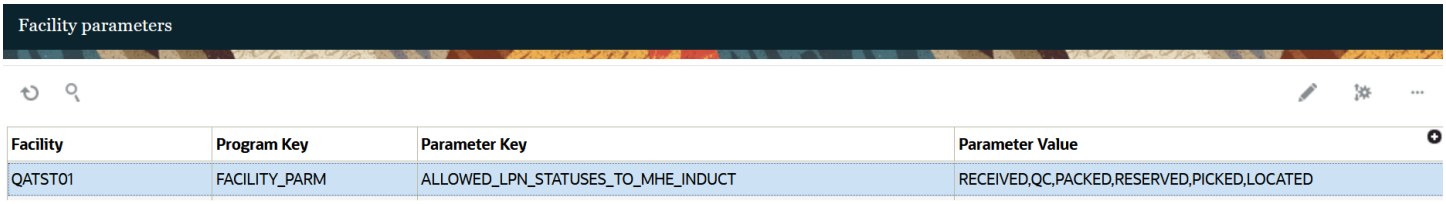
1. Search for the parameter key MHE_ENABLED_FLG.
2. Click **Edit**, and set the Parameter Value to **Yes**.



- 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:

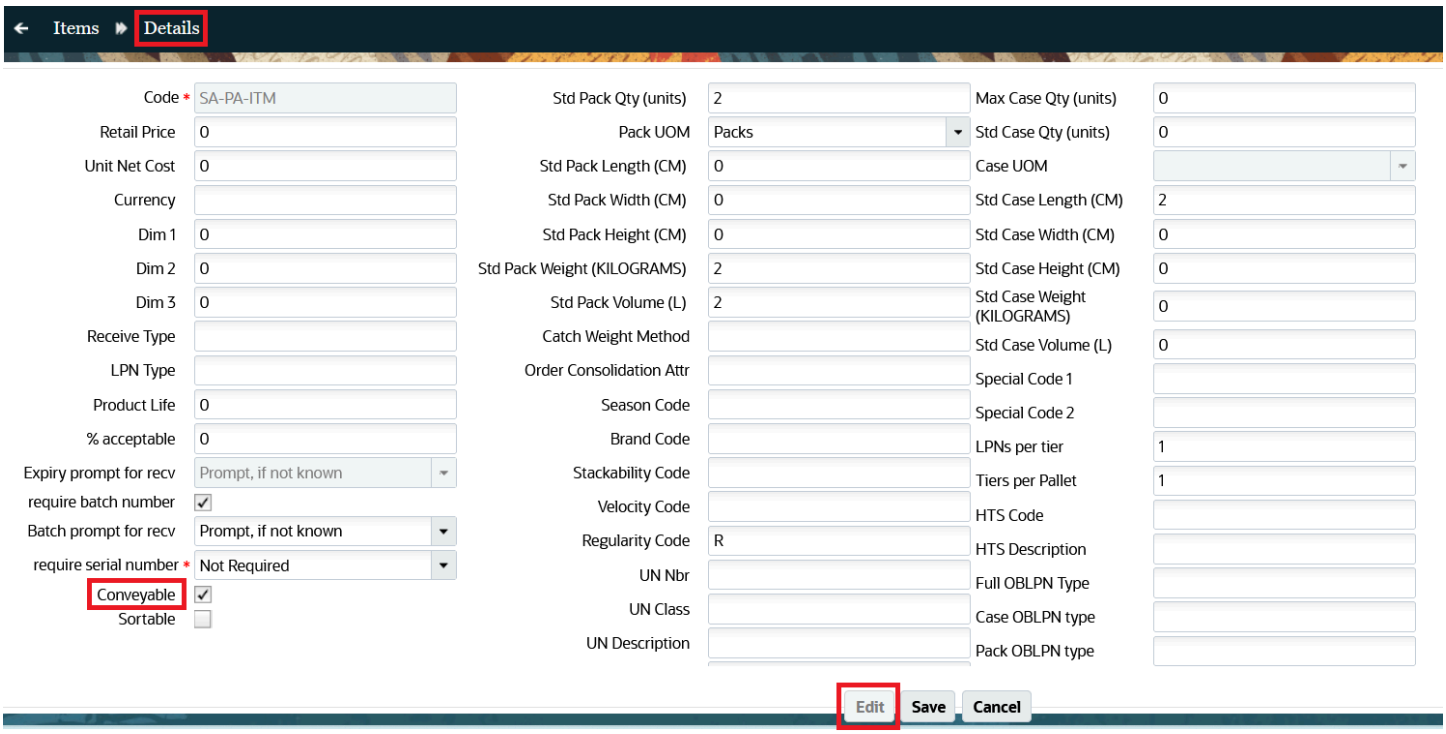
RECEIVED,QC,PACKED,RESERVED,PICKED,LOCATED



Items

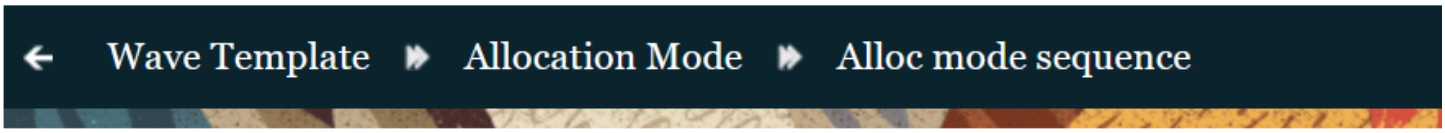
Certain items must be configured in order to be accepted in MHE.

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



MHE in Wave's Allocation Mode Sequence

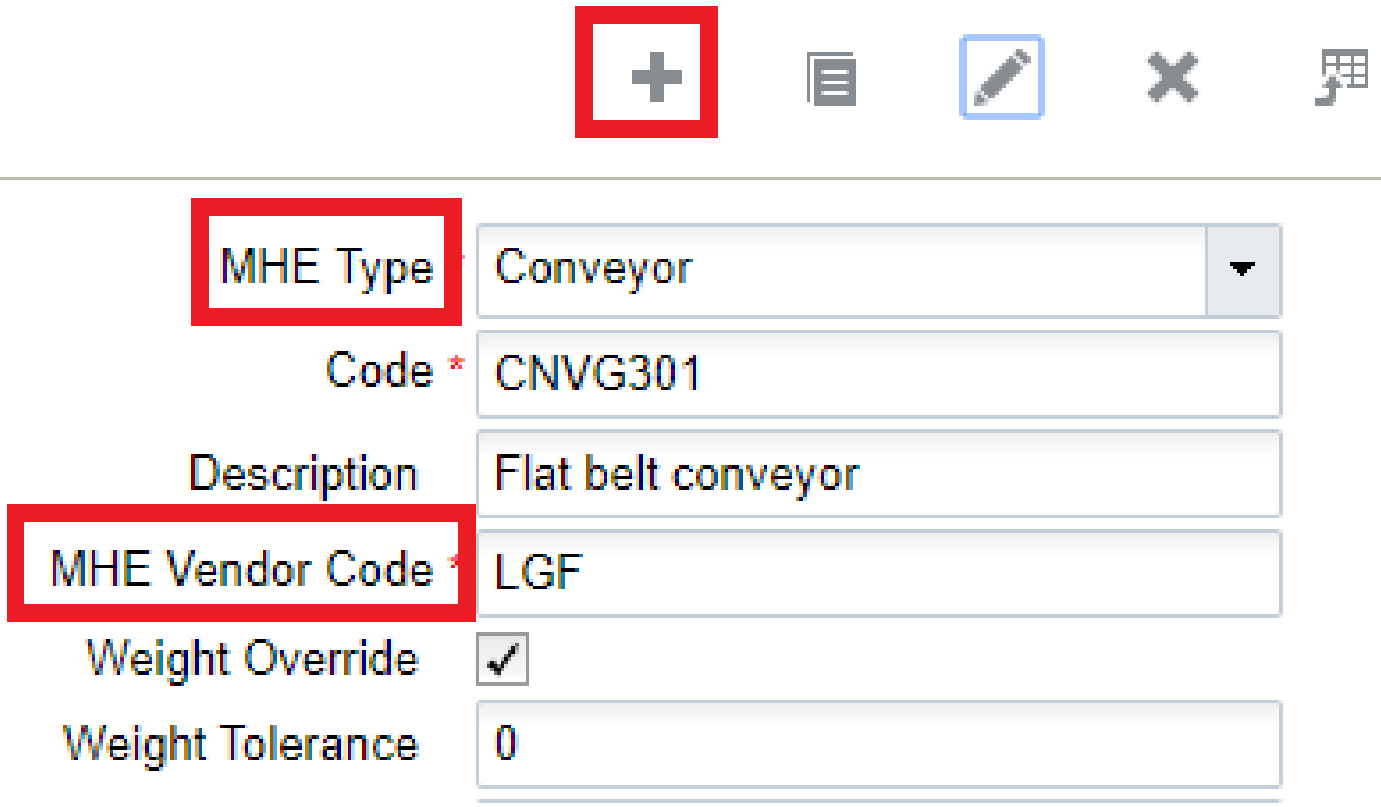
When you are creating an allocation mode in the Wave Template, you need to input the MHE system needed for the allocation. If picking is happening from MHE, then the MHE system has to be populated on the allocation mode sequence.



Allocation Mode	Sequence Nbr	Location type	MHE System	Alloc Distribution Mod
BH_RES	1	Reserve	MHE-PUTOLIGHT	Distribution No residuals

MHE System Configuration

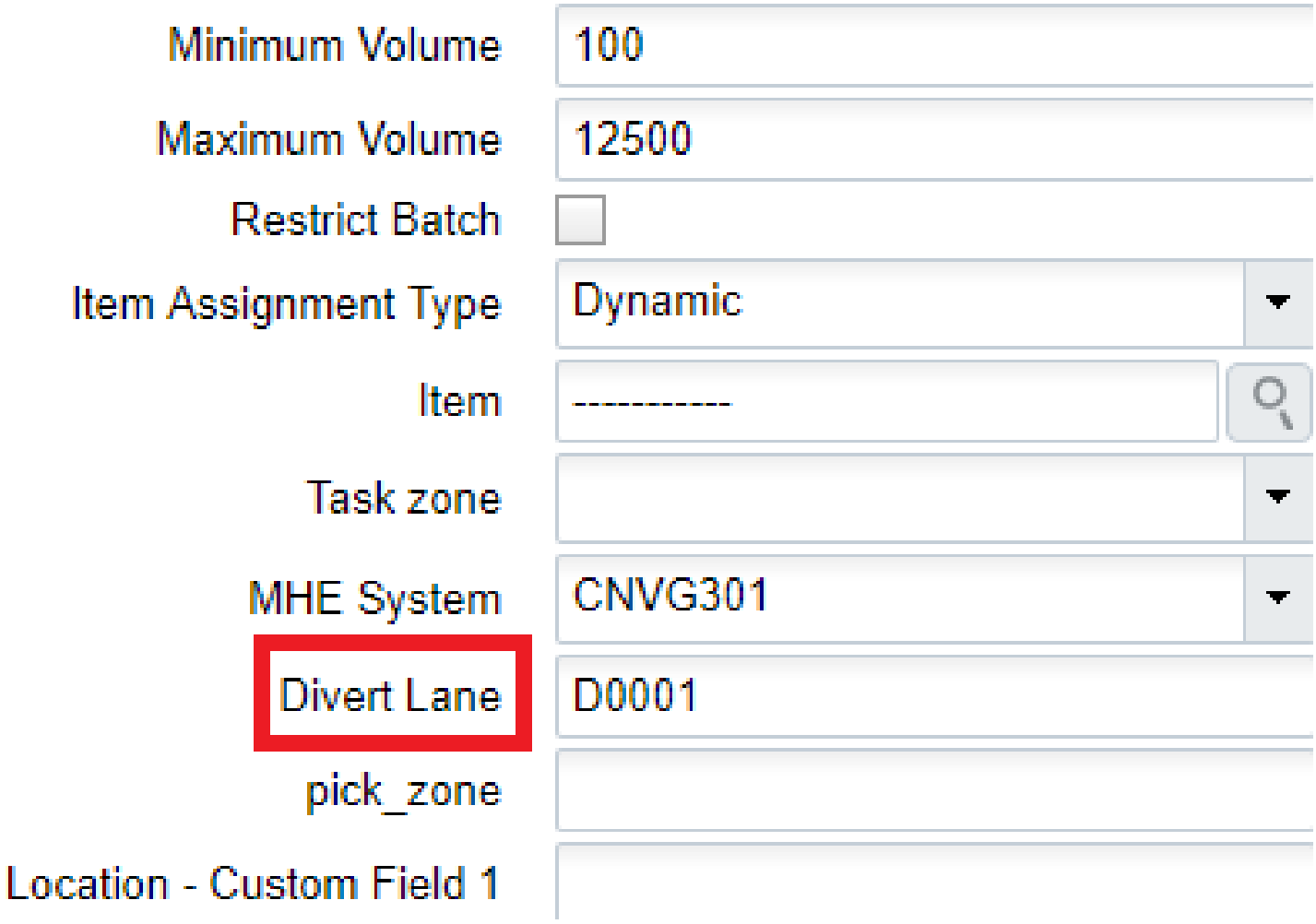
- From the **MHE System** screen, create a record with the MHE Type = Conveyor and MHE Vendor Code = LGF:



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:



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:

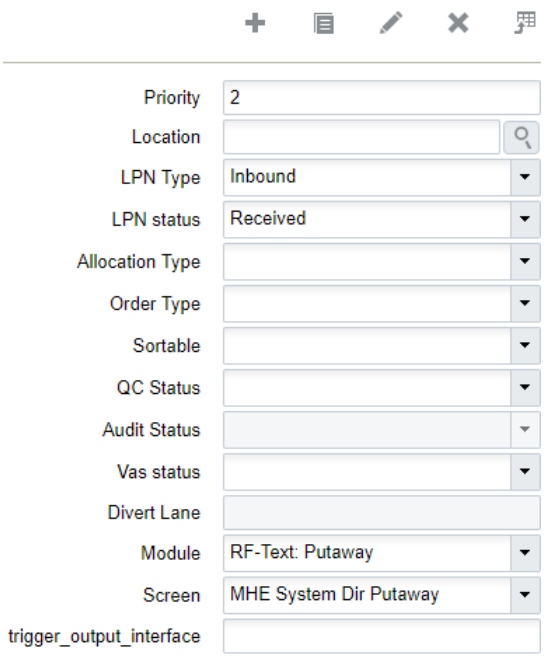
1. Induction of LPN (Mobile or API)
2. Route Instruction for Rule firing (pre-configured rules)

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)

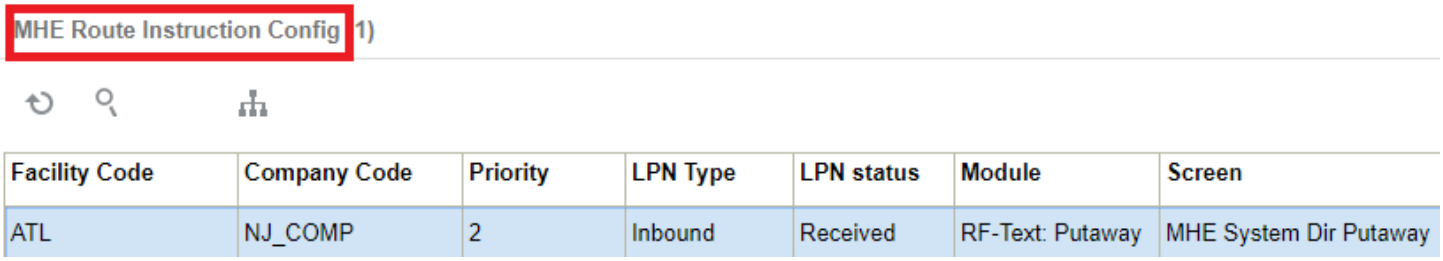
Set Up Route Instruction Rules

Divert instructions can be configured in the Oracle sWMS 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:



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



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:



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/`

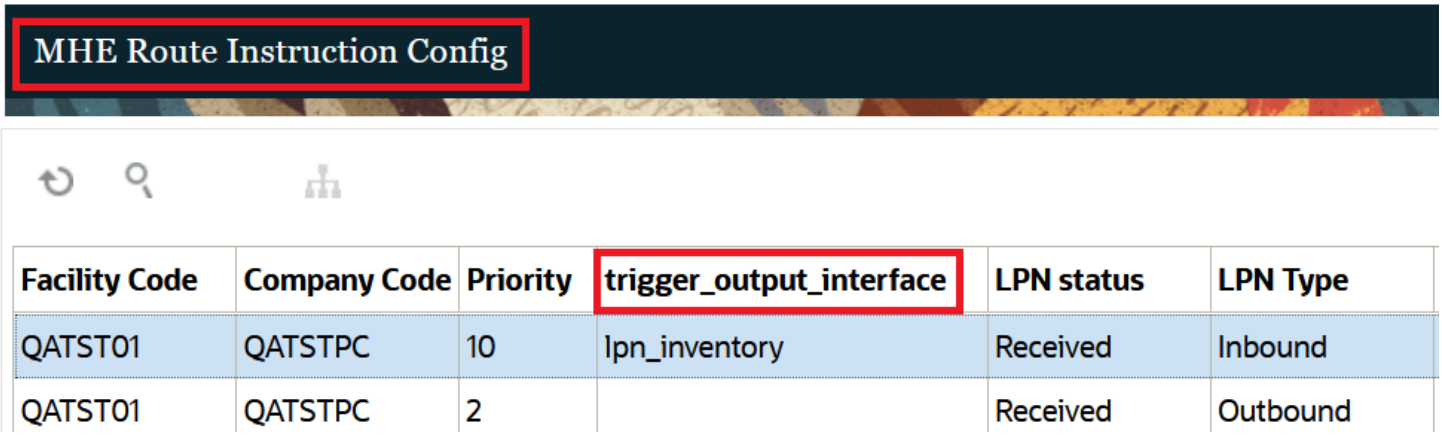
Assumptions

- 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:



Facility Code	Company Code	Priority	trigger_output_interface	LPN status	LPN Type
QATST01	QATSTPC	10	lpn_inventory	Received	Inbound
QATST01	QATSTPC	2		Received	Outbound

Configure calling Directed Putaway

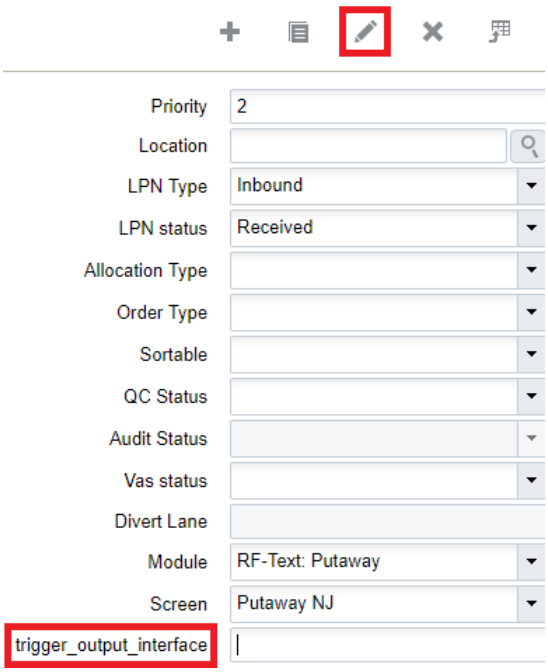
1. To configure Directed Putaway with MHE:From the **MHE Route Instruction Configuration** UI, create a new Route Instruction rule or select an existing Route Instruction rule.
2. Once you have selected LPN Type and LPN Status, from the **Module** drop-down, select **Putaway**.
3. From the **Screen** 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 Mobile or API, the system will check the configuration and generate the LPN_INVENTORY message or the OBLPN_SHIPPING_INFO.

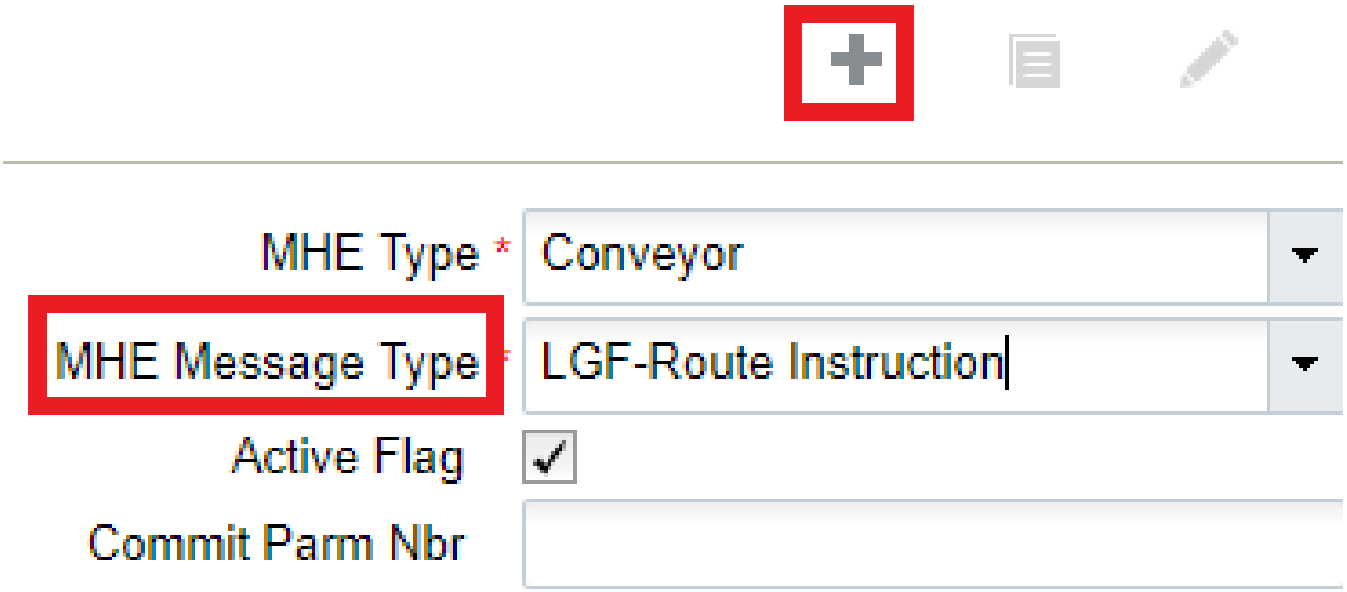
From the **MHE Route Instruction Configuration** screen – update the **trigger_output_interface** field with either LPN_INVENTORY message or the OBLPN_SHIPPING_INFO



Message Configuration

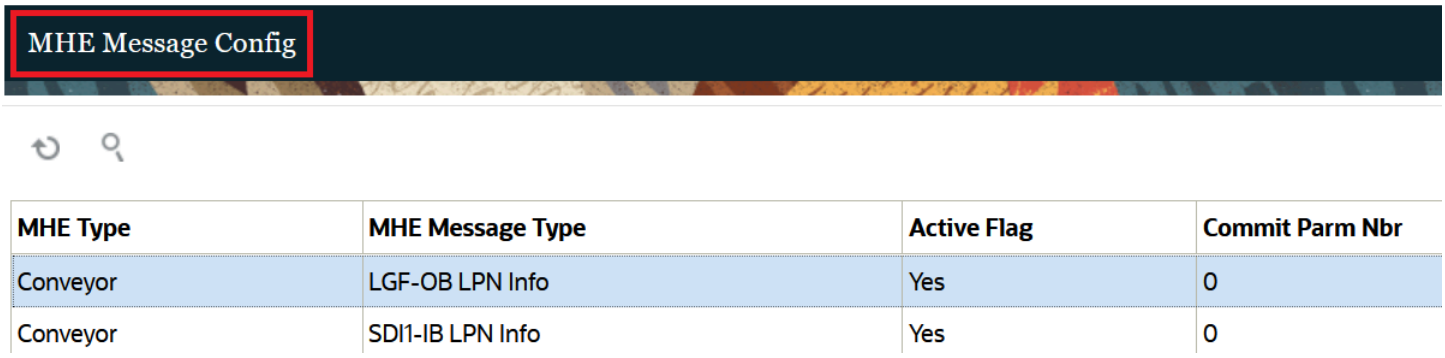
There are various types of MHE Message types you can configure from the **MHE Message Confirmation** UI.

1. In order to setup MHE message configuration for Route Instruction, go to the **MHE Message Configuration** UI.
2. From the **MHE Message Type** drop-down, select “LGF-Route Instruction”.
3. Click **Save**.



1. Next, to setup MHE message configuration for Route Confirmation, go to the **MHE Message Configuration** UI.

2. Set up MHE message configuration with the MHE message type “LGF-Route Confirmation” for Route Instruction output file generation:



MHE Type	MHE Message Type	Active Flag	Commit Parm Nbr
Conveyor	LGF-OB LPN Info	Yes	0
Conveyor	SDI1-IB LPN Info	Yes	0

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.

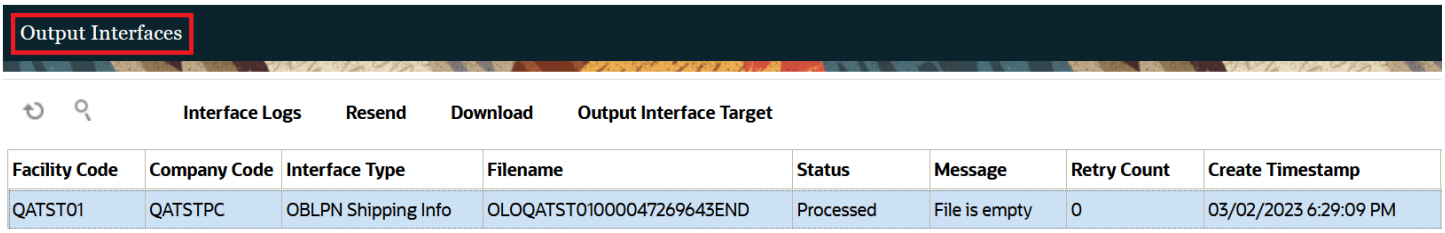
The following is an example of how to launch the mobile Induct LPN and scan the received LPN and Drop location to divert. Alternatively, you can use the Induct REST API:

1. Launch the mobile Induct LPN transaction
2. Scan or enter the LPN number.

   On success, the drop location “LPN successfully inducted” message displayed.

Example of the Output file Generated

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



Facility Code	Company Code	Interface Type	Filename	Status	Message	Retry Count	Create Timestamp
QATST01	QATSTPC	OBLPN Shipping Info	OLOQATST01000047269643END	Processed	File is empty	0	03/02/2023 6:29:09 PM

File content:

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

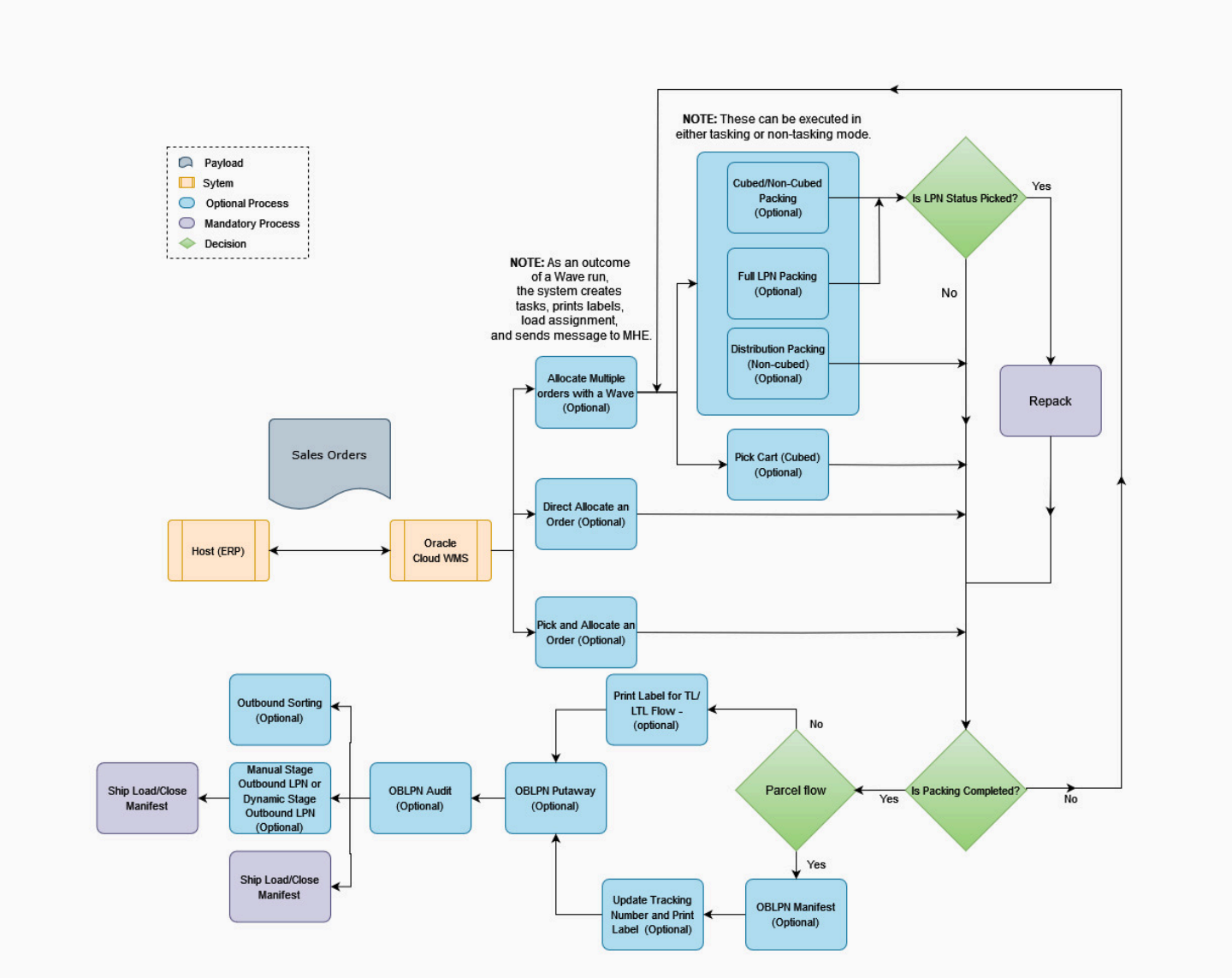
4 Outbound

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.

The outbound flow in Oracle Cloud WMS streamlines efficient and accurate order fulfillment. It involves multiple processes, including order creation, wave planning, picking, packing, shipping confirmation, and inventory updation.

The following flow chart provides an overview of the Outbound process:



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
- Repack
- Pack OBLPN
- Allocate for XDOCK
- Direct Allocation
- Pick and Allocate
- Pick IBLPN
- 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 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.

Initiate Manual Wave Run from Order Header

You can manage your orders more efficiently by running a wave directly from the Order Header UI. A 'Run Wave' button on the Order Header (OrderHdrView) UI simplifies the process. With this feature, you can:

- Select specific orders or order details with ease
- Run a wave without switching between UIs
- Run a wave for all order details from a single order header record

The 'Run Wave' button is available on both the Order Header and Order Details UI. To use this feature, you need the 'Order Header/Run Wave' permission (for non admin roles). The button is enabled for Order/Order detail records with 'Created' or 'Partly Allocated' status. To run a wave, simply click the 'Run Wave' button, select a wave template, and initiate the wave.

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	PO#1
[H2]	1	CREATE	THK01										10	0	
[H2]	2	CREATE	THK03										15	0	
[H1]	POSN100302	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#2
[H2]	1	CREATE	THK04										10	0	
[H2]	2	CREATE	THK02										15	0	
[H1]	POSN100303	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#3
[H2]	1	CREATE	THK03										10	0	

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 “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.

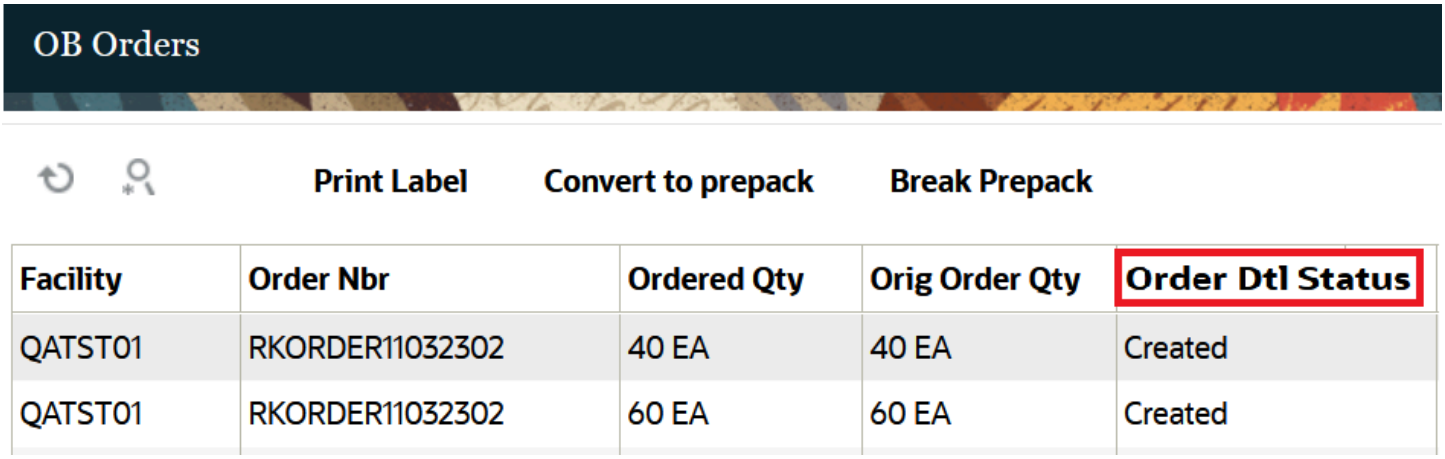
Update, Filter, and Track Order Detail Status

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.

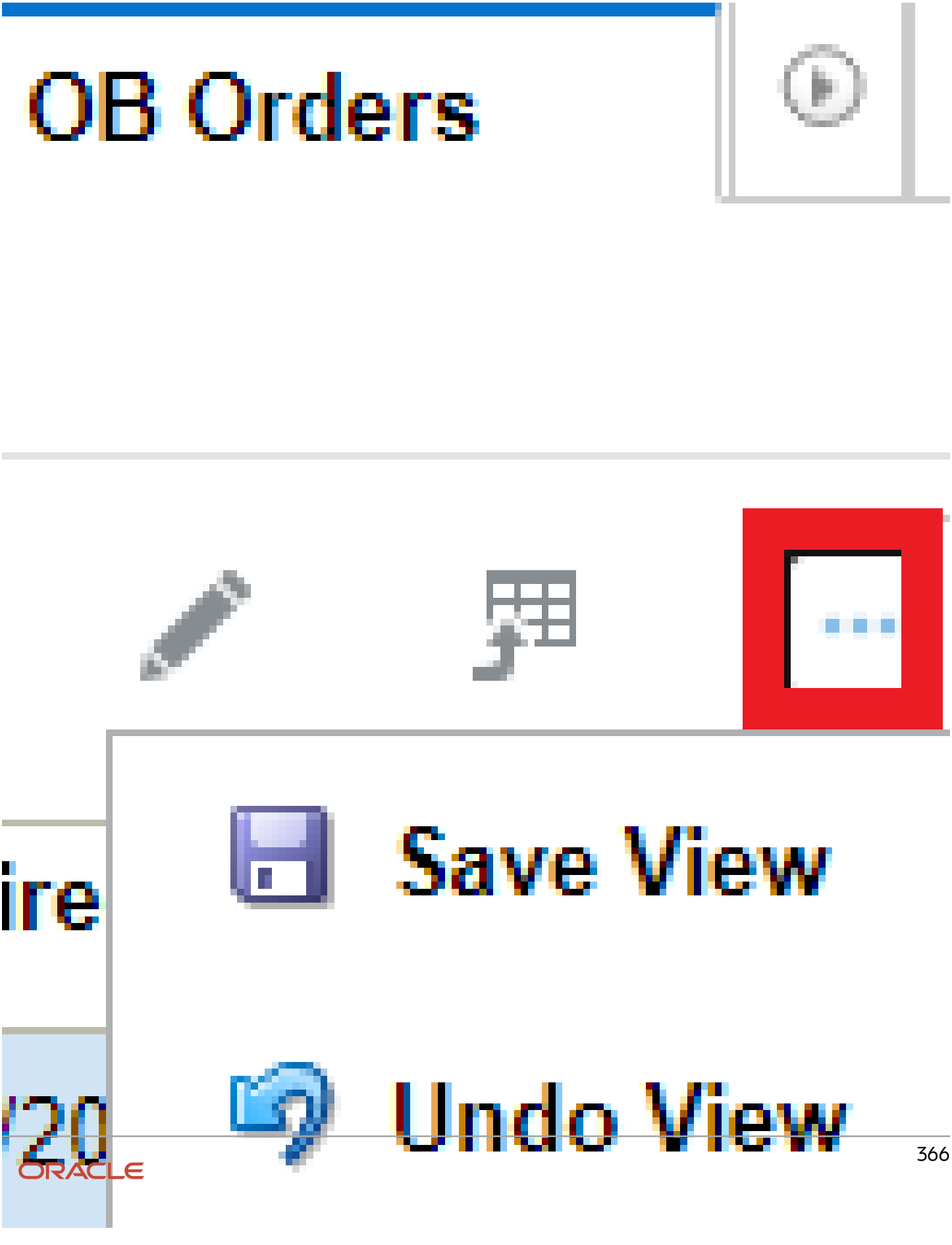
In order to view the From and To order details status from the **OB Orders** or **Order Headers** UI:

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.



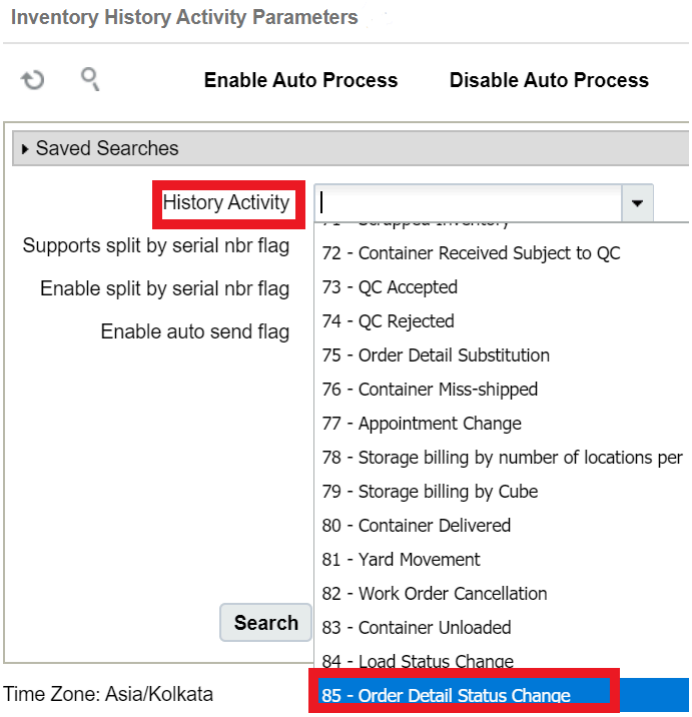
Note: to make the **Order Dtl Status** column visible, you must add it from either **Order Header View** >> **Order Detail**, or from the **OB Orders** UI. You can save your updated view by clicking **Preferences** and **Save View**.


OB Orders
Save View
Undo View

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:



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

View Order Detail Status in Manual Wave UI

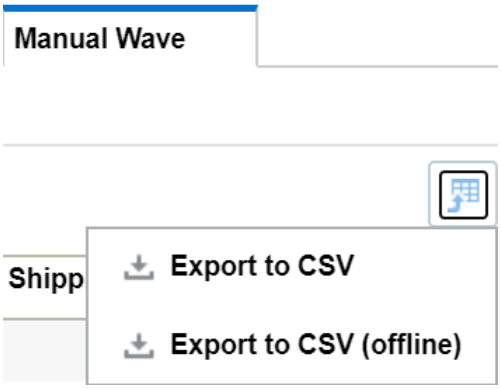
From the **Manual Wave** UI, you can view **Order Detail Status** in **Created** or **Partly Allocated** status and also the shipping tolerance value.

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.



Modify Ordered Quantity for Allocated or Partly Allocated Orders

While adjusting inventory within the existing orders (Allocated/Partly Allocated) to remove or add specific items, you can modify the ordered quantity for “Partly Allocated” and “Allocated” orders in the **Order Detail** UI. This gives you greater flexibility to update the ordered quantity, based on your requirements. Also, during inventory shortages or backorders, to cancel, and add new Order lines for an order, you can change the order lines after allocation.

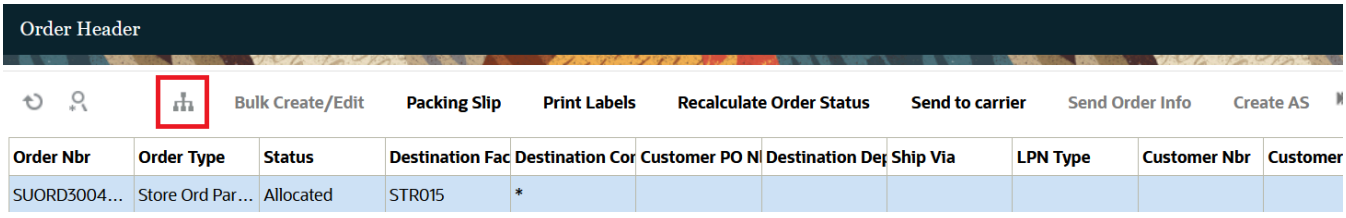
To modify the ordered quantity for an Allocated or Partly Allocated order, do the following:

1. Go to the **Order Header (OrderHdrView)** UI.
2. Select an order in “Allocated” or “Partly Allocated” status.

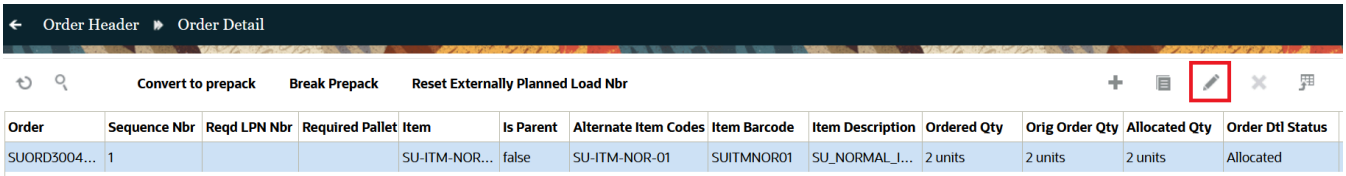
   Note:

   - You can also update ordered quantity for orders that are in created status.
   - For a partly allocated order, you can increase or decrease the ordered quantity. If the updated ordered quantity equals to the allocated quantity, then the system updates the order status to Allocated or other status based on the order detail status. Note that, you are not allowed to decrease the ordered quantity less than the allocated quantity.
   - For an allocated order, you can only increase the ordered quantity. If you update the ordered quantity more than the allocated quantity, then the system updates the order status to “Partly Allocated”.

3. Click Details action button to navigate to the **Order Detail** screen.



4. In the **Order Detail** screen, select an order detail record to update ordered quantity and click Edit action button.

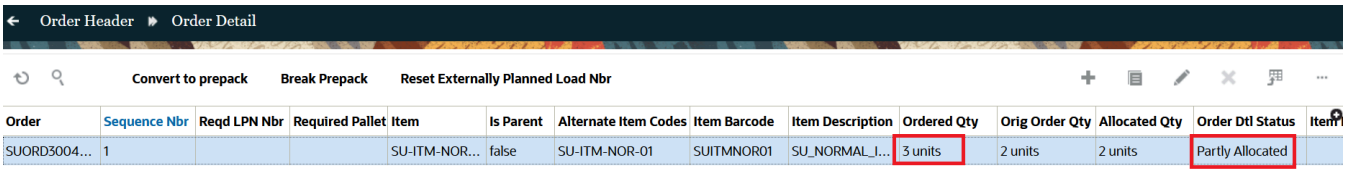


5. Update the Ordered Quantity based on your requirement.
6. Click **Save**.

Note:

- Updating ordered quantity is not supported for transportation split orders. The system prompts you with an error message “Cannot modify order quantity which has gone through transportation split.”
- On updating ordered quantity less than the order’s allocated quantity, the system prompts with an error message “Cannot modify order quantity to less than allocated quantity”.
- If the order detail is populated with the “Requires serial Nbr” field, the system does not allow you to update the ordered quantity for a serial tracking item . If you proceed further, the system errors “Cannot modify order quantity for order detail having required serial number”.

The system updates the Order Detail status based on the updated Ordered Quantity as shown in the figure below:



And the **Order Header** screen displays the updated order status based on the order detail status.



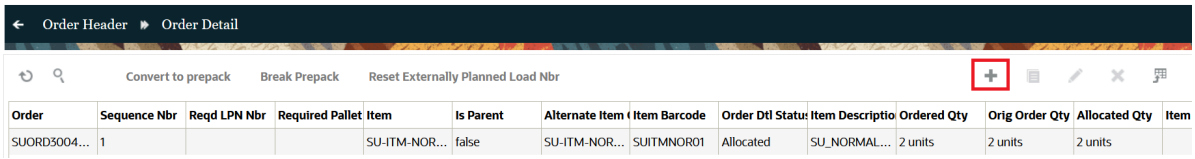
To add or delete order details for an Allocated or Partly Allocated order, do the following:

1. Go to the **Order Header (OrderHdrView)** UI.

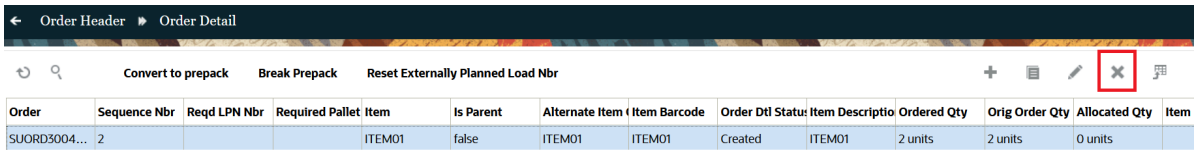
2. Select an order in “Allocated” or “Partly Allocated” status.

> **Note:**
> - You can also add or delete order lines for orders that are in created status.
> - For a partly allocated order, you can add or delete order lines. If you delete an order line and made order’s ordered quantity equals to the allocated quantity, then system updates the order status to Allocated or respective other status based on the order detail status.
> - For an allocated order, you can only add a new order line. If you create a new order line, then system updates the order status to “Partly Allocated”.

3. Click Details action button to navigate to the **Order Detail** screen.
4. In the **Order Detail** screen,
   - To add a new order line:
     i. Click Create action button.



     ii. On the create pane, based on your requirement, add details and click **Save**.
   - To delete an order line:
     i. Select the order line to delete and click Delete action button.



> **Note:** You can delete the order detail only if the if the order detail is unallocated.

     ii. Select the “Reason Code” in the Delete pop-up and click **Submit**.

> **Note:** On deleting an order detail having transportation split and in “Created” status with more than one split order details with allocations, after entering the Reason code prompt, the system displays an error message “Cannot delete order detail which has gone through transportation split.”.

The order status will be updated in the Order Header based on the inclusion or exclusion of the order details.

Navigate back to **Order Header** screen and observe that the Order Status changed based on the inclusion or exclusion of order details.

When you update the ordered quantity or delete an order detail, the system updates the following Inventory History Transactions in the **Inventory History** UI:

IHT Transaction	Trigger Point
20 - Order Status Change	When the order status changes from Partly Allocated to Allocated / Packed / Picked / Loaded / Shipped or Allocated to Partly Allocated.
85 - Order Detail Status Change	When the Order Detail status changes from Partly Allocated to Allocated / Packed / Picked / Loaded / Shipped or Allocated to Partly Allocated.
27 - Order Cancellation	When an existing or new order detail is deleted.

To support the **Order Header** and **Order Detail** UI updates, the Order Interface and Order entity for **INIT_STAGE_INTERFACE** API enables:

- Add a new inventory line and delete an unallocated inventory line.
- Update the ordered quantity for Partly Allocated and Allocated orders.

Note:

- On updating ordered quantity less than the order's allocated quantity in the **Order Interface**, the system alerts you with an error message "Cannot modify order quantity to less than the allocated quantity for <SKU> with order sequence <sequence number>.".
- On updating ordered quantity for a transportation split order via the **Order Interface**, the system alerts you with an error message "Order <Order Number> with sequence number <sequence number> is part of OTM transportation split, cannot modify order qty.".

Enhancements to Predefined Integration to Support Quantity Changes for Partly Allocated/ Allocated Orders

You can modify order quantities even when an order has reached the **Partly Allocated** or **Allocated** stage, if the items haven't been packed. This provides greater flexibility in managing orders, particularly for systems using **WMS Prebuilt Integration**.

You can lock and unlock orders using the **Order Lock API** and **Order Unlock API**, perform updates, and unlock the order to continue processing.

Note: The change cannot be made for orders that have already been picked or packed. This helps the shipping process remains error-free and avoids disruptions caused by changes at later stages.

To enable and update order quantities for partly allocated or allocated orders, do the following:

1. Confirm that the order is in the **Partly Allocated** or **Allocated** stage.
2. Check if the items in the order have not yet been packed.
3. Use the **Order Lock API** to lock the order and modify the order quantities as required.
4. Once the updates are complete, use the **Order Unlock API** to release the order for further processing.

Change Management (4-Part Key Fields) on an Order

The system allows you to update orders in WMS even when they are in allocated or partly allocated status, accepting the quantity updates performed in Fusion Order Management via 4-part key fields (ERP Source Header Reference, Source System Name, Source Shipment Reference, and ERP Source Line Reference).

In scenarios where a partially shipped order or back order (created due to shorting) undergoes a change (quantity is increased), the system allows you to update the order, even if the order is already allocated or partly allocated.

Note: This is allowed only via the **Order Patch** API and **Order** Interface.

Example:

Consider the following **back order** ORD02 is created for 2 units and allocated with 1 unit.

Order Number	SKU	Order Quantity	Allocated Quantity	Shipped Quantity	Order Status	ERP Source Line Reference	Source Ship Reference
ORD02	SKU01	2	1	0	Partly Allocated	1.1	4.1

After increasing the back order quantity from 2 units to 5 units in the Order Management, the system creates a new order with a new ERP Source Line Reference value for both the back order and the order with the increased quantity. The following are the updated order details:

Back Order

Order Number	SKU	Order Quantity	Allocated Quantity	Shipped Quantity	Order Status	ERP Source Line Reference	Source Ship Reference
ORD02	SKU01	2	1	0	Partly Allocated	1.2	4.1

New order due to the back order quantity change

Order Number	SKU	Order Quantity	Allocated Quantity	Shipped Quantity	Order Status	ERP Source Line Reference	Source Ship Reference
ORD03	SKU01	3	0	0	Created	1.2	4.1

Allocate and Pick Specific Serial Numbers on an Order

To help support warehouse scenarios where there is a recall or specific serial numbers to be repaired/refurbished, you may need to place sales orders with specific serial number(s). Warehouse Management supports bringing in sales orders stipulating one or more required serials. This capability empowers you to proactively handle product returns and repairs and fulfill inventory with specific serial number as stipulated on the order detail.

Only Deallocate on Short Flag

When the only_deallocate_on_short flag is set to yes, the system now allows interfacing an order with required serial number(s).

When you edit the order type on the order with required serials, with another order type (that has this flag set to False), the system will display an error when you save.

Interfacing Required Serial Numbers

Now, when external systems pass an order with one or more order lines and the corresponding required serial numbers are also passed, the system will populate the required serial numbers in the Order Inquiry UI.

Note: Required serial numbers are supported only in JSON format.

Associate Required Serial Number

From the **Order Header -> Details** UI, you can add and associate required serial numbers for corresponding order lines (when using a serialized item with end to end tracking) using the new Required Serial Number column and hyperlink.

- The **Required Serial Number** hyperlink is enabled only if:
  - the underlying company tracks serials end to end.
  - the selected order detail item has required serial number tracking enabled.
- The application displays an error message when you add new serial numbers or edit the serial number for corresponding order detail.

Required Serials During Allocation

During a FULL LPN allocation flow, Wave allocation will consider order details with required serial number first, before allocating the order lines that have the required serial number(s) not populated for the following allocation types:

- Full LPN
- LPN Units - Allocation Distribution Mode is 'No Distribution'

Regarding Serials during a **Picking Wave Allocation**, note the following guidelines:

- Picking Wave supports Full LPN Allocation's flow and Unit Picking Allocations flow only for orders that include required serials.
- Order details with required serial numbers will be allocated first compared to orders without required serials numbers.
- If for any reason the order quantity and the required number of serials do not match (number of serials is less than the order quantity) then do not consider the order for allocation.
- Distribution flows will be blocked for orders that contain required serial numbers.

Note: If Orders without required serials and orders with required serials are part of different waves, the application could potentially pick up inventory with serials that are reserved for a different order. This behavior needs to be considered when orchestrating the flows with required serial numbers.

Picking

With the allocation of required serials, the user needs to know the specific serials that were allocated for the order and that it needs to be specifically picked against that order.

You can then specify the quantity to pick for each LPN. The following Picking transactions now support required serials:

- Pack LPN (rf.outbound.cwrfpacklpn)
- Pack NC (rf.outbound.cwrfpackncactiveorder)
- Direct Allocation (rf.outbound.cwrfdirectallocation)

- Pick Confirm API

Wave Template Flags 'Cancel Unallocated' and 'Cancel Partly Allocated'

The following table shows the behavior for removing serials depending on the following flags:

Flag	Behavior
Cancel Fully Unallocated and/or Cancel Partially Unallocated	When set on the Wave template, the system removes the unallocated serials from the order detail along with the other existing updates related to cancelling unallocated order details.
Cancel partially unallocated and Cancel fully unallocated	For Movement Request, when set on the replenishment template, when the order details are cancelled, the required serials not allocated for that detail will be removed.

Replenishment

Similar to the picking wave, during the replenishment wave also, first, the order details with the required serials should be considered for replenishing the destination location, then the other order details without required serials populated, are considered.

Order details for required serials will now be considered during:

- Standalone Replenishment - (REPLEN_CS_PK_UNITS mode, UOM = Units)
- Mobile Distribute Replenishment - (rf.inbound.cwrfdistlpnreplen)

Ignore Serials During Wave During Replenishment with a Picking Flow

The system now ignores the order details with required serials in the wave for replenishment allocations.

- The system also ignores the inventory containing the required serials in the LPN/location, i.e., for the required serials of the order details within this wave
- Regardless of the replenishment mode selected, (for example, Full LPN, Cases Replenishment or Consolidate Replenishment) the above behavior applies when replenishment with picking is configured.

The following table details the additional transactions that will ignore serials and lists the associated scenarios:

Transactions	Scenario
Consolidation Replenishment (Mode 3) **NOTE:** Consolidation and Distribution flag is set to true.	System ignores the order details with required serials, in the wave, for replenishment allocations.
RF IBLPN Pick for Consolidation Replenishment	• While picking for the order without a required serial, the system errors out, when user scans a required serial. (safety check). • While picking for non required serials, substitution does not steal the inventory with required serials for an Order >Created and < Shipped status.
Consolidation Distribution (Allocation Distribution Mode for Consolidate and Distribute)	System ignores the order details with required serials, in the wave, for allocating against the order.

Transactions	Scenario
Distribution with and Without Residuals (Allocation Distribution Mode as Distribution with residuals (or Distribution, no residuals)	For these two modes of distribution, the order details with required serials are ignored for allocation.
Mobile Repack OBLPN	• Mobile device does not allow scanning a 'From OBLPN' linked to required serial allocations. • While picking for the order without a required serial, system errors out, when user scans a required serial.
Xdock	The system checks if the order has required serial numbers present/specified, then should skip performing XDOCK to those order details.
Distribute LPN	The system checks if the order has required serial numbers present/specified, then should skip performing distribution to those order details.

Additional System Checks for Required Serial Numbers

For the following transactions, the system will check to see if the serial required for any order has a required serial on it:

- Cycle Count (rf.inbound.cwrfcyclecountlocn and rf.inbound.cwrfcyclecountiblpn)
- Pick Cart (rf.outbound.cwrfpickcart)
- Outbound Audit (rf.outbound.cwrfauditlpnplt)
- Pack OBLPN from IBLPNs (rf.outbound.cwrfpackoblpnfromiblpn)
- Pick IBLPN (rf.outbound.cwrfpickiblpn)
- Split IBLPN (rf.inbound.cwrfsplitcntr)

Note: If there is a required serial, the system will display an error message. If there is not a serial number, the transaction will proceed.

Substitution - Allocations with Required Serial Numbers

For allocations with required serials numbers, the system will prevent substitutions in the following transactions:

- Pick Confirm API (Units)
- Full LPN Transactions (Pack OBLPn)
- Non-cubed Picking transactions (PackNCActive Order)
- Full LPN API
- Replenish Full LPN (rf.inbound.cwrfreplenlocn)

Allow Substitution during RF IBLPN Pick for Consolidate Replenishment

When handling an INTERNAL-PICK task, you can perform substitution of IBLPNs during the **IBLPN Pick for Console Replenishment** operation (module: rf.inbound.cwrfpickiblpnreplen) ensuring better control over batch and expiry items. This helps you in managing inventory replenishment tasks, especially during time-sensitive or batch-specific items.

The substitution process includes updated validation messages to help you navigate the substitution of IBLPNs and reduces any potential errors.

Additionally, the screen parameter, **req-lpn-sub-validations**, you can decide whether to enforce validation based on batch numbers and expiry dates during substitution. This flexibility ensures that items requiring special handling, such as those with expiry dates, are correctly managed.

The **req-lpn-sub-validations** parameter offers four options, which allow you to define the level of validation required during the substitution process:

- **All**: Both batch number and expiry date are validated during substitution.
- **Batch**: Only the batch number is validated.
- **Expiry**: Only the expiry date is validated.
- **None**: No validations are enforced during substitution.

Note: By default, this parameter is set to **<Blank>** for all existing screens. However, you can adjust it based on specific requirements to ensure smooth and accurate substitution during the **Mobile Pick IBLPN** transaction process.

Substitution during the **IBLPN Pick for Console Replenishment** process is only possible when the **confirm-lpn** screen parameter is set to **Yes**. This setting ensures that the system confirms the LPN being processed, providing a safeguard against invalid substitutions.

During the picking process, if an IBLPN that does not match the prompted LPN is scanned, the system will display the following messages based on the situation:

1. **Message 3177**: If the scanned IBLPN is from the **same pick location**, the system will prompt, 'Do you want to substitute LPN Number %s?' This gives the you an option to confirm the substitution.
2. **Message 3178**: If the scanned IBLPN is from a **different pick location**, the system will prompt, 'Do you want to substitute LPN Number %s from a different location?' This message ensures that you are aware of the location discrepancy before confirming the substitution.

Note: These messages ensure that only valid substitutions are made based on location and other parameters.

You also have the option to disable these messages entirely to configure substitution message warnings that are unnecessary.

Block and Unblock Shipping for Multiple Orders on Order Header

You can use the Order Header UI to block or unblock shipping for multiple sales orders at one time. This helps warehouse supervisors manage large order volumes without opening and updating each order separately. You can use this feature when orders must stay on hold, such as school orders that cannot ship before a term starts, embargoed orders, or orders affected by carrier or route issues. When the hold no longer applies, you can remove the shipping block from eligible orders in the same screen. The Order Header UI includes two actions:

- Block Shipping
- Unblock Shipping

You can select one or more orders and update the Shipping Blocked flag in a single action. When you apply the shipping block, WMS prevents the packed LPNs for those orders from being loaded and shipped. When you remove the shipping

block, WMS releases the hold so the orders can continue through the shipping process. After each action, WMS shows how many orders it updated out of the total selected. If some orders fail validation, you can view the reason in the message details.

Before you begin, ensure you have:

- Select orders that are still eligible for shipping block updates.
- WMS does not apply or remove the shipping block for orders that are already Shipped or Canceled.
- For removing a shipping block, WMS also checks whether the order has an active replacement order. If a replacement order exists and is not canceled, WMS does not remove the shipping block from the original order.

Apply Shipping Block to Multiple Orders

1. Open the Order Header UI.
2. Search for the orders that you want to place on shipping hold.
3. Select one or more orders.
4. Click Block Shipping. Review the confirmation message.

WMS applies the shipping block to all eligible selected orders. If only some orders are eligible, WMS updates those orders and shows a message such as “Shipping block applied for X orders out of Y orders selected”.

To understand why any order was not updated, open the message details. For example, WMS may show that an order is not in a valid status for applying a shipping block.

If all selected orders are Shipped or Cancelled, WMS does not run the update and shows that all selected orders are not in a valid status for applying a shipping block.

Remove Shipping Block from Multiple Orders

1. Open the Order Header UI.
2. Search for the sales orders that you want to release from shipping hold.
3. Select one or more orders.
4. Select Unblock Shipping. Review the confirmation message.

WMS removes the shipping block from all eligible selected orders. If only some orders are eligible, WMS updates those orders and shows a message such as “Shipping block removed for X orders out of Y orders selected”.

To understand why any order was not updated, open the message details. WMS may show that the order is Shipped, Cancelled, or has an active replacement order.

If all selected orders are Shipped or Cancelled, WMS does not run the update and shows that all selected orders are not in a valid status for removing a shipping block.

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

Transportation Split for Order Details across Different Planned Loads

Consider there are heavy items such as refrigerators/heavy cooling machines etc., with few quantities in a single order detail. Assuming that OTM may not have the capability to load all heavy items in a single truck load, OTM may want to split the loads for the order details. As a warehouse operator, you have the flexibility to plan the load and pick the items as per the planned load quantity.

Transportation Split Creation

Transportation split allows you to load a single order detail to multiple loads. This trigger may come from OTM based on their loading capacity.

You can perform transportation split via Planned Load Interface.

To perform the transportation split for an order detail, do the following:

1. Open the **Planned OB Load Interface** .xml file.
2. Enter the Order details to split.

   Based on the planned_qty, the system splits the order detail. If you skip the planned_qty entry, the system plans the load for the complete order detail quantity. Also, you can enter multiple order details to assign the load.

   > **Note:** If multiple details are added, the system identifies and filters the order details in the following sequence to uniquely identify an order detail (to be interfaced in the Planned OB Load interface file).
   >
   > - order_nbr + order_seq_nbr
   > - erp_fulfillment_line_ref
   > - 4 part key
   > - ship_request_line

3. Enter a Load Number (External Planned load) to assign for the order detail.
4. Enter the “CREATE” action code at the load level.
5. Save the file.
6. Navigate to the **Input Interfaces** UI.
7. Select **Planned OB Load** from the drop-down list.
8. Click **Upload** and choose the saved **Planned OB Load Interface** .xml file.
9. Click **Upload**.

   You can view the uploaded file under the **Files** tab.
10. Click **Run Interface** to run the Planned OB Load interface file.

    The system displays a pop-up message “Interface completed”. If any execution fails, the system displays an error message.

You can check the processed records under the **Stage Record** tab.

Note: During Transportation Split, the only reference to find the new Order details created from the source order detail is from the Order detail reference number field. The Order Detail Original Sequence Number field is available (in all file formats) to be shared via the WOA output interface (WAVE PICK INFO), SLS Output Interface, OBLPN Shipping info Output interface, and Pallet Shipping info Output interface.

Before split	order id	Order nbr	seq nbr	4partkey	qty	Orig ord qty	External load	Orig ord dtl ref id
	123	Ord_1	1	abcd	100	100	null	null

After split	order id	Order nbr	seq nbr	4partkey	qty	Orig ord qty	External load	Orig ord dtl ref id
	123	Ord_1	1	abcd	70	100	null	123
	456	Ord_1	2	abcd	30	30	EPL1	123

Points for Consideration:

- The system displays an error message in the following conditions:
  - If the Planned Load Quantity > Order Detail Quantity.
  - If the Planned Load Quantity > (Order Detail Quantity - Shipped Quantity).
  - If Order Detail does not exist.
  - If the Planned Quantity is 0.
  - If the Order Detail has any allocated Quantity. No pending allocations should be present for the Order Detail.
- If you leave “qty_uom_code” as blank, by default, the system considers the Item Primary UOM as UOM Code.
- As you are splitting the Order Detail, every time the system creates a new sequence number. So, the unique identifier here is the 4-part key (erp_source_hdr_ref + erp_source_line_ref + erp_source_shipment_ref + erp_fulfillment_line_ref).

For example, consider an order ORD-01 requires 100 quantities of SKU-1.

Order Before Planning:

Order Number	SKU	Ordered Quantity	External Planned Load Number
ORD-01	SKU-1	100	

If you plan LOAD-1 and LOAD-2 with 50 and 20 quantities respectively via Planned OB Load Interface, the system splits the 100 quantities of ORD-01 order detail and updates the order details as follows.

Order Number	SKU	Ordered Quantity	External Planned Load Number
ORD-01	SKU-1	30	
ORD-01	SKU-1	50	LOAD-1
ORD-01	SKU-1	20	LOAD-2

Update/Delete an Externally Planned Order Detail

You can update the quantity for a planned order detail when the load planning is done via an external application and there are changes required in load planning. Also, you can delete the planned load order detail.

To update an externally planned load quantity or order details for an order detail, do the following:

1. Open the **Planned OB Load Interface** .xml file.
2. Enter the Load Number (External Planned load) and Order details to update.
   Based on the planned_qty, the system updates the order details.

   > **Note:** You can enter multiple order details to update the load. If you update the planned quantity > ordered quantity, the system displays an error message “Order detail {filter criteria used} interfaced has Planned Qty > Order Qty for the load {load_nbr}. Cannot proceed”.

3. Enter the “UPDATE” action code at the load level.
4. Save the file.
5. Navigate to the **Input Interfaces** UI.
6. Select **Planned OB Load** from the drop-down list.
7. Click **Upload** and choose the saved **Planned OB Load Interface** .xml file.
8. Click **Upload**.
9. Click **Run Interface** to run the Planned OB Load interface file.
   You can view the updated order details on the **Order Details** screen.
   When you update the planned load quantity of an order detail, the following examples explain the system updates.

Example 1: Reducing the planned quantity.

Order Detail Before Planning:

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-01	SKU-1	1	100	EPL001

If you update the quantity from 100 to 80, the system updates the order detail as follows.

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-01	SKU-1	1	20	
ORD-01	SKU-1	2	80	EPL001

Example 2: Reducing the planned quantity (order with multiple order details).

Order Details Before Planning:

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-02	SKU-1	1	100	EPL002

ORD-02	SKU-1	2	100	EPL003

If you update the quantity from 100 to 80 for EPL002, the system updates the order details as follows.

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-02	SKU-1	1	20	
ORD-02	SKU-1	2	100	EPL003
ORD-02	SKU-1	3	80	EPL002

Example 3: Increasing the planned quantity (order with multiple order details).

Order Details Before Planning:

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-03	SKU-1	1	20	
ORD-03	SKU-1	2	80	EPL004
ORD-03	SKU-1	3	100	EPL005

If you update the quantity from 80 to 100 for EPL004, the system updates the order details as follows.

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-03	SKU-1	1	100	EPL004
ORD-03	SKU-1	3	100	EPL005

To delete an externally planned order detail, do the following:

1. Open the **Planned OB Load Interface** .xml file.
2. Enter the Load Number (External Planned load) and Order details to delete.

   Based on the planned_qty, the system deletes the order detail. If you skip the planned_qty entry, the system deletes the load for the complete order detail quantity.

   > **Note:** You can enter multiple order details to delete the load.

3. Enter the “DELETE” action code at the load level to remove the order detail from the respective planned load.
4. Save the file.
5. Navigate to the **Input Interfaces** UI.
6. Select **Planned OB Load** from the drop-down list.
7. Click **Upload** and choose the saved **Planned OB Load Interface** .xml file.
8. Click **Upload**.
9. Click **Run Interface** to run the Planned OB Load interface file.

   You can observe that the deleted order detail quantity merges with the primary order detail on the **Order Details** screen.

Note: The system supports DELETE action code only when the load is in Created Status.

You can also use the "Reset Planned Load Nbr" action button on the **Order Details** screen to delete an externally planned load.

To delete an externally planned load on the **Order Details** screen, do the following:

1. Go to the **Order Details** screen.
2. Select the order detail(s) to delete the planned load.
3. Click the **Reset Externally Planned Load Nbr** action button to delete the planned load for the selected order detail(s).

   The system displays a pop-up error message "Proceed with resetting Externally Planned Load Nbr?" to confirm.
4. Click **OK** to confirm.

   The system confirms that the external planned load has been reset with unplanned quantity. You can observe the planned load deleted order detail quantity merges with the primary order detail on the **Order Details** screen.

Note: If you reset an externally planned load for an order detail that is partly shipped, the system updates the order detail status to shipped and creates a new order detail with the left-out quantity.

Example: Deleting a Planned load order detail.

Order Details Before Planning:

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-04	SKU-1	1	100	
ORD-04	SKU-1	2	200	EPL006
ORD-04	SKU-1	3	300	EPL007

If you delete the sequence 2 order detail with EPL006 planned load (via Planned OB Load interface or "Reset Planned Load" action button), the system adds the quantity to the unplanned order detail.

Post deleting of order detail with planned load:

Order Number	SKU	Order Sequence	Order Quantity	External Planned Load Number
ORD-03	SKU-1	1	300	
ORD-03	SKU-1	3	300	EPL007

In the above example, if an unplanned order detail is not available, then the system removes only the external planned load for the order detail.

For more details on editing order details, refer to *Modify Ordered Quantity for Allocated or Partly Allocated Orders*.

Order Line Auto-Split for TL/LTL Flow

The system auto-splits order lines when you partially ship orders with an External Planned Load Number.

If there are multiple order lines planned under a single planned load and WMS ships order lines partially, OTM plans the transportation only for the shipped OBLPNs. The system resets the external planned load number on the remaining order lines and auto-splits the order lines that are partially shipped.

Note:

- You can auto-split order lines, instead of performing the “Reset Externally Planned Load”.
- The order lines that are generated post auto-split, will not have the planned load number populated.
- Upon shipping a load, the system auto-splits an order line with the following conditions:
  - The order is externally planned and has an external planned load populated.
  - The planned quantity has been shipped partially on the load.

IHT Updates

Splitting of order detail creates a new sequence number for the newly created Order detail. To make the external system aware of the newly created order detail’s sequence number, the system populates the REF-CODE_13 and REF_VALUE_13 values for the following IHT transactions.

- IHT - 3 Container Shipped
- IHT - 10 Container Detail Packed
- IHT - 11 Container Packed
- IHT -12 Order Detail Shorted
- IHT - 27 Order Cancellation
- IHT - 31 OB Container Modified
- IHT - 32 OB Container Cancelled
- IHT- 75 Order Detail Substitution
- IHT -85 Order Detail Status Change
- IHT - 54 Container Detail Picked

The system captures the following values for REF-CODE_13 and REF_VALUE_13 fields:

REF_CODE_13	REF_VALUE_13
OOS	Populates the original order sequence number only if the order detail has gone through a transportation split

Handling of Serial Numbers for Transportation Split Order Details

During transportation split, when you split a single order detail into multiple loads, the **Planned OB Load** interface picks the serial numbers randomly as per the planned quantity and updates the serial numbers under the “Required Serial Numbers” column in the **Order Detail** screen.

Planned Load Order Detail Quantity Update

If you update the planned load ordered quantity for a split order detail, the system takes an extra ordered quantity from the original transportation split order detail and updates the serial numbers based on the quantity.

For example, consider an order (ORD-1) that has 10 units of serial tracking item “SKU-A”. If you perform transportation split for the order detail, assume that the following updates are made in the order detail.

Initial Order Detail:

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers
ORD-1	SKU-A	10	-	SRL01, SRL02, SRL03, SRL04, SRL05 SRL07, SRL08, SRL09, SRL10

Post Transportation Split (Order Details):

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers	Order Sequence	Ref Order S
ORD-1	SKU-A	6	-	SRL05, SRL06, SRL07, SRL08, SRL09, SRL10	1	-
ORD-1	SKU-A	2	EXPLOAD01	SRL01, SRL02	-	1
ORD-1	SKU-A	2	EXPLOAD02	SRL03, SRL04	-	1

If you update the Planned Load Quantity (EXPLOAD01) to 5. The system updates the serial numbers as mentioned below.

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers	Order Sequence	Ref Ord Seq
ORD-1	SKU-A	3	-	SRL08, SRL09, SRL10	1	-
ORD-1	SKU-A	5	EXPLOAD01	SRL01, SRL02, SRL05, SRL06, SRL07	-	1
ORD-1	SKU-A	2	EXPLOAD02	SRL03, SRL04	-	1

Order Quantity Update

When you update the ordered quantity for an original transportation split order detail via **Order Detail** UI or **Order Interface**, the system updates the ordered quantity and merges the order details with serial numbers.

For example, if you update the ordered quantity for the original transportation split order detail from 3 to 5 in the following table via UI or interface.

Order Number	Item	Ordered Quantity	Required Serial Numbers	Status
ORD-1	SKU-A	3	S1, S2, S3	Created
ORD-1	SKU-A	2	S4, S5	Created

On updating the ordered quantity, the system merges the order details along with the ordered quantity and serial numbers.

Order Number	Item	Ordered Quantity	Required Serial Numbers	Status
ORD-1	SKU-A	5	S1, S2, S3, S4, S5	Created

Planned Load Order Detail Deletion

If you delete an externally planned load with ordered quantity, the system adds the deleted quantity to the original transportation split order detail along with the serial numbers.

For example, consider an order (ORD-1) that has 10 units of serial tracking item “SKU-A”. If you perform transportation split for the order detail, assume that the following updates are made in the order detail.

Initial Order Detail:

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers
ORD-1	SKU-A	10	-	SRL01, SRL02, SRL03, SRL04, SRL05 SRL07, SRL08, SRL09, SRL10

Post Transportation Split (Order Details):

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers	Order Sequence	Ref Order S
ORD-1	SKU-A	6	-	SRL05, SRL06, SRL07, SRL08, SRL09, SRL10	1	-
ORD-1	SKU-A	2	EXPLOAD01	SRL01, SRL02	-	1
ORD-1	SKU-A	2	EXPLOAD02	SRL03, SRL04	-	1

If you delete the Planned Load EXPLOAD01 for the order detail, the system updates the serial numbers as mentioned below.

Order	Item	Ordered Quantity	External Planned Load Number	Required Serial Numbers	Order Sequence	Ref Ord Seq
ORD-1	SKU-A	8	-	SRL01, SRL02, SRL05, SRL06, SRL07, SRL08, SRL09, SRL10	1	-

ORD-1	SKU-A	2	EXPLOAD02	SRL03, SRL04	-	1

Reset Planned Load for an Order Detail

When you use the “Reset Planned Load” action button for an Order Detail (requires serial number) that has some already shipped units, the system closes the externally planned load with the quantities that are already shipped and updates the serial numbers under the “Required Serial Numbers” column in the **Order Detail** screen with the shipped serial numbers. Also, the system creates a new order detail with the remaining serial numbers that are not shipped.

Note: The number of units matches with number of serial numbers.

Example: Consider an order ORD-05 has 5 units of SKU01 which is serial tracked.

Initial Order Detail:

Order	Item	Ordered Quantity	Status	External Planned Load Number	Required Serial Numbers
ORD-05	SKU01	5	Created		REF01, REF02, REF03, REF

If 3 units of order detail got allocated and shipped with load EXPLOAD03, the system updates the order detail as follows.

Order	Item	Ordered Quantity	Allocated Quantity	Shipped Quantity	Status	External Planned Load Number	Required Seri
ORD-05	SKU01	5	3	3	Partly Allocated	EXPLOAD03	REF01, REF02, REF04, REF05

If you click Reset the planned load EXPLOAD03, as the order detail is already shipped with 3 quantities, the system creates a new order line for the remaining quantity “2”.

Order	Item	Ordered Quantity	Allocated Quantity	Shipped Quantity	Status	External Planned Load Number	Required Ser
ORD-05	SKU01	5	3	3	Shipped	EXPLOAD03	REF01, REF0
ORD-05	SKU01	5	2	2	Created		REF04, REF0

Support Backorder Sales Order Line Split or Update via Planned Load Interface

4 Part Key (ERP Source Header Reference+Source System Name+Source Shipment Reference+ERP Source Line Reference) links orders in Order Management to multiple systems. Each fulfillment order line is treated as a separate order in WMS.

Generally, the combination of 4 Part Key is supposed to be unique for each order line. But, certain scenarios create multiple order lines with same 4 Part Key. So, WMS-OTM integration supports 4 Part Key duplication for multiple order lines.

Following are scenarios where Fusion Shipping creates a new order line with a different Ship Request line but the same 4 Part Key.

- When Order Management increases the back order (created due to shorting) quantity, Fusion Shipping creates a new order line with a different ship request line but the same 4 Part Key.
- When Fusion Shipping splits the order coming from Order Management, the WMS receives two Sales Orders with the same 4 Part Key.

WMS-OTM integration happens based on the 4 Part key. So, to plan the external load, the Planned Load Interface supports handling of the same 4 Part Key for multiple order details. For more details on how to update an externally planned load quantity or order details for an order detail, refer to *Update/Delete an Externally Planned Order Detail*.

If multiple eligible orders or lines are available with the same 4 Part Key, while planning the load, the system compares and sequences the orders based on the following criteria. So that the system fulfills and ships the orders with the earlier required ship date and higher ordered quantity.

- Ascending sequence of the required ship date of the order.
- Descending order of the required quantity (Ordered Quantity).

Note:

- Planned Quantity should be less than the required quantity (summed up value) of all eligible orders or order line. If you plan more than the required quantity, the received planned load interface fails.
- If you decrease the planned quantity of a load (spread across multiple eligible orders), the system unassign the load in the reverse order of the assignment. The system sorts the orders in the descending order of the required ship date and in case of a tie, uses the ascending order of the required quantity.

Example:

Consider the following orders are created with the same 4 Part Key.

Order ID	Sequence	SKU	Ordered Quantity	External Load	4 Part Key	Required Ship Date
123	1	ABC	20	-	1.1.2.1	06/10/2024
124	1	ABC	7	-	1.1.2.1	06/10/2024

Assume that you have planned an external load “Load-1” with 22 units (4 Part Key is 1.1.2.1). For planning the load, the system uses the following criteria.

1. The system checks for the ascending sequence of the required ship date. Here, the required ship date is the same for both orders. So, the system goes for the next criteria.
2. The system checks for the descending sequence of the ordered quantity. Here, the ordered quantity for Order ID “123” is more. So, the system fulfills the Order ID “123” first.

Post-planning of external load “Load-01”, the system updates the orders as follows.

Order ID	Sequence	SKU	Ordered Quantity	External Load	4 Part Key	Required Ship Date
123	1	ABC	20	Load-1	1.1.2.1	06/10/2024
124	1	ABC	5	-	1.1.2.1	06/10/2024

Order ID	Sequence	SKU	Ordered Quantity	External Load	4 Part Key	Required Ship Date
124	2	ABC	2	Load-1	1.1.2.1	06/10/2024

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 Managment** 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-prioritze 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)

MBA Radial Putaway

Market Basket Analysis (MBA) Radial Putaway in Oracle WMS Cloud helps decide where to store items using specific search patterns. Setting the radius and increment correctly keeps things running smoothly and prevents slowdowns or system crashes.

- **Radius** determines how far the system searches from a central point. A bigger radius covers more ground but can slow things down.

- **Increment** sets the step size for each search, affecting how quickly the system finds an available spot.

The Radial Putaway method for Market Basket Analysis in WMS uses the **Primary Item's** location as a starting point to identify candidate locations nearby. If multiple locations are available, they are prioritized by location sequence. If no suitable location is found, the system moves to the next **Primary Item** location.

Performance Considerations

A max SKU evaluation limit field allows control over performance impact. To keep things running smoothly:

- Set the **radius to less than 20** to speed up searches and use space efficiently.
- Keep the **increment at 10 or below** to avoid unnecessary expansion.

For example, if you set both the radius and increment to 20, the system will check 20 bays to the left and right of the center, then expand by 20 bays at each step. This setup keeps the search efficient without overloading the system.

> **Note:** Avoid entering values higher than 20 in these fields, as larger numbers can slow down performance.

Putaway Prioritization

Putaway prioritization follows a strict order: **confidence (to three decimals), then support, then lift**. The values for these three concepts can be viewed by following the **'Model Reference'** hyperlink on a **Completed AI/ML model** for Market Basket Analysis.

Additionally, the **AI/ML Training Template** that generated such a model must have the flag **'Use for Market Basket Analysis based Putaway'** active. This ensures the model is correctly configured for putaway decisions.

- If all values are equal, either item is acceptable.
- If no items meet the minimum thresholds, the system falls back to the secondary putaway rule.

Data Persistence & Search Filtering

Market Basket Analysis data is stored, with each run having a unique **Model Reference Number**, so users can always access past results using hyperlinks.

Filtering options for **support, confidence, and lift** allow users to input one, two, or all three criteria in the search field. The system provides results accordingly, even if only a minimum or maximum **value** is given.

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:

- **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
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 with in 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
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 over pick 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

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 Mobile 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:

- **Shipped Quantity**: 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

Shipped Order Details Service Level Report UI

The Shipped Order Details Service Level Report provides an overview of order fulfillment performance over a specified time period. It tracks the total number of order details processed and analyzes how quickly these orders are shipped, categorizing them by the number of days taken to ship (from day 1 through day 5, as well as those not shipped). The report includes calculated service-level percentages that show the proportion of orders shipped within specific time frames, offering valuable insights into shipping efficiency.

Here are descriptions of the fields in the report:

Column	Format	Description
Date	Date	The date records are generated. Format supported is YYYYMMDD
Nbr Order Details	Numeric	Total number of order details present
Details Shipped Day 1	Numeric	Total number of order details shipped in day1
Details Shipped Day 2	Numeric	Total number of order details shipped in day2
Details Shipped Day 3	Numeric	Total number of order details shipped in day3
Details Shipped Day 4	Numeric	Total number of order details shipped in day4
Details Shipped > Day 4	Numeric	Total number of order details shipped in day5
Details Not Shipped	Numeric	Total number of order detail not shipped
Service Level Day 1	Decimal	TOTAL value of 'Details Shipped Day 1' / TOTAL value of 'Nbr Order Details'
% Service Level Day 2	Decimal	TOTAL value of ('Details Shipped Day 1'+ 'Details Shipped Day 2') / TOTAL va
% Service Level Day 3	Decimal	TOTAL value of ('Details Shipped Day 1'+ 'Details Shipped Day 2' + 'Details Sl

Column	Format	Description
% Service Level Day 4	Decimal	TOTAL value of ('Details Shipped Day 1'+ 'Details Shipped Day 2' + 'Details Sh 'Nbr Order Details' * 100
% Service Level > Day 4	Decimal	TOTAL value of ('Details Shipped Day 1'+ 'Details Shipped Day 2' + 'Details Sh > Day 4') / TOTAL value of 'Nbr Order Details' * 100
% Orders Not Shipped	Decimal	TOTAL value of 'Details Not Shipped' / TOTAL value of 'Nbr Order Details' *

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)

- Pack NC Active Order

- Modify Cancel {oblpn}
- Pick {iblpn}
- Distribute {oblpn}
- Pack {oblpn}
- Pick Cart
- Outbound Audit
- Repack OBLPN
- 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

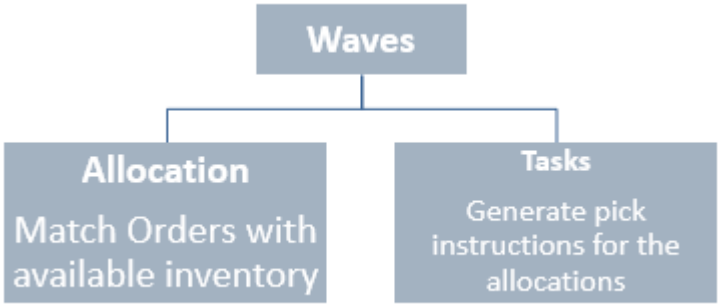
Order Integration into WMS

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

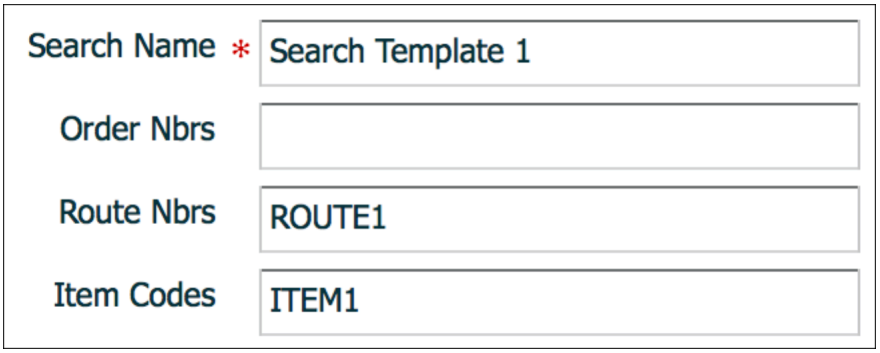
Step 1: Create a Wave Template Search

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.

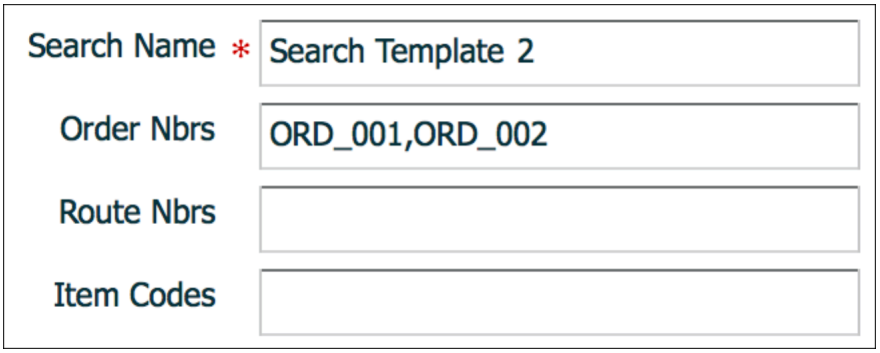
To view existing Template Searches, click the “Wave Template Searches” button from the “Wave Template” screen.

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

Examples:



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



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 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_sytem:** Input the MHE system needed for this allocation, if configured. If picking is happening from MHE, then the MHE system has to be populated on the allocation mode sequence.
- **Ignore Attribute A, B, 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	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.	• IBLPN Pick for Consol Replen • Task Zone Movements • Distribute Replenishment
DISTRIBUTE-LPN	Distribute LPN	Used for LPN picking tasks with distribution.	• Move LPN • Task Zone Movements • 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.	• Pack {oblpn} • Task Zone Movements • Putaway OBLPN
INTERNAL-PICK	Internal Picking Task	Tasks relevant to internal unit movements, such as directed putaway.	• IBLPN Pick for Consol Replen • Task Zone Movements • Distribute Replenishment
LPNCASES	Reserve Cases	Used for Case picking tasks with no distribution.	• Pack {oblpn} • Task Zone Movements
LPNMOVE	LPN Movement	Used for movement of intermediate LPNs during distribution and replenishment.	• Pack NC Active {order} • Task Zone Movements • Putaway OBLPN
LPNPACKS	Reserve Inner Packs	Used for Pack picking tasks with no distribution.	• Pack {oblpn}

Task type	Description	Explanation	Modules Used with Task Type
			• Task Zone Movements
LPNUNITS	Reserve Units	Used for Unit picking tasks with no distribution.	• Pack NC Active {order} • Task Zone Movements • Putaway OBLPN
NC-ACTIVE-PICK	Noncubed Active Picking Task	Used for internal non-cubed active picking tasks.	• Pack NC Active {order} • Task Zone Movements • Putaway OBLPN
PICK_CART	Pick Cart	Used for creating Pick Cart tasks.	• Pick Cart • Task Zone Movements • Putaway OBLPN
PICKLPN-INTERNL	Pick LPN Internal	Tasks relevant to internal LPN movements, such as directed putaway.	• Pick {iblpn} • Task Zone Movements
PLTMV_AUTOPK	Plt Move Auto-Pack	Used for pallet picking tasks. The task will be generated only when the LPNs available in the pallet are allocated. This is applicable for Full LPN allocation only.	• Move LPN • Task Zone Movements • 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).	• Move LPN • Task Zone Movements • Distribute Replenishment
REPLEN-LPN	Full LPN Replenishment	Used for LPN replenishment tasks. This task type is enabled when entire LPNs are being replenished.	• Move LPN • Task Zone Movements • Replenish Full LPN
CC-LOCATION	Cycle Count Location	Used for Cycle Count Location tasks.	• Cycle Cnt {locn}
CC-LOCATION-DTL	Cycle Count Location Detail	Manual CC by Item Detail	• Cycle Cnt {locn}
CC-LOCN-BY-ITEM	Cycle Count Location by Item	Used for Item Driven Cycle Count Location tasks.	• Cycle Count Location
CC-LOCN-LPN-CNT	Cycle Count Location LPN Count	Count the LPNs in a Cycle Count Location.	• Resv {lpn} Nbr Cnt • Cycle Cnt {locn}
CUBEDSINGLEUNIT	Cubed Single Unit	Pick and Pack cubed single LPNs that were generated by the wave.	• Pack {oblpn} • Task Zone Movements
FULL-LPN-PALLET	Full LPN	Pick and Pack full LPNs that were generated by the wave.	• Pack {oblpn} • Task Zone Movements

Task type	Description	Explanation	Modules Used with Task Type
			• Putaway OBLPN
CUBED SINGLE CASE	Cubed Single Case	Pick and pack cubed single cases.	• Pack {oblpn} • Task Zone Movements
CUBED SINGLE PACK	Cubed Single Pack	Pick and pack cubed single packs.	• Pack {oblpn} • Task Zone Movements
MULTILPNMOVE	Multi LPN Move	Movement of multiple intermediate LPNs during distribution and replenishment.	• Move LPN • 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 a 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.

Fields	Description
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. 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. 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. **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.

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.

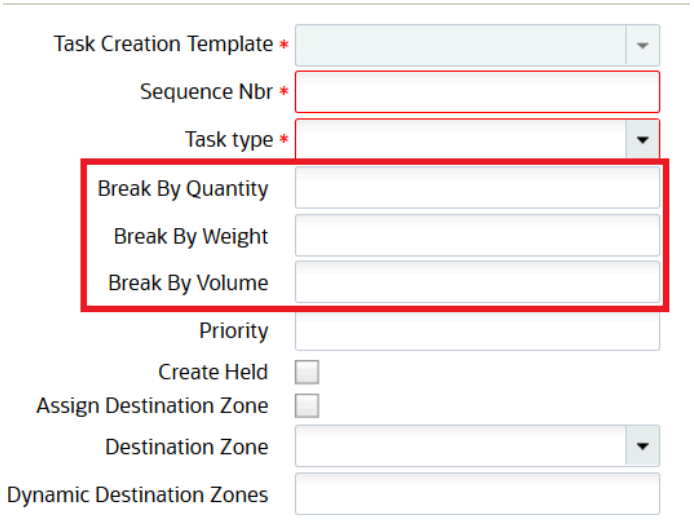
For example, If break by quantity is configured as 80, and there are three allocations in sequence with Qty: 50, 60 and 40, the first two allocations with Qty 50 and 60 are added to the first task and then the third allocation with Qty 40 is created as a second task.

> **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.



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

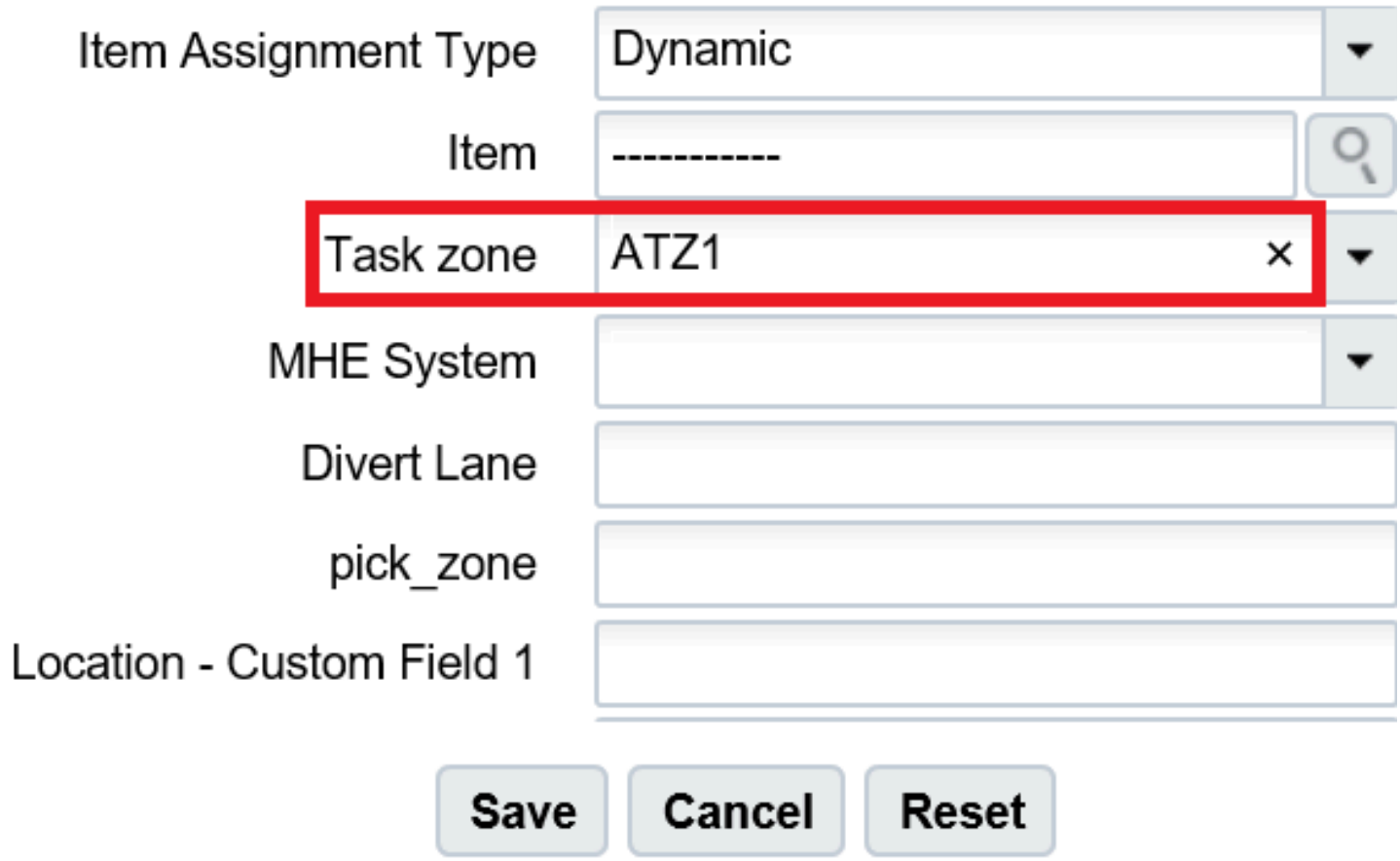
Note: The grouping of tasks happens at the allocation level (meaning a single allocation will not be broken into two tasks even if the break by quantity/weight/volume is satisfied within the allocation).

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:



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

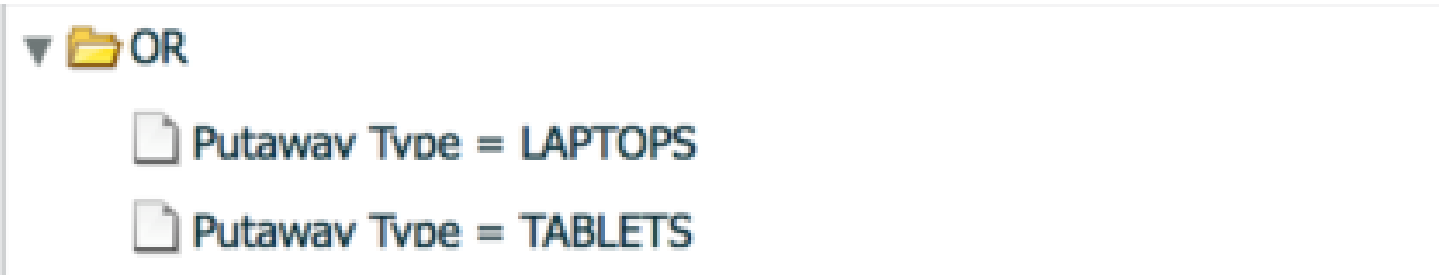
   This will create a new Task for every Pallet that is allocated. This may be used in cases where the picking equipment does not allow users to pick multiple pallets at a time.

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 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).
- **Mark Picking Allocations Dependent on Replenishment:** On enabling this flag, you can mark allocations dependent on the replenishment, if the picking allocation has a corresponding replenishment task.

  Note: If you enable the "Mark Picking Allocations Dependent On Replenishment" flag, you must provide the Replenishment Rule on the Wave Template. If you skip to update, the system alerts you with an error message "Cannot have mark picks dependent on replenishment set to yes without replenishment rule".

  For more details on the configuration required to Hold/Release Replenishment Dependent Picking Tasks, refer *Holding or Releasing Replenishment Dependent Picking Tasks*.

Wave Template Search Selection By Item's Pack Or Case Quantity

The Order Detail Selection UoM in the **Wave Template Searches** UI provides an option for the wave to specifically select order details for items having potential chance of getting full LPN allocations. This, in turn reduces the total number of wave details (allocation run details) that the Wave has to evaluate to do the allocation.

Note: This feature helps customers where the following conditions apply:

- They are able to run separate waves for full LPN allocations versus other types of allocations.
- Their business flow guarantees that the FULL LPN quantities match with their standard case (or pack) quantity.

The “Order Detail Selection Uom” drop-down allows empty cases or packs. If the field is set to empty, there will be no change in the order selection process. To set the order detail to case or packs, do the following:

1. Navigate to the Wave Template, **Wave Template Searches** UI to enable searching of order lines based on matched standard Pack or Case quantity
2. From your Wave Template Search, select Cases or Packs from the **Order Detail Selection UOM** drop-down.
3. If **Order Detail Selection UoM =** Cases:Order Detail Search will select only those order details whose ordered_qty is >= Standard Case Quantity for the left only those order details whose ordered_qty is >= Standard Case Quantity for the corresponding item. A 0 / undefined value in the Standard Case Quantity implies that all order details are selected.

   For example: Wave Template Search configuration is item_codes = SCH_B11, order_detail_selection_uom = Cases Item SCH_B11 with std_pack_qty = 6 and std_case_qty = 12, then:

   a. Order detail with Order Qty = 1
   b. Order detail with Order Qty = 0
   c. Order detail with Order Qty = 2
   d. Order detail with Order Qty = 6
   e. Order detail with Order Qty = 5
   f. Order detail with Order Qty = 7
   g. Order detail with Order Qty = 10
   h. Order detail with Order Qty = 12
   i. Order detail with Order Qty = 13
   j. Order detail with Order Qty = 11
   k. Order detail with Order Qty = 24
   l. Order detail with Order Qty = 36

   The Wave is run and the order details 8, 9, 11 and 12 gets selected.

   - If **Order Detail Selection Uom** = Packs:The behavior is similar to CASES except the wave refers to the Standard Pack Quantity for the comparison.
4. Click **Save** to process.

Configuration for Managing Multiple Wave Instances

The **ONLY_ONE_WAVE_PER_FACCO** company parameter supports values that define how strictly WMS controls concurrent wave activity. You can choose whether to allow waves to run together by template, restrict waves by type, or enforce a single wave-related process at a time.

This gives operations teams more control over simultaneous wave processing, helping balance high-frequency wave execution with safeguards that prevent conflicting wave runs.

Note: Run Wave and Undo Wave use consistent locking behavior so the configured concurrency rule is applied across both actions.

Steps to Enable and Configure

1. Review the **ONLY_ONE_WAVE_PER_FACCO** company parameter and set the value that matches your operational flow: **one-per-wave-template, one-per-wave-type, or enforce-single-wave.**
2. Set the **ONLY_ONE_WAVE_PER_FACCO** company parameter to No for **one-per-wave-template**.
3. Set the **ONLY_ONE_WAVE_PER_FACCO** company parameter to Yes for **one-per-wave-type**.

Note: Customers choosing one-per-wave-template or one-per-wave-type should evaluate whether different wave templates or wave types may still select overlapping orders or inventory.

Define Order Waving Sequence Rules

The **Ordering Sequence Rule UI** allows you to define what fields you want to select sequence your orders in a picking wave.

1. Go to the **Wave Template** screen.
2. Navigate to the Wave Template Search sub-UI.
3. Click the Order Sequence Rule Button in the Wave Template Search sub-UI.
4. Create the Order Sequence Header, by defining rule name, description and template type as Wave Template.
5. Create the Order Sequence Detail, by populating the columns that need to considered for sequencing the orders.
6. Populate the Order Sequence Rule for the Wave Template search.

Note: Prioritization of orders is not recommended to be used when a picking wave is run with a replenishment rule associated to the wave template. Replenishment might not honor the order prioritization logic.

Holding or Releasing Replenishment Dependent Picking Tasks

Picking wave-based replenishment determines inventory shortfalls and creates replenishment tasks to pick locations. Based on the replenishment tasks, the system creates allocations assuming that the order will be fulfilled when corresponding replenishment tasks are completed.

You can configure the system to hold the replenishment dependent picking tasks until the underlying replenishments are completed. This way, the picking tasks that are dependent on replenishment will not be assigned to a picker, until the replenishment activity for the picking location is complete. Picking can be scheduled based on the picking task status instead of pickers moving to the picking location to fulfill a task with insufficient quantities. This prevents skipping or short picking, and reduce backorders from ERP, improving productivity on the warehouse floor.

Hold Replenishment Dependent Picking Tasks

If there is insufficient quantity in a location to fulfill an order via picking wave, the system creates replenishment tasks for the required quantity (deficit), if replenishment rule is configured in the wave template. Hence, the picking location will have incoming inventory coming through the replenishment tasks generated. Pickers may not be aware of such

activities. Hence, to hold the replenishment dependent picking tasks till the completion of replenishment, configure the following:

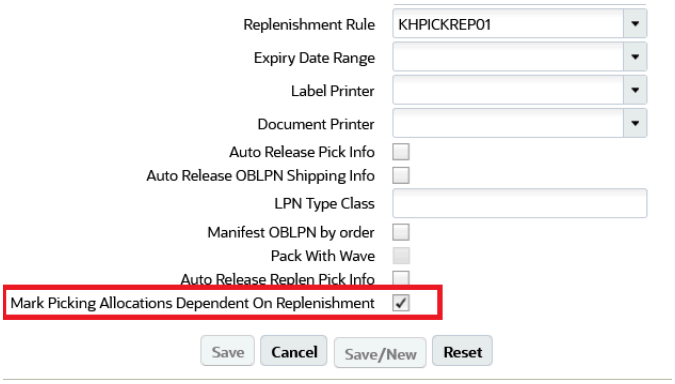
1. Go to **Task Creation Template (TaskCreationView)** UI.
2. While creating a task template, enable the “Create Dependent Picking Task In Held Status” flag.

   On enabling the flag, if the underlying allocation on a task has “Dependent On Replenishment”= “Yes”, then the system updates the picking task with Held status.

   For more details on task template creation, refer “Step 3: Create a Task Creation Template” in the *Creating Wave Templates* section.
3. Click **Save**, to save the configured task creation template.

After creating a task template, to configure a wave template, do the following:

1. Go to **Wave Template (WaveTemplateView)** UI.
2. On the Create/Edit panes,
   - Add/update the details.
   - Select a task creation template (template that is enabled with the flag “Create Dependent Picking Task In Held Status”).
   - Select a Replenishment Rule and enable the “Mark Picking Allocations Dependent On Replenishment” flag.



> **Note:** If you are enabling the “Mark Picking Allocations Dependent On Replenishment” flag, you must provide the Replenishment Rule on the Wave Template. If you skip to update, the system displays an error message “Cannot have mark picks dependent on replenishment set to yes without replenishment rule”.

   After enabling this flag on the **Wave Template**, on running the wave template, the system marks allocations dependent on the replenishment if the picking allocation has a corresponding replenishment task. You can check these allocations that are dependent on the replenishment in the **Wave Inquiry > Allocation** UI.
3. To save the configured wave template, click **Save.**

For more details on how to configure a wave template, refer *Creating Wave Templates* section.

During wave-based replenishment, if the flag “Mark Picking Allocations Dependent On Replenishment” is enabled on the **Wave Template**, on running the wave, for the insufficient inventory, wave triggers the replenishment and updates the flag “Dependent On Replenishment” with “Yes” automatically for the allocations that are dependent on replenishment.

Following table describes the behavior of the “Dependent On Replenishment” versus the “Mark Picking Allocations Dependent On Replenishment” flag configuration.

“Mark Picking Allocations Dependent On Replenishment” flag on the Wave Template UI	Behavior of the replenishment allocations	“Dependent On Replenishment” flag valu
Enabled	Picking allocation is dependent on the replenishment allocation	Yes
Enabled	Picking allocation is independent on the replenishment allocation	No
Disabled	NA	Blank

Also, for configuring the Task Selection Rules, Task Ordering Rules, or Cubing Rules, note that the “Allocation Dependent On Replenishment Flag” column is available on the following screens so that you can segregate the picks that are dependent upon replenishment versus the picks that are not dependent upon replenishment.

- **Task Creation Template** > **Details** > **Selection Criteria**
- **Task Creation Template** > **Details** > **Ordering Criteria**
- **Cubing Rules** > **Selection** > **Selection**
- **Cubing Rules** > **Selection** > **Ordering Criteria**

For more details on cubing rules, refer “Adding Cubing Rules” topic in the *Cubed Picking* section.

Release Replenishment Dependent Picking Tasks upon Replenishment

On completion of either Full LPN Replenishment or Distribute Replenishment, if the available quantity is sufficient to fulfill the picking allocation, the system updates the flag “Dependent On Replenishment” = “No” for that allocation on the **Wave Inquiry > Allocation** UI.

> **Note:** Here, the system considers the Available Quantity = Current Quantity – ((Sum of the allocated quantity for the allocations with “Dependent On Replenishment” = “No” or Blank) + (any allocation where “is picking” = “Yes”/“No”)).

Also, if you perform directed putaway to the pick location that fulfills the order, then the pending allocations that are dependent on replenishment will be updated with the flag “Dependent On Replenishment” = “No”.

Then, the system compares the available quantity with the picking allocation’s allocated quantity. If the allocated quantity is satisfied with the available quantity, then the system updates the flag “Dependent On Replenishment” = “No” and updates the tasks status from Held to Ready.

> **Note:** The system compares the available quantity with the picking allocations in the ascending order of the following sequence.
> - Allocation’s picking task priority (if allocation has tasks)
> - Allocation’s “Allocated Qty” in the **Wave Inquiry** > **Allocation** screen
> - Allocation’s “Create Timestamp” in the **Wave Inquiry** > **Allocation** screen

Example 1:

If a location LOC-01 has 80 units. Consider you got an order of 250 units to fulfill. So, to fulfill the order, extra 170 units are required. On running the wave, assume that the system has created three allocations of 80, 70, and 100 units

(replenishment created for 170 units). On completing the replenishment of 100 units, the system updates the allocations and tasks as follows.

Picking Allocation Quantity	No. of Picking Allocations on Task	Picking Task Status (Before Replenishment)	Behavior (After C Replenishment)
Alloc-1: 80 Alloc-2: 70 Alloc-3: 100	Task-1: Alloc-1 (“Dependent On Replenishment” = “No”) Task-2: Alloc-2 (“Dependent On Replenishment” = “Yes”) Task-3: Alloc-3 (“Dependent On Replenishment” = “Yes”)	Task-1 : Ready Task-2: Held Task-3: Held	The system update On Replenishment updates the Task-2 Also, Task-3 remain

If the replenishment for the remaining 70 units gets completed, then only the system updates the Alloc-3 as independent on replenishment and Task-3 to Ready status.

Example 2:

If a location LOC-02 has 100 units. In that, 20 units are allocated for an internal replenishment (going away from the location). Consider you got an order of 150 units to fulfill. So, to fulfill the order, extra 70 units are required. On running the wave, assume that the system created five allocations of 80, 20, 20, 20, and 10 units (replenishment created for 70 units). On completing the replenishment of 70, the system updates the allocations and tasks as follows.

Picking Allocation Quantity	No. of Picking Allocations on Task	Picking Task Status (Before Replenishment)	Behavior (After Completion of Replenish
Alloc-1: 80 Alloc-2: 20 (Task Priority = 1) Alloc-3: 20 (Task Priority = 2 and Create Timestamp = 10th March 23:45:25) Alloc-4: 20 (Task Priority = 2 and Create Timestamp = 10th March 23:45:30) Alloc-5: 10 (Task Priority = 2 and Create Timestamp = 10th March 23:45:20)	Task-1: Alloc-1 (“Dependent On Replenishment” = “No”) Task-2: Alloc-2 (“Dependent On Replenishment” = “Yes”) Task-3: Alloc-3 (“Dependent On Replenishment” = “Yes”) Task-4: Alloc-4 (“Dependent On Replenishment” = “Yes”) Task-5: Alloc-5 (“Dependent On Replenishment” = “Yes”)	Task-1 : Ready Task-2: Held Task-3: Held Task-4: Held Task-5: Held	The system updates the flag “Dependent C Replenishment” = “No” and updates the re task status to Ready in the following seque • Alloc-2 and Task-2 • Alloc-5 and Task-5 • Alloc-3 and Task-3 • Alloc-4 and Task-4

When a task in Held status gets fulfilled with the required replenishment, the system moves the task status to “Ready”. So, the picker can proceed with picking, as sufficient inventory is available to pick.

Note: If you cancel a wave-based replenishment task for an allocation with no other replenishments, the system updates the “Dependent On Replenishment” flag with “No” for the cancelled allocation.

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

Primary Allocation Method	Secondary Allocation Method	Expected Sortation
		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.

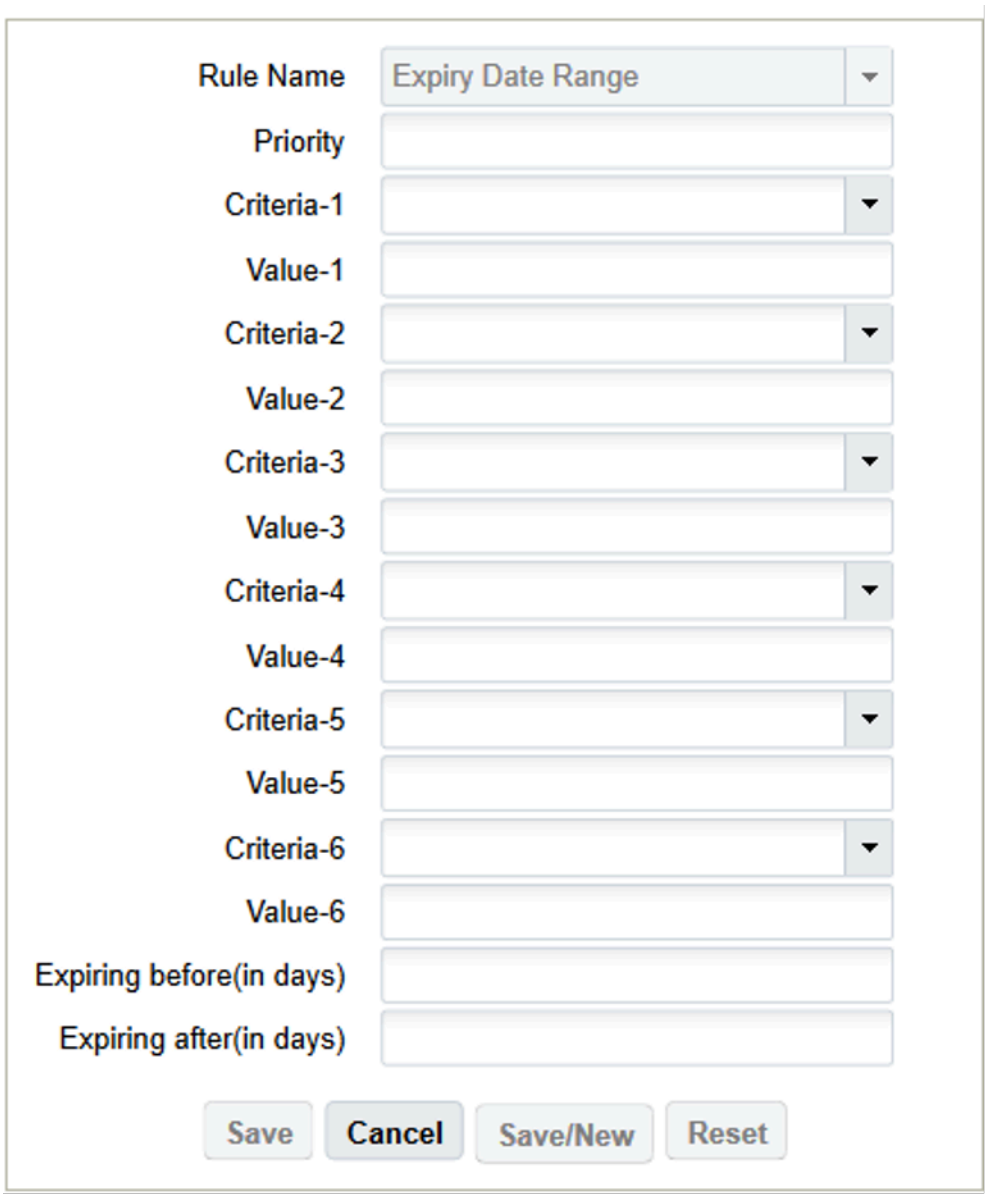
Your rules can be set up by item hierarchy codes and group codes so that users can allocate from different item categories having different life spans.

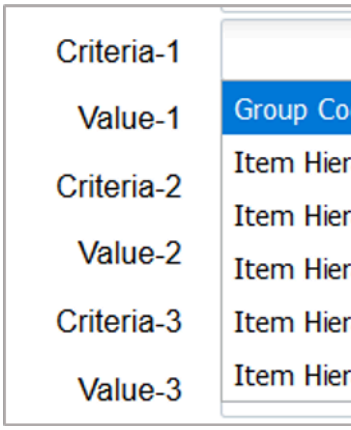
Note: The wave expiry date window range configuration is applicable only for items which are tracking expiration dates (Prod_Life_Days is > 0).

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.





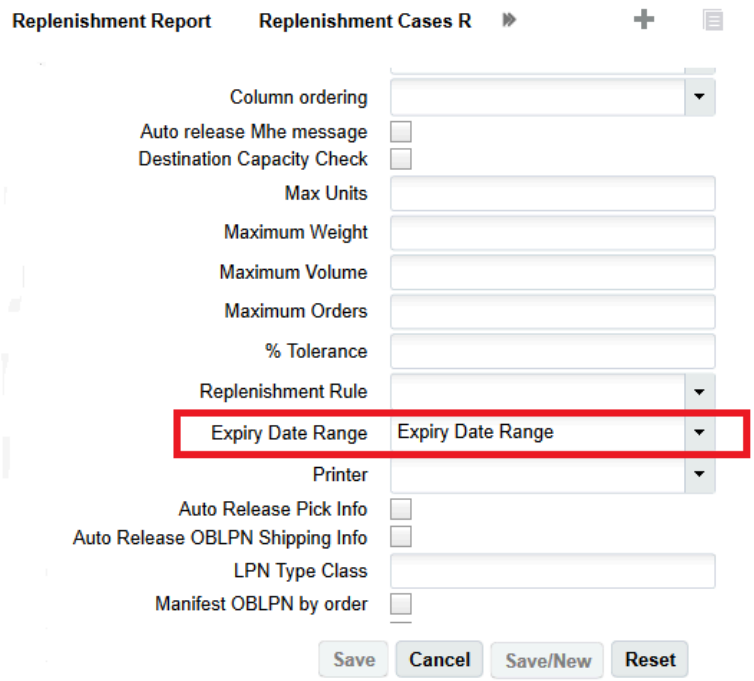
Expiry Date Range Parameters

Fields	Description
Rule Name	Displays the name of the rule.
Priority	You can set the priority of the rule.

Fields	Description
	Note: The system processes the order in ascending order of the priority column value.
Criteria-1 to Criteria-6	You can configure different criteria for additional filter. These additional fields expose following six items field: o Group Code o 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)	This value will be configured in terms of days. The default value will be **blank**. While allocating Expiry date tracked items, wave will only allocate inventory with expiration date <= (current facility date +number configured in the Expiring before(in days)). If set to 0, it will look for inventory that expires today or before.
Expiring after (in days)	This value will be configured in terms of days. The default value will be **blank**. While allocating Expiry date tracked items, wave will only allocate inventory with expiration date >= (current facility date +number configured in the Expiring after (in days)). If set to 0, it will look for inventory that expires today or after.

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.

Honor Expiry Date Range Rules for Direct Allocation

Direct Allocation supports expiry date validation during allocation. Use the **Expiry Date Range Rule** mobile screen parameter to apply expiry date validation during Direct Allocation. When users scan an LPN or pallet for allocation, WMS checks whether the inventory falls within the configured expiry date range before allocating it to the order.

If the parameter is blank, WMS continues the standard Direct Allocation flow.

To honour expiry date range during direct allocation, do the following:

1. Go to the Mobile Direct Allocation screen parameters.
2. Set **Expiry Date Range Rule** to the required expiry date range rule.
3. Perform Direct Allocation by scanning the order and the LPN or pallet.
4. WMS validates the scanned inventory against the configured expiry date range rule.
5. If the inventory falls within the configured range, WMS allocates the inventory and continues to packing.
6. If no inventory in the scanned LPN or pallet meets the rule, WMS stops the allocation and displays a warning.

Honor Expiry Date Range Rules for Cross Dock Pick and Allocate

Pick and Allocate validates picked inventory against an Expiry Date Range rule before allocation. Use the **Expiry Date Range Rule** mobile screen parameter to apply expiry date validation during Pick and Allocate. When users scan inventory, WMS checks whether the inventory expiry date falls within the configured expiry date range before allocating

it to the order. This validation applies to active and reserve locations. It also applies to both user-directed and system-directed Pick and Allocate flows.

If the parameter is blank, WMS continues the standard Pick and Allocate flow.

Steps to Enable

1. Go to the Mobile Pick and Allocate screen parameters.
2. Set **Expiry Date Range Rule** to the required expiry date range rule.
3. Perform Pick and Allocate by scanning the order, location, and inventory.
4. WMS validates the scanned inventory against the configured expiry date range rule.
5. If the inventory expiry date falls within the configured range, WMS allocates the inventory to the order.
6. If the inventory expiry date is outside the configured range, WMS stops the allocation and displays, Inventory is not within the configured expiry date range.

Honor Expiry Date Range, Order Prioritization Rules for Distribute LPN

Warehouses use flow through to move received inventory directly to outbound orders instead of storing it first. When multiple orders can receive the same inventory, users need a consistent way to decide which inventory should flow through and which order should receive it. Use **Crossdock Flowthrough Rules** to control flowthrough decisions during receiving and Distribute LPN flows. WMS evaluates inventory details, expiry date range, order criteria, and order sequence before assigning inventory to an outbound order.

This helps users apply consistent rules when multiple orders can receive the same inventory.

Flowthrough Rule Criteria

A Crossdock Flowthrough Rule can include:

- **Inventory Selection Criteria:** Defines which inventory is eligible for flowthrough and which inventory should be received without flowthrough.
- **Expiry Date Range:** Selects inventory based on the configured expiry range.
- **Order Selection Criteria:** Defines which orders are eligible for flowthrough.
- **Order Sequence Rule:** Defines the order sequence when multiple orders are eligible.

WMS evaluates the configured criteria together. If the inventory and order match the rule, WMS performs flowthrough. If the inventory does not match, WMS receives the inventory without flowthrough.

If **inventory-orderselection-rule** is blank, WMS continues the standard flowthrough behavior. This behavior applies to:

- Mobile Receive by Shipment
- Mobile Receive by Load
- Distribute LPN

For Distribute LPN, WMS also applies these rules during distribution:

- For Distribution without Residue, WMS follows full LPN allocation behavior.
- For Distribution with Residue, WMS can allow partial allocation when eligible inventory exists in the LPN.
- If **flowthrough-alloc-prty** is configured, WMS considers it during flowthrough processing.

Steps to Enable

1. Configure the required Crossdock Flowthrough Rule.
2. Add the required rule criteria:

a. Inventory Selection Criteria
b. Expiry Date Range
c. Order Selection Criteria
d. Order Sequence Rule

3. Go to the applicable mobile flow through screen parameters.
4. Set **inventory-orderselection-rule** to the required Crossdock Flow through Rule.
5. Review **flowthrough-alloc-prty** if your flow through process uses allocation priority.
6. Perform flow through using Mobile Receive by Shipment, Mobile Receive by Load, or Distribute LPN.
7. WMS evaluates the inventory and order against the configured rule.
8. If the criteria match, WMS performs flow through.
9. If the criteria do not match, WMS receives the inventory without flow through.

You can also perform Expiry date range during Cross-dock. Refer to *Cross-Dock Configuration*.

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
- Pick Cart
- 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).

Pick IBLPN

During 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**.

Replenish Inventory between Active Locations in Packs and Cases

To provide more flexibility during replenishment, you have the option to replenish inventory between active locations in packs and cases. This option enhances operational efficiency by streamlining the restocking process, reducing the frequency and complexity of individual item handling.

In the **Inventory Allocation Mode Sequence** UI, you can configure the replenishment rule sequence with a destination location type and source location type of Active and an Allocation UOM of Packs or Cases. Replenishment considers movement of inventory from source active locations in the UOM for Packs and Cases based on the item's standard case quantity only.

Note: Round Up by one UOM is also supported.

Important Points to Consider

- WMS does not support replenishment from active locations in non-standard pack or case quantity as we do not track pack or case quantity in active locations.
- This feature will not work if you have non-standard pack or case quantities for the SKU's in your workflows.
- The Source and Destination locations need to be different and configured explicitly for the Active to Active (or Reserve to Reserve) replenishment template to work. The system will error out if this is not configured.

To enable replenishing inventory between Active Locations in Packs and Cases:

1. Go to **Work Order Wave Template** -> **Inventory Allocation Mode** -> **Inventory Allocation Mode Sequence**.
2. Set the desired sequence, allocation method, and allocation UOM as either Packs or Cases.

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.

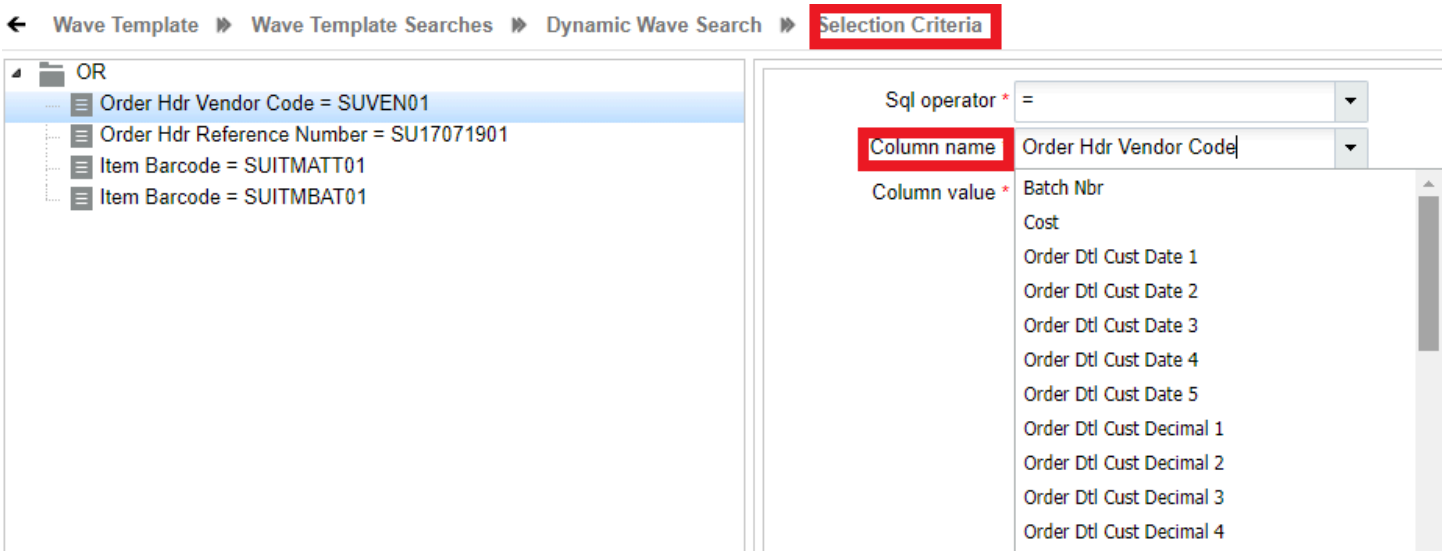
The Dynamic Wave Search button allows you to associate customized order search definitions to wave template order searches. It gives you more customization and power for your wave template searches.

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 pop-up 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

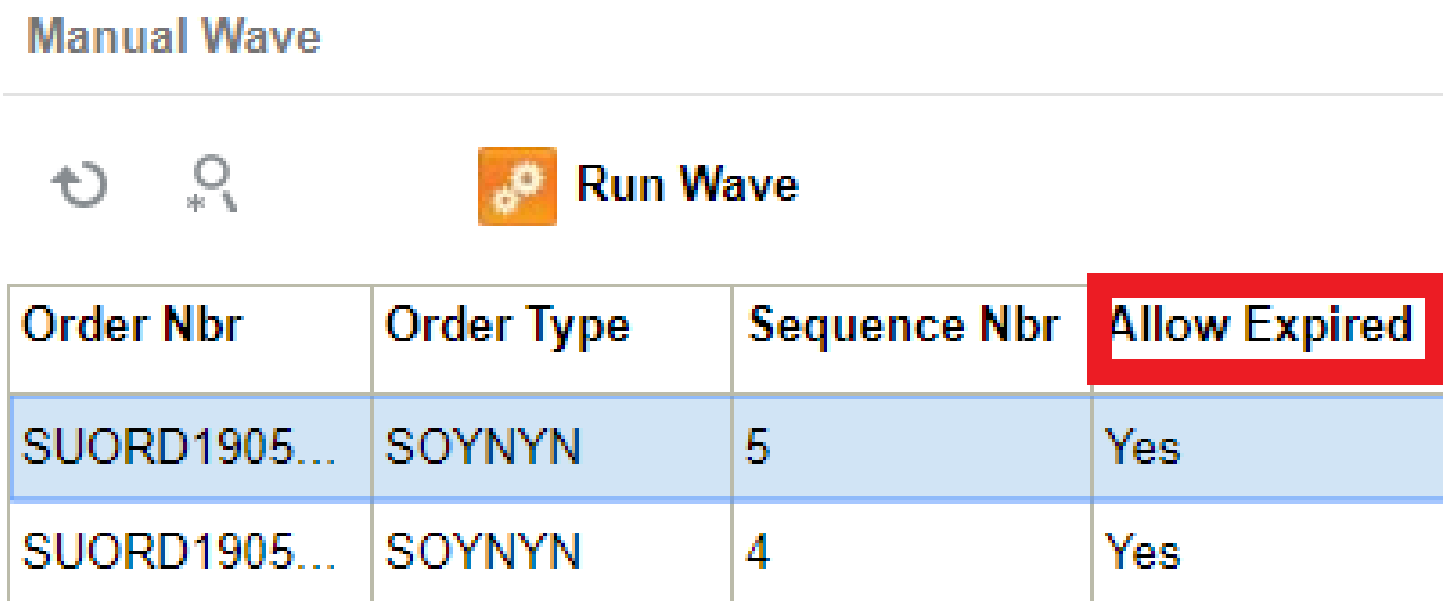
You can use manual waves to run waves at the order detail level. You can select multiple lines by holding *Shift* and selecting the desired order detail records to allocate.

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.



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. For example: Quantity Allocated: 12 (0 LPNs)

Wave Status

From **Wave Inquiry**, you can view the Wave Status for all existing waves. The following table lists the statuses with conditions:

Wave Status	Description
Not Ready	Wave has not been created yet.
Created	Wave has been created.
Processing Started	Wave processing is in process.
Failed	Wave has failed.
Completed, Nothing Allocated	Wave has completed, but with no orders allocated.
Completed, Not Fully Allocated	Wave has completed, but orders are partially allocated.
Completed	Wave is complete.
Cancel in Progress	Cancellation of wave has started but is not complete.
Cancelled	Wave has been cancelled.

Current Stage

You can easily fetch the **Current Stage** of waves via the following API:

```
wms/lgfapi/v10/entity/wave_stage
```

You can also view the **Current Stage** from Wave Inquiry. The following table lists the statuses with conditions:

> **Note:** The Current Stage indicates the stage was initiated. However, the actual status may vary depending on any associated rules or templates configured.

Current Stage	Conditions
Orders Selected	The orders included in the wave have been selected.
Replenishment Started	Replenishment is in progress.
Allocation in Progress	Allocation of order inventory is in progress.
Allocation Sequence Done	Allocation of order inventory is complete for the wave.
Cubing Done	Cubing for orders is complete.
Routing Done	Any route sequencing needed for the wave is complete.
Pack with Wave Completed	Outbound load picking and packing are done.
Tasks created	Wave tasks have been created. **Note:** "Tasks created" indicates the **stage** that task creation was attempted. It does not necessarily mean tasks have been created as this would depend on the specific task creation rules.
Printing Started	Printing of wave packing slips has started.

Current Stage	Conditions
	Note: "Printing started" indicates the **stage** that printing of packing slips was attempted. Actual printing depends on the correct configuration of label templates.
Printing Done	Printing of wave packing slips is complete.
Tasks Released	Wave tasks are released to initiate picking and packing.

You can also click "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 the "Allocation" button.

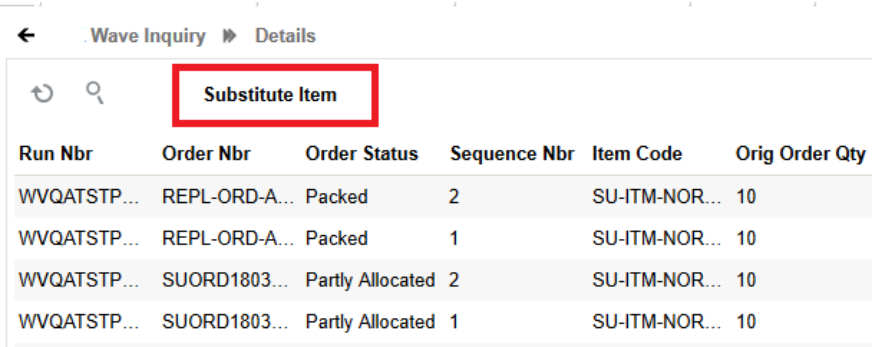
The **Allocation** screen includes information such as the Task number created and its Task Type, the Order's allocated and its SKU/Qty, where it was allocated from, and its From and To LPNs (the first "LPN" denotes the IBLPN in the inventory it was allocated to and the second "LPN" denotes the final 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.



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.

Cancel Picking Allocation from Wave Inquiry UI

Use **Cancel Picking Allocs Only** in Wave Inquiry to cancel the picking allocations for a replenishment-with-picking wave while retaining its replenishment allocations. This action helps you stop picking work when demand changes or orders are canceled, without interrupting replenishment work that is still needed to stock the warehouse.

A replenishment-with-picking wave contains two allocation types:

- **Picking allocations** reserve inventory for order fulfillment.
- **Replenishment allocations** move inventory to replenish warehouse stock.

The **Cancel Picking Allocs Only** action cancels only the picking allocations for the selected wave. The system retains the replenishment allocations so replenishment work can continue.

When you use the action, the system also updates the records associated with canceled picking allocations, such as tasks, orders, and inventory history transactions.

> **Note:** The action is available only for replenishment-with-picking waves. It is unavailable for picking-only waves, replenishment-only waves, and other wave types. The action becomes unavailable after picking starts for the wave. The facility setting `UNDO_WAVE_EVEN_AFTER_PICKING` continues to control whether the action is permitted.

To make the action available:

- Grant the user role the permission used for **Undo Wave**.
- Configure Wave Pick Info output processing if your facility requires output files after wave changes.
- Review the `UNDO_WAVE_EVEN_AFTER_PICKING` facility setting and ensure that it aligns with your wave-cancellation policy.

Steps to enable:

- Sign in with a user role that has the **Undo Wave** permission.
- Open **Wave Inquiry**. Search and select a **Replenishment with Picking** wave.
- Click **Cancel Picking Allocs Only**.

- Confirm the action. The system cancels the picking allocations and retains the replenishment allocations. If configured, the system regenerates the Wave Pick Info output file.

  Note: This action does not cancel replenishment allocations. Use **Undo Wave** only when you intend to undo the complete wave.

Printing Pick Tickets

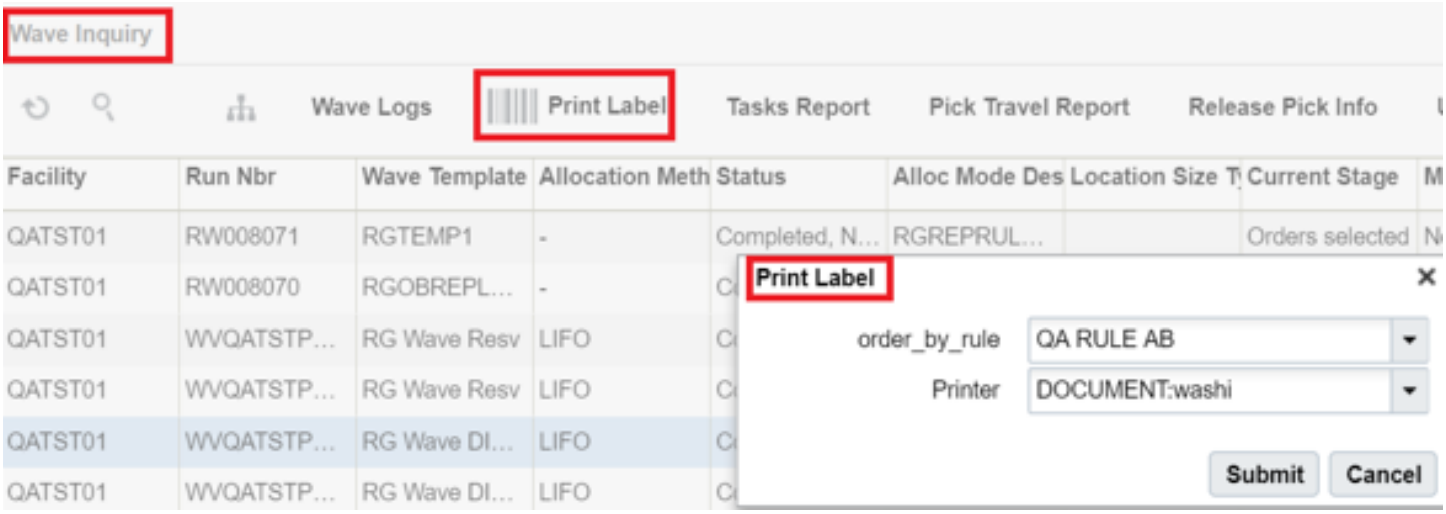
Once a wave is complete, users can use the “Print Label” button to print outbound carton labels for the picking team. They can use these labels to begin a task by scanning the label barcode rather than selecting an arbitrary Task Number from the RF.

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 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 ‘Allocation 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.



Picking

Order picking is the process of collecting items from a warehouse to complete customer orders. This process is an important part of order fulfillment. Order pickers are are responsible for gathering items from the warehouse and

adding them to customer orders. Effective order picking depends on speed and accuracy, as delivering orders quickly with the right items can improve customer satisfaction.

See the topics in the following sections 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 Mobile device 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. Because this is a Full LPN task, WMS will recognize the LPN's contents. The mobile device 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 mobile device with the task type filter.

4. Begin the pick by scanning the IBLPN.
5. When all the LPNs have been picked, the mobile device 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 mobile device 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 mobile device 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 mobile device 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).

Pick into Multiple Outbound LPNs in a Single Run (Multi-LPN Mode)

Pickers can now open and pack into multiple Outbound LPNs simultaneously during non-cubed picking, enabling them to:

- Pack multiple LPNs at once
- Build stable pallet/carton bases by placing heavy items first and lighter items on top
- Switch between LPNs on demand when the next item fits better on a different pallet/carton
- Create a new Outbound LPN as needed without closing the current one

Configurable Flow Options

Use the **multi_lpn_mode** screen parameter to dynamically create multiple outbound LPNs, while there is an existing Outbound LPN still in-packing for the same task/order/destination.

The behavior is as follows:

Parameter	Behavior
multi_lpn_mode	• When ***multi_lpn_mode*** is set to ***allow multiple lpns*** (along with the parameter value of ***pallet_prompt set to*** (*Yes*) , the system allows dynamic creation of multiple outbound LPNs • When set to no, defaults to the behavior of allowing only one OBLPN to be created and picked into at a time. A pallet can still be scanned or not depending on the pallet_prompt value set..
pallet_prompt	Yes/No Note pallet prompting will be allowed regardless of the multi-lpn mode.)

Streamlined LPN Switching

The (**CTRL N** - **Switch OBLPN**) RF command allows the picker to scan and start packing into another Outbound LPN while keeping the current LPN available to return to (switch only when requested).

Close All LPNs at Once

In Multi-LPN Mode, the existing CTRL E command is invoked to close all OBLPNs processed in that session:

- CTRL-E closes all Outbound LPNs opened in the current session (tasked or non-tasked and order-based.)
- OBLPNs may also be automatically closed when all allocations are completed
- In only the multi-lpn mode, CTRL-E can display a confirmation showing how many LPNs will be closed before proceeding
- Also a drop location will be prompted for when **Ctrl E** is invoked.

  Note that in case of partial picking user will have the option to Ctrl-W or Ctrl-X out of the oblpn scan screen and task being in-progress, system will prompt for a drop location here.

If outstanding picks remain when closing, the system will split remaining allocations into a new task while completing the current task and closing the associated LPNs. This reduces unnecessary travel and drop cycles, improving picker throughput and equipment utilization.

"UNDO SKIP PICK" TO RECOVER FROM ACCIDENTAL SKIPS

Non-cubed picking often requires fast navigation, and accidental skips can slow execution. This update introduces a way to reverse an unintended skip during active picking.

A new RF control command, (**CTRL-U: Undo Skip Pick)** lets users step backward through skipped picks, one skip at a time.

How Undo Skip Pick Behaves

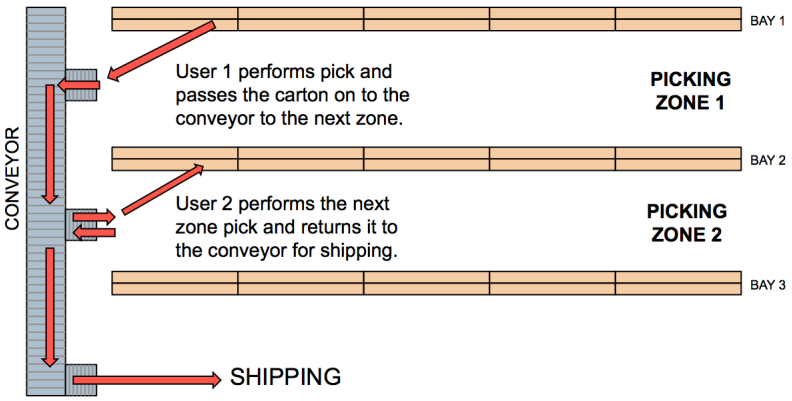
Undo is available only when a forward skip occurred previously. If a picker skips multiple times, they can undo the same amount of times to return to the original pick.

Behavior aligns with the existing company parameter TRACK_INVN_ATTRIBUTES_IN_OUTBOUND_FLAG, meaning undo will reverse whatever the skip action applied to (single pick vs. all picks for an item.)

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 “Generate Screens” and select the module entitled “RF-Text: Pack NC Active {order}”.
3. Select the module and click details icon.
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)	While picking, the system prompts for a new Outbound Container when the picked order points to different destination. When the 'Zone Picking' parameter is set, then the 'break picks by destination' will not be considered and you continue with the same Outbound LPN.
	3- Order	While picking, the system prompts for a new Outbound Container when picking a different order. When the 'Zone Picking' parameter is set, then 'break picks by Order' will not be considered and you continue with the same Outbound LPN.
Retain Close LPN on Task	Yes	When this parameter is set to 'Yes', as soon as you close the LPN by using CTRL-E, WMS does not prompt for drop location and does not remove the LPN from the task. To perform zone picking without moving the LPN's on the conveyor or if Zone picking is not done, it is advisable to set this parameter to Yes.
	No	When this parameter is set as soon as the user closes the LPN by using CTRL-E, WMS prompts for a drop location and removes the LPN from the task. Setting this parameter to 'No' ensures that Zone Picking is done with Single Outbound LPN being moved across different pick zones. If the LPN reaches its capacity, select CTRL-E and the system will prompt for a drop location.

Note: You can configure the **Pack NC Active Order (rf.outbound.cwrfpackncactiveorder)** screen to display list of batches available in a location/LPN, after you scan an item. To enable RF prompting of batch selection, set the "select-batch" screen parameter to Yes. For more details on the screen parameter behavior, refer the "Screen Parameter Quick Reference File" document on the Release Documentation MOS page.

- This applies when the screen parameter "item-barcode-scan" is set to "Prompt SKU"/"Scan Each SKU".
- If the location only contains one batch, the system does not prompt for batch.

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 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 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.

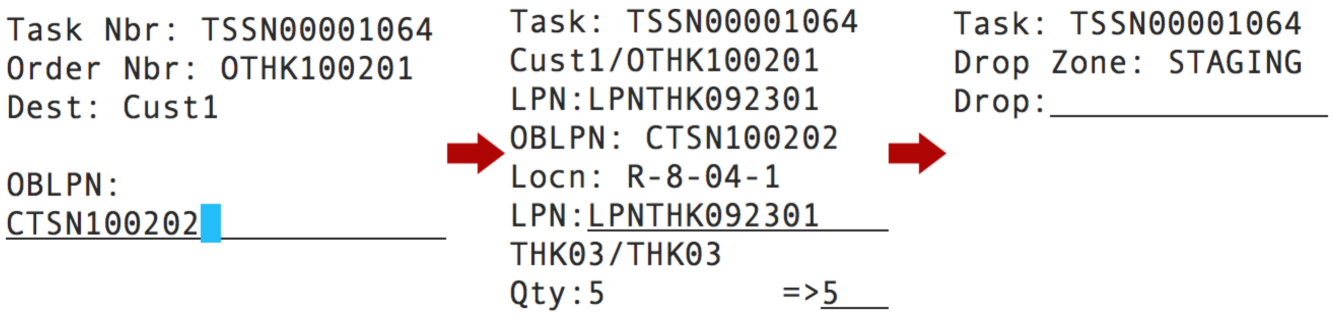
> **Note:** If there is inventory in any location that is being modified, you must first set the “LOCATION_UPDATES_WITH_INVENTORY” parameter to “Yes” in the “Facility Parameters” screen.

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. Go to the “Execute Task” module and enter the pick zone task.
2. To begin picking, the mobile will prompt you with an OBLPN to pack the merchandise to.
3. One the OBLPN is initiated, the picking process will begin. The mobile 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 mobile 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.

6. At this point, the picking process will repeat itself until the LPN reaches the last pick zone and all of the units are picked. When the last pick is complete, the mobile will prompt you for a destination zone (if configured).



7. When the task is complete, the mobile device will return to the Task list.

Zone Picking without a Drop Location

Zone picking (also called pick and pass) is an order picking strategy that aims to make the order picking process more efficient. Zone picking reduces stress on the picker as they are restricted to limited areas/ zones. This type of picking can be combined with manual push type conveyors as well.

For many warehouses, especially those with high stock keeping unit (SKU) counts and a variety of order types, zone picking is the optimal picking method, either alone or in combination with other picking strategies that can further enhance productivity. Zone Picking without a Drop Location allows one to you to pick from different pick zones without going through drop locations/zones.

In WMS, when you are using the **Pack NC Active** module with the Zone Picking parameter, “Zone Picking without Drop” parameter choice, the drop location scan screen will display if the task contains picks from multiple zones. This option works with only single outbound LPNs. This parameter overrides the “break-picks-by-parameter .”

In this section, we are going to provide an example flow for **Zone Picking without a Drop Location**.

RF Module and Configuration	Details
RF Execute Task Screen - **task-determination-by parameter** is set to Task Description “**nearest-task-to-search by: Pick Zone”**	When you go to the Execute RF screen, the system prompts you to scan the Task Description. After you scan the Task Description, the system lists all of the Tasks associated with the Task Description.
RF Pack NC Active {order} is configured with the **Zone Picking** parameter, and “**Zone Picking without Drop”** parameter choice.	The Location has been configured with a Pick Zone. In a single Task, the inventory will be picked from different Pick Zones.

Configuration

In this example, we are picking from Reserve and Active locations.

1. First, you will create three Reserve locations. Each reserve location belongs to a different pick Zone:

Locations

Print Label Rebuild in Transit Units

Facility	Dedica	Type	Locat	Barcode	Display text	Item Assigni	Pick Sequence	Pick Zone
QATST01	QAT...	Rese...		SYRES300801	SY-RES-3008-01	Dynamic	01	SYRESPZ1
QATST01	QAT...	Rese...		SYRES300802	SY-RES-3008-02	Dynamic	02	SYRESPZ2
QATST01	QAT...	Rese...		SYRES300803	SY-RES-3008-03	Dynamic	03	SYRESPZ3

- Then, create six Active Locations:

There are three Pick Zones. In each Pick Zone there are two Locations:

Locations | Order Header | Task type | Screen Configuration | Wave Template | Wave Inquiry

Locations

Print Label Rebuild in Transit Units

Facility	Dedica	Type	Locat	Barcode	Display text	Item Assigni	Pick Sequence	Pick Zone
QATST01	QAT...	Active		SYACT300801	SY-ACT-3008-01	Dynamic	01	SYPICKZ1
QATST01	QAT...	Active		SYACT300802	SY-ACT-3008-02	Dynamic	02	SYPICKZ1
QATST01	QAT...	Active		SYACT300803	SY-ACT-3008-03	Dynamic	03	SYPICKZ2
QATST01	QAT...	Active		SYACT300804	SY-ACT-3008-04	Dynamic	04	SYPICKZ2
QATST01	QAT...	Active		SYACT300805	SY-ACT-3008-05	Dynamic	05	SYPICKZ3
QATST01	QAT...	Active		SYACT300806	SY-ACT-3008-06	Dynamic	06	SYPICKZ3

The Execute Task screen parameter is set to task-determination-by parameter, and the Task Description “nearest-task-to-search by: Pick Zone”

In the Task Creation Template UI, no Selection Criteria has been configured, and the Ordering Criteria has been set to Order Header, Order Number with a Break by Count = 1 in Reserve and Active locations.

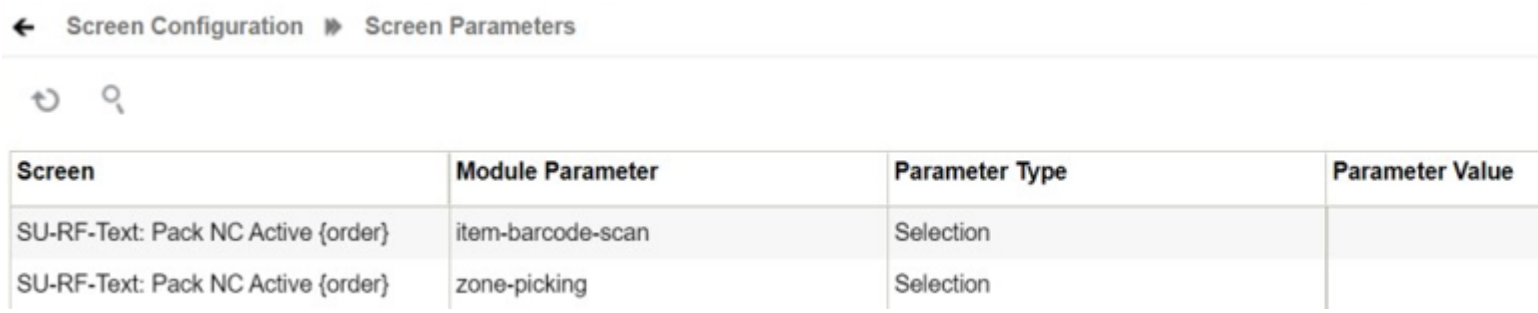
Task type | Screen Configuration | Wave Template | Wave Inquiry | Task creation Template

Task creation Template » Details

Selection Criteria Ordering Criteria

Task Creation T	Sequence Nbr	Task type	Break By Quant	Break By Weigh	Break By Volum	Selection Cr
SY_TASK_Z...	2	SY NC Active	0	0	0	AND
SY_TASK_Z...	1	SY NC Reseve	0	0	0	AND

For **Pack NC Active**, we have configured the **zone-picking** module parameter with the **Zone Picking without Drop** parameter choice.



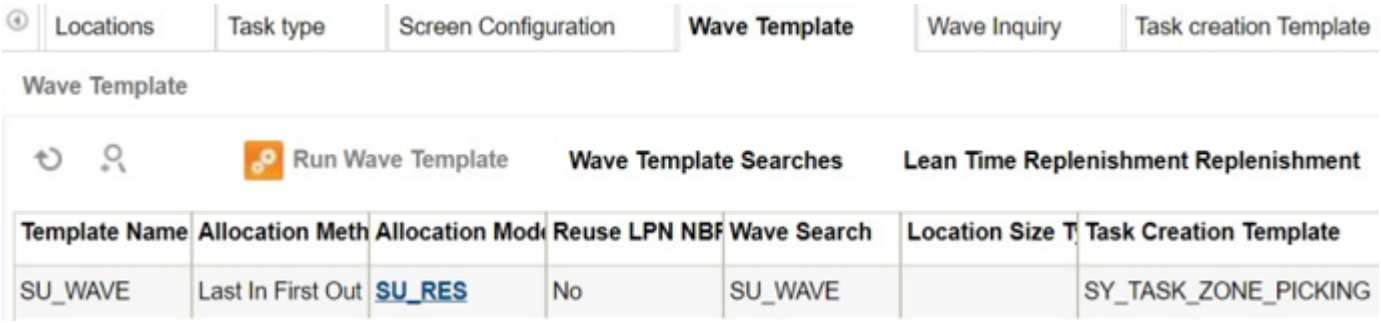
Screen	Module Parameter	Parameter Type	Parameter Value
SU-RF-Text: Pack NC Active {order}	item-barcode-scan	Selection	
SU-RF-Text: Pack NC Active {order}	zone-picking	Selection	

There is a total of three orders created:

- order-1 (SUORD30082205) has 5 details
- order-2 (SUORD30082206) has 1 detail
- order-3 (SUORD30082207) has 1 detail

You will be able to see the current quantity in the Active Inventory UI and the status is now currently “Located” in the IBLPN UI.

In the task creation template in the wave, the Allocation is from Reserve and Active.



1. Run the wave template for all three orders with the above data setup.
   In the Wave Inquiry Screen, the system has created a fourth task. There is one task for Reserve and three Tasks for Active. You will be able to see the that the status in the Task UI is “Ready” and “Allocated” in IB LPN UI. In the Active Inventory UI, the status is Active and in the Order UI, the status is “Allocated.”
2. Next, in the Execute Task screen, scan the Reserve location Task
3. Enter 1 and Execute the TASK00104993 to pack the SUORD30082205 OBLPN. As we have run the wave in non-cubing mode, the system prompts you to scan the blind OBLPN:

The system displays all of the tasks that are associated with the task description. In the above data setup, we have one task, so the system displays one task in the task list screen. Once picking all the inventory from that pick zone is complete, the system prompts “No more picks for Zone.”

After you accept the message, the system navigates back to the task list screen. Since there is no task for that task type, the system prompts “no more tasks”.

In the **Tasks** UI, the status is now in**“ Drop/Between Zones ”**status.

Continue Picking – Zone 2

1. Next, in mobile Pack NC Active, press CTRL+P and scan the OBLPN number in order to continue picking the inventory from another Zone.
   During this step, now the floor user finds out that the OBLPN is full after adding 5 units so he will press CTRL+E to end the current OBLPN. After accepting, the system prompts you to scan the new OBLPN.

2. Scan the new blind OBLPN:

After picking all the inventory in Zone 2 (SYRESPZ2), the system prompts “No more picks for zone.”

Picking - Zone 3

1. To resume picking the inventory in the next zone (Zone 3 (SY-RES-3008-03), scan the OBLPN that is in packing status and associate it to the task:

   After picking all of the inventory for that task, the system prompts “Task Ended. Do you want to end all the OBLPNs.”
2. Next, scan the task type description in the Execute RF screen to Execute Active task:

   The system displays all the tasks that are associated with that task description. In the above data setup, we now have three tasks, so the system displays three tasks in the task list screen.
3. Now enter 1 and Execute the TASK00104994 to pack the SUORD30082205.
4. As we have run the wave in non-cubing mode, the system prompts you to scan the blind OBLPN.

Once picking all the inventory from that pick zone is complete, the system prompts “No more picks for Zone.” After you accept the message, the system navigates back to the task list screen.

> **Note:** If you have any additional zones to pick from, repeat the same steps noted above. You would next scan the OBLPN that is in packing status and associate it to a task.

Once all zone picking is complete, you will be able to see the status in the WMS Activity UI and activity history in the Inventory History UI.

Optimize Pick Locations with Reslotting Workbench

The **Reslotting Workbench** enables you to realign inventory pick locations based on current Item velocity (ABC rankings). It identifies mismatches between item velocity and location rankings and generates replenishment tasks to re-slot the material. This helps to maintain optimal pick paths, reduce manual effort, and improve picking efficiency.

Reslotting Workbench UI

The intuitive **Reslotting Workbench** (UI) is designed to help warehouses optimize inventory placement based on product velocity, seasonality, and demand patterns. This UI helps improve operational efficiency by reducing picker travel times and congestion with smarter inventory placement.

You can view important location and item details and Key Performance Indicators (KPIs) all in one Workbench style display:

Reslotting Workbench

Reserve
40
mismatches

Active

Search

Location Barcode | Location Type | Aisle | Area | Alloc zone | Rep

Refresh | ...

	Location Barcode	Location Type	Aisle	Area
☐	LOC150007	Active	AIS150007	ARE15
☐	LOC150004	Reserve	AIS150004	ARE15
☐	LOC149998	Active	AIS149998	ARE14
☐	LOC149995	Reserve	AIS149995	ARE14
☐	LOC02	Active	x	LOC02
☐	LOC01	Reserve	x	LOC01

On the left pane, the UI includes a user-friendly data grid where you can Search, filter, and sort by critical fields such as Location, Ranking, Item, Facility, Inventory Cost, and more.

Note: For the Workbench Graphs, we will only allow up to 6 rankings to be displayed on the graph.

The Reslotting Workbench UI has following features for better visibility into record history and improving data integrity

- Timestamp for Mismatch Records: The UI displays the timestamp for when reslotting mismatch records are created, providing clearer record history and auditability.
- Improved Data Visualization: The "Mismatches by Location Ranking" chart includes graph bars for zero values, ensuring a complete and accurate visualization of all data.
- Streamlined Task Template Selection: The task template dropdown is optimized to only show relevant templates ("Replen LPN" and "Consol Replen"), making it easier to select the correct option.
- Data Integrity Check: Before generating reslotting tasks for selected mismatch records, the system performs a final check to ensure the mismatches still exist. This helps maintain data integrity and prevents unnecessary task creation.

Viewing the Graphs

When you are viewing the Workbench Graph KPIs / Location Capacity by Ranking, you can toggle between 3 metrics.

- You can view **Active Locations** metrics by: Volume, Weight, Units
- You can view **Reserve Locations** metrics by: Volume, Weight, LPNs

Note: The colors for the bars on the charts will always display in the same order. (that is green, orange, teal.) The colors are not based on their Ranking.

Initiate Reslot Movement Action Button

The **Initiate Reslot Movement** action button will create a request in order to send the selected records to a drop location. This button is permission-based.

Generate New Report

You can click **Generate New Report** to run a new report with all of the Reslotting details from the Workbench UI for further analysis. You will see a buffering icon while the new report is being generated. You can click the CSV Export button to download to CSV format.

Note: Only users with supervisor-level permissions can invoke it.

Location Ranking Field in Location UI/Patch API and Input Interface

You can also use the Location Capacity Metrics GET API to generate the **Reslotting Workbench** metrics in a stacked bar chart format. This will display Location data such as volume, weight, and LPNs.

Configuration for Velocity Code and Location Ranking

To configure an item's Velocity Code Ranking, use the **Item-Facility Velocity Code** field in the **Item Facility** UI. This value can be set Manually, via **Init Stage** API, or Input Interface upload.

Velocity Code Field

To configure an item's Location Ranking, use the newly introduced **Location Ranking** field on the **Locations** UI. This value can be set Manually, via **Init Stage** API, or Input Interface upload.

Location Ranking Field

> **Note:** For the Location Ranking and Item Velocity Code Ranking to work, they both MUST match in naming convention.

FOR EXAMPLE:

- **Item Velocity Codes**: A, B, C, D and **Location Rankings**: A, B, C,D or
- **Item Velocities**: Hot, Fast, Medium, Slow and **Location Rankings:** Hot, Fast, Medium, Slow.

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

Cubing Mode	Value and Comments
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:

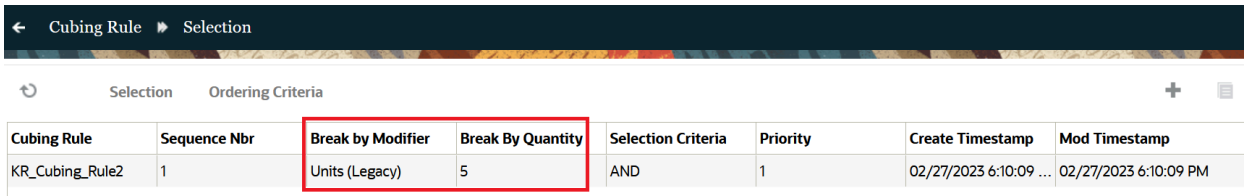


   a. Sequence Nbr*: Populate the sequence number.

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 an 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 Criteria	Priority	Create Timestamp	Mod Timestamp
KR_Cubing_Rule2	1	Units (Legacy)	5	AND	1	02/27/2023 6:10:09 ...	02/27/2023 6:10:09 PM

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 "Ordering Criteria". This is the screen used for adding breaking logic.
6. Create new breaking criteria for cartons from the drop-down in the "Order by column" field.
7. Populate a number in the "Break by Count" field to configure how much it should break by.

> **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 count	Cube Together
KR_Cubing_Rule2	10	Order Dtl Shipment Nbr	10	No

Viewing the Cubed LPN Numbers and Quantities

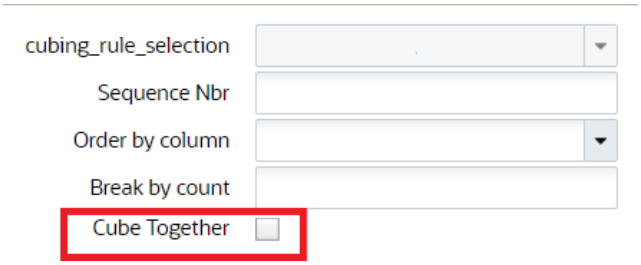
1. Go to the Wave Inquiry screen.
2. Select the wave number to inspect and click the "Allocations" button.
3. The second "LPN" column (outbound LPN) should be populated. This means that the allocation record has been cubed to that Outbound LPN number.
4. To view what OBLPN Type it was assigned to, follow these steps:
   a. Go to the "Allocations" screen.
   b. Add a search filter for either the IBLPN Number in the "IB LPN Nbr" field or the OBLPN number in the "Ctn Nbr" field.
   c. Click "Search".
   d. The column "allocation_oblpn_type" will be populated with the OBLPN Type it was assigned to.

Working with the Cubed Together Flag

Cubing is the process of grouping inventory into outbound containers based on the maximum volume and maximum weight defined at the container type level. The computation of volume and weight is based on the items/weight/

volume dimensions defined at the item's appropriate Unit of Measure (UOM) level. The cubing rules feature allows customers to define how cubing should take place. It is based on various breaking criteria such as weight, volume, and other item attributes within the max volume and max weight limits.

In the **Cubing Rules UI → ordering criteria**, there is an additional flag called **Cube Together**. This flag allows you to group inventory within a container. In other words, if your ordering criteria is set to Order dtl cust field 1 and the flag cubed together is set to **yes**, all of the order details for the unique order dtl cust field 1 will be in the same box without being limited by break by count.



Note: If the wave template rule has an LPN Type configured, cube together will not include allocations that have been cubed into that default LPN Type.

Cube Together Example

You may want to include a shipment of books together for one classroom. In your order you are saving the class id in the Order dtl cust field 1, and you have the cubed together flag set to yes. If the complete class fits in a box, all contents for that class will allocate to one box.

If another class's contents can completely fit in the same box, then the system will add the class contents to this box. However, if a complete class cannot fit into a box, it will get a full box and it's remaining items can still be combined with other classes that can fit completely in that box. This will reduce the occurrence of classes getting spread out and mixing with other classes.

Cubing Logic

WMS will first check to make sure that product for the same order going to the same customer destination (in this example, a classroom) is cubed into the smallest possible OBLPN type. This is so that all product going to a single classroom will be cubed into a single box wherever possible, making it easier for teachers to sort the books.

You may have scenarios where you are shipping several products, but you need to keep some of the products for the same individual or customer in the same box. Using the example of a school, you need to split products for a single classroom into multiple OBLPns, but you want to keep products for one student in the same OBLPN.

Once all classroom OBLPNs are created, next, cubing will combine multiple classrooms on the same order into a single OBLPN wherever possible given the item and OBLPN type dimensions. This allows you to reduce shipping costs. Instead of shipping one box for every classroom, if product can fit, you can send multiple classrooms in a single box while keeping all of the product for a single classroom together.

Product going to the same classroom should never be split across multiple OBLPNs if it can fit in a single OBLPN. Orders eligible for consolidation will follow the same cubing logic as non-consolidation orders, except all product for ALL orders on the same wave must be considered, as opposed to product for one order at a time.

Configuration and Use Cases

Use Case 1 – Department Store

In the following example of a Department Store, when you have the Cube Together flag set to No for the Order Number, orders will not be spread across multiple boxes. When you have the Cube Together flag set to yes for the Order Detail and Item group code, multiple orders can be cubed in a single box.

Column	Cube Together (Yes/No)
Order_Number	No
Item group code	Yes
Order Dtl Cust Field 1 (Department)	Yes
Behavior	In this example, we need to cube together for a department store and ensure each department has all of the items from their order in one box, and item group codes are all in one box. While performing cubing, items for multiple departments within an order can be cubed in single box

The following tables are examples/use cases of how Cube Together functionality works using the configuration above of Order Number “No” and Order Detail Custom Field “Yes”:

OBLPN Type Configuration

This table (LPN Type Config) indicates the max volume for each box.

LPN Types	Max Volume
Box-1	40
Box-2	210
Box-3	400

In this use case, we are cubing by item, item group code, and department.

Order	Seq	Qty	Items	Item Group code	Volume	Department
Ord1	1	10	Boots	Shoes	140	Women
Ord1	2	5	Tennis	Shoes	50	Women
Ord1	3	5	Sandals	Shoes	30	Women
Ord1	4	10	Necklace	Jewelry	20	Jewelry
Ord1	5	5	T-Shirt	Clothes	30	Men

Order	Seq	Qty	Items	Item Group code	Volume	Department
Ord1	6	5	Pants	Clothes	60	Men
Ord1	7	5	Sweaters	Clothes	100	Men

Shoes are going into box 3, and jewelry and clothes are going into box 2.

Carton	Item	Item Group Code	Qty	Department	LPN Type
LPN1	Boots	Shoes	10	Women	BOX-3
LPN1	Tennis	Shoes	5	Women	BOX-3
LPN1	Sandals	Shoes	5	Women	BOX-3
LPN2	Necklace	Jewelry	10	Jewelry	BOX-2
LPN2	T-Shirt	Clothes	5	Men	BOX-2
LPN2	Pants	Clothes	5	Men	BOX-2
LPN2	Sweaters	Clothes	5	Men	BOX-2

In this case, the necklace could have gone in its own box, but you allow it to be cubed together with the other LPN2 items, as long as things are not being split.

Use Case 2 - School

The following is another example of having Cube Together flag set to No for the Order Number and Yes for the Order Detail. When you have the Cube Together flag set to No for the Order Number, orders will not be spread across multiple boxes. When you have the Cube Together flag set to yes for the Order Detail, multiple orders can be cubed in a single box.

Column	Cube Together (Yes/No)
Order_Number	No
Order_Dtl.Custom_field_2 (Student)	Yes
Behavior	In this example, we need to cube together for multiple students and ensure each student has all of the books from their order in one box. While performing cubing, books for multiple students within an order can be cubed in single box, books for single student will not be spread across multiple boxes.

The following tables are examples/use cases of how Cube Together functionality works using the configuration above of Order Number “No” and Order Detail Custom Field “Yes”:

In this use case, we are cubing by student and classroom. Ann (first grade) needs three books, Mark (first grade) needs two books, Lisa (second grade) needs two books, and Tom (second grade) needs two books.

Order	Seq	Qty	Student	Classroom	Item	Destination
Ord1	1	1	Ann	First Grade	Math1	XYZ Middle School
Ord1	2	1	Ann	First Grade	Science1	XYZ Middle School
Ord1	3	1	Ann	First Grade	History1	XYZ Middle School
Ord1	4	1	Mark	First Grade	Math1	XYZ Middle School
Ord1	5	1	Mark	First Grade	History1	XYZ Middle School
Ord1	6	1	Lisa	Second Grade	Math 2	XYZ Middle School
Ord1	7	1	Tom	Second Grade	Math 2	XYZ Middle School

In this example, LPNs are split up by student. LPN 1s are going into BOX-2 and LPNs 2,3, and 4 are going into BOX-1.

OBLPN Type Configuration

The following table lists the LPN Type configuration. The max weight for box 1 is 4 pounds. The max weight for box 2 is 2 pounds.

LPN Types	Max Weight
Box-1	2
Box-2	3
Box-3	5

Carton	Student	Class	Qty	Item	LPN Type
LPN1	Ann	First Grade	1	Math1	BOX-2
LPN1	Ann	First Grade	1	Science1	BOX-2
LPN1	Ann	First Grade	1	History1	BOX-2
LPN2	Mark	First Grade	1	Math1	BOX-1
LPN2	Mark	First Grade	1	History1	BOX-1
LPN3	Lisa	Second Grade	1	Math2	BOX-1
LPN4	Tom	Second Grade	1	Math2	BOX-1

In this example, LPNs are split up by classroom. LPN 1s are going into BOX-3, and LPN 2s are going into BOX-1.

Carton	Student	Class	Qty	Item	LPN Type
LPN1	Ann	First Grade	1	Math1	BOX-3
LPN1	Ann	First Grade	1	Science1	BOX-3

Carton	Student	Class	Qty	Item	LPN Type
LPN1	Ann	First Grade	1	History1	BOX-3
LPN1	Mark	First Grade	1	Math1	BOX-3
LPN1	Mark	First Grade	1	History1	BOX-3
LPN2	Lisa	Second Grade	1	Math2	BOX-1
LPN2	Tom	Second Grade	1	Math2	BOX-1

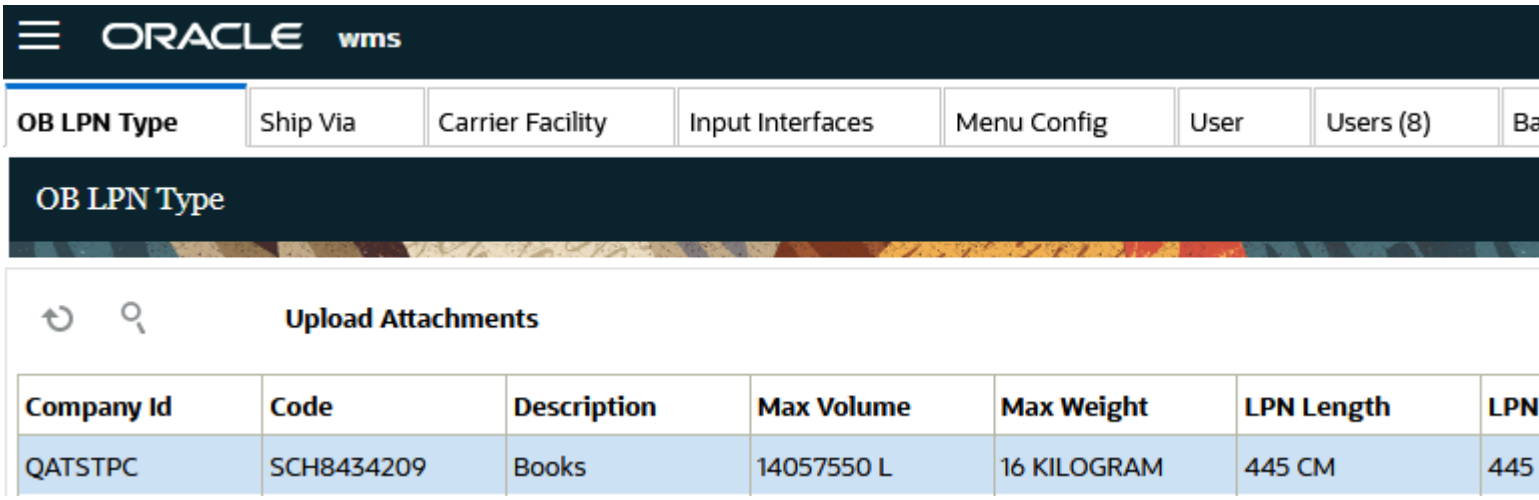
Multi-Pass Cubing Workflow

To set up a shipment which allocates several order items in one box, complete the following steps:

- Go to the **Order Headers** screen.
- Click **Order Detail**.

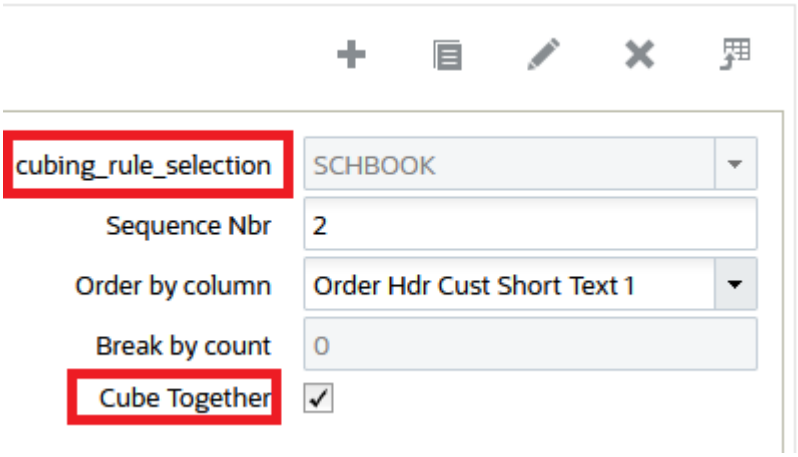
Let's say you have twelve items that you want to have shipped together.

From the Outbound LPN Type screen, you can view details for your OBLPN such as description, dimensions, and weight.



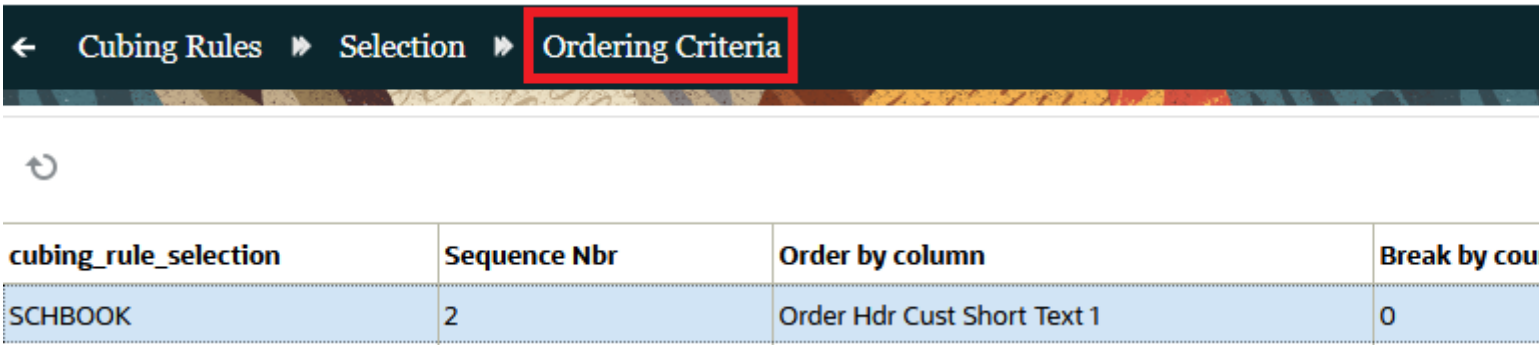
Note: currently WMS does not support 3D cubing.

From the Cubing Rule screen, click **Details, Selection**, and then **Ordering Criteria**. From Ordering Criteria, you must specify orders to be “cubed together” for your cubing rule.
When the Cube Together option is set, and your items reach a box’s capacity, Oracle WMS Cloud will automatically add any remaining items you specified to keep together in an additional box.



Note: In the case of normal break-by, all items in a box will have uniform criteria. Items with other criteria are not allowed, even if the box has unused capacity. With “Cube Together”, items of uniform criteria are still kept together but can share a box with items with other criteria.

Once you have completed your cubing rule specifications, they will display in Ordering Criteria.



cubing_rule_selection	Sequence Nbr	Order by column	Break by cou
SCHBOOK	2	Order Hdr Cust Short Text 1	0

Note: When you are editing your Ordering Criteria, if you try to specify a “Break by count” the Cube Together option will be grayed out and not accessible.

Advanced Constraint Model Cubing

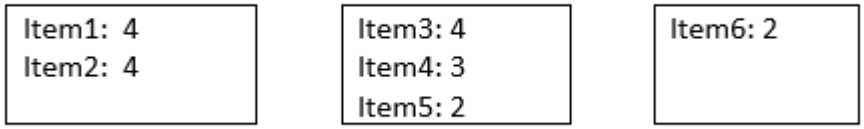
During the outbound process, one of the most common operations used is cubing, to calculate the outbound LPNs to be picked and packed. This is an area where, minimizing the number of Outbound LPNs to be shipped can improve pick/pack efficiency as well as reduce the amount of packaging used, this making this a good tool for sustainability. To support a more streamlined cubing process, we’re enhancing wave-based cubing modes 2 and 3 for cubed allocations, using a technology called Advanced Constraint Modeling which now results in fewer outbound containers in scenarios where there are larger shipping volumes.

Constraint modeling is an algorithmic AI technique that optimizes a solution given a set of constraints that must be followed. For example if the constraints are that each outbound LPN can have no more than two orders and no more

than 3 SKU's, constraint modeling is able to enforce these simultaneously while looking for solutions in the problem space. In a traditional approach, it is possible that some suboptimal LPNs may be generated.

Example

The current cubing feature of WMS use an algorithm that relies on strict ordering and capacity checks. For example, a configuration which orders by item barcode, allowing for up to three distinct items per LPN and targeting an LPN type with a max volume of 10 would yield the following results:

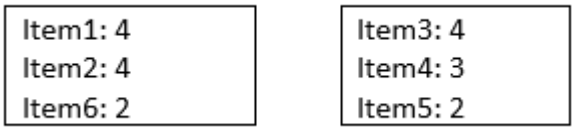


Configuration by Item Barcode

Resulting LPN utilization:

- LPN1: 80%
- LPN2: 90%
- LPN3: 20%

You will notice that a third LPN is required due to the algorithm preserving a strict ordering. By removing the requirement of strict ordering, the new cubing modes will now use a constraint model that enforces a constraint "no more than three distinct items per LPN."



No More than Three Distinct Items

Resulting LPN utilization:

- LPN1: 100%
- LPN2: 90%

In general, the cubing results when using the constraint model will result in fewer LPNs than when using the strict ordering algorithm. The main difference with the Constraint Based vs the current Regular Cubing algorithm, has to do with how the break-by criteria are considered:

Constraint Model Cubing	Regular Cubing
Uses an algorithm based on constraint modeling.	Uses an algorithm based on linear ordering.

Constraint Model Cubing	Regular Cubing
Outbound Containers created by considering all conditions at the same time.	Outbound Containers created using criteria that is strictly ordered.

We've added two new values to the Cubing Mode drop-down field in the Wave Template UI. The values are:

- Cube at wave with Constraint Model
- Cube at packing with Constraint Model

Cubing Mode

RECOMMENDATIONS

- Due to the requirements of solving complex combinatorial problems, the constraint model works best for company configurations that do not have too high precisions. The current default value for "*max weight volume Dimension decimal precision*" is 5. Although the constraint model will work with this level of precision, it is recommended to have this setting at 3 or below for better results.
- Note that SKUs that use integer UOMs are not affected by this.
- If it is not feasible to change the "*max weight volume Dimension decimal precision.*" There are two company parameters available which can be used to adjust the behavior of the constraint model: CONSTRAINT_BASED_CUBING_MAX_BATCH_SIZE (default value is 1024) and CONSTRAINT_BASED_CUBING_MIN_BATCH_SIZE (default value is 32).
- These parameters define the number of allocations being considered for cubing in batches.

  > **Note:** In case of excessive constraint based errors, the recommendation is to reduce the max allocations in factors of 2.

- Generally, these parameters can be decreased to prevent the constraint-based solver from encountering errors. It is unlikely that these should be increased, but doing so may result in slightly improved results (i.e., fewer LPNs).
- In case of the solver failing for any reasons unknown, there will be a generic error "Constraint based service returned an error." It is very unlikely any of these settings needs to be changed, since these limitations only affect fewer common scenarios.

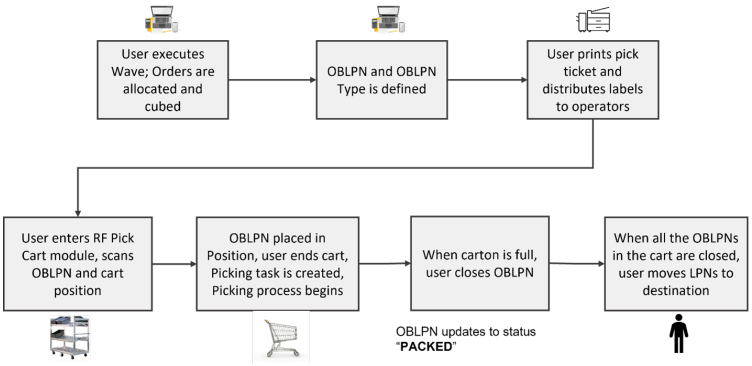
> **Note:** The Constraint Model does not support cubing rules with cube together feature.

Steps to Enable

In the **Wave Template** UI, set the Cubing mode value to **Cube at Wave or Cube at Packing with Constraint Model**. This will enable constraint-based cubing, along with other regular cubing configurations (like the Cubing Rule/break by criteria and so on).

Pick Cart

Pick Cart is a form of batch picking where you use a cart to pick and pack multiple orders on a single trip through the warehouse. A generic Pick Cart process in WMS is displayed below:



Pick Cart enables pick multiple orders concurrently into the final shipping container. The pick cart transaction might only be used to pick orders which are cubed into OBLPNs during the waving process. As OBLPNs barcodes are scanned onto the pick cart, the WMS automatically creates picking tasks. These tasks are then executed by warehouse employees who build the pick cart.

Note:

- Allocations for all OBLPNs on the pick cart will be sequenced by the pick sequence defined on the locations.
- To alert the pickers while performing Pick Cart (rf.outbound.cwrfpickcart) transaction, if the scanned OBLPN has replenishment dependent allocation(s), the system displays a warning message “Available Qty to Pick is insufficient for %OBLPN. Do you want to proceed?”. Before ending the cart in the transaction, the system displays the error message multiple times within the transaction, if you are scanning multiple OBLPNs with replenishment dependent allocations.
- During the Pick Cart picking process, the system doesn't prompt for confirmation of Batch, Expiry, or Attribute details in the event of a conflict when picking inventories of a SKU from an LPN /active location. This may lead to discrepancies between the actual picked inventories and the system-allocated inventories.

Configuring Pick Cart in the UI

Depending on the Cubing Mode, you can set your configuration starting with Allocation Mode:

Configure the Allocation Mode

1. Go to the “Wave Template” screen and click the “Allocation Mode” button.
2. Create an allocation mode from Allocation Mode screen and click “Save”.
3. Select the record and go to details () icon to access the “Allocation Mode Sequence” screen.
4. Create allocation sequence for the selected record.

Note: You need to set the “Cartonize UOM” field to **“Cubed”**.On running the wave, the system can cube units, packs, and case allocations but it doesn't mix different UOM allocations in one outbound container.

Add Cubing Rules

1. Go to the “Cubing Rules” screen and create a new cubing rule.
2. Select this record and click “Ordering Criteria”.
3. Create a new breaking criterion with the Create button; select the field you want to break the cubed container by (for example, “Order Number, Break By Count = 1” – this translates to “create a new carton for every order that is allocated in the pick cart wave”).

Define the OBLPN Types

The Outbound LPN Types are pre-determined carton types that are frequently used in the warehouse for packing. In WMS, these OBLPN Types are used for cubing during waving. OBLPN Types must be created for cubing to occur.

1. Go to the “OBLPN Types” screen.
2. Click the Create button to create a new OBLPN Type.
3. Populate all of the fields.
    - Code: refers to the OBLPN Type code.
    - Prefix: refers to the prefix of the LPN number when the container is created.
    - Max Volume/Weight, Length, Width, Height, and Empty Weight: populate the dimensions of the box type. These values will be considered during cubing.
    - Use for cubing: users can enable/disable OBLPN Types for cubing [1]. Check this box to use the current OBLPN Type.

Create the Pick Cart Wave Template

The last step in the configuration is to create a wave template.

1. Go to the “Wave Templates” screen.
2. Click the Create button to create a new template.
3. Populate the necessary fields. Note that a Task Template is not required.
4. Click “Save”.

Pick Cart Via Mobile

You can build your pick cart based on the following parameters available on the Pick Cart Transaction:

Parameter	Module Param Choice	Definition
default-reasoncode-onshort	Text	Determines if reason code should be prompted in event of shortage during picking pr • When set as 'Yes' - Upon shortage, you will be prompted to provide a reason coc • When set as 'No'/None - Upon shortage, you will NOT be prompted for reason c Instead, reason code will be picked from Company Parameters > SHORT_REASO configuration.
show-total-qty-info-for-location-sku	None|Yes|No	Displays the total units that are picked from a location for your whole cart when the pa set to Yes.

1

Parameter	Module Param Choice	Definition
		On scanning the location, the system displays “ Total quantity/Remainder quantity” • The total quantity is the quantity the user needs to pick up for that location for t • The remainder quantity is the quantity that will be reduced each time the user h the inventory for the SKU
opportunistic-summary-count	Text	On configuring a valid summary count screen name, the system enables the Opportu summary count functionality. By default, the field is blank, and the Opportunistic sum functionality will be disabled. When inventory in a location goes below threshold value post picking, the summary c will be launched. **Note:** Threshold value can be configured for active and reserve locations.
prompt-pick-to-zero	None|Yes|No	• If set to ‘No’/ blank, pick to zero functionality is not enabled. • If set to ‘Yes’, Pick to Zero functionality is enabled and when inventory in a locati zero post.
task-ordering	NA	Define the description of Task Ordering which is defined in the 'Column Ordering UI'. configured, system orders the task details based on the sequence defined in column detail.
pick-confirmation	OB LPN Position *Null*	• None(blank): the system will not prompt for OBLPN/ Position during picking of i • OBLPN: the system will prompt for OBLPN scan before picking inventory in the p screen. • Position: The system will prompt for scanning position during picking.
allow-multi-alloc-types	Yes No	• No/none: the system will not allow pulling OBLPNs having different allocation ty Cart. • Yes: the system will allow pulling OBLPN having different allocation type on a sir
extra-item-property-disp	• Item External Style • Item Code • Item Alternate Code • Item Part A • Item Facility Description	• If set as None (default)- Item code will be displayed • If set as 'Item Code'- Item code will be displayed • If set as 'Item Alternate Code'- Item Alternate Code will be displayed • If set as 'Item Part A'- Item Part A will be displayed • If set as 'Item External Style'- Item External Style will be displayed • If set as 'Item Facility Description'- Item facility Description will be displayed. o If item facility description is blank, then respective item description will be displa

Parameter	Module Param Choice	Definition
	• Item Short Description • Item Code-Item Facility Description • Item Description2 • Item Description 3 • Season Code	• If set as 'Item Short Description'- Items Short Description will be displayed • If set as 'Item Code-Item Facility Description'- System should display by concate code with item facility description, ○ If item facility description is not populated on item, then system should concate code with item description. • If set as 'Item Description 2'- Item Description 2 will be displayed • If set as 'Item Description 3'- Item Description 3 will be displayed • If set as 'Season Code'- Season Code from Item detail will be displayed ○ **Note**: Item description is an existing field in Pick cart and will be displayed by de
item-barcode-scan	Scan each SKU Prompt SKU	Set the parameter value: • Scan each SKU: scan the item barcode once when picking an item • Prompt SKU: scan the item barcode for every unit being picked
dest-task-zone	N/A	The system prompts for a drop location belonging to the task zone configured at the the picking. When the drop zone specified in the parameter is an induction point, the automatically generates MHE messages.
required-validations	None Expiry Batch All	This parameter performs following validations for scenarios where, if user attempts to an IBLPN (while picking from Reserve Location) instead of the system-allocated/pron • If set to All (Default value): The system will validate both Batch Number and Expi the allocated and substitute inventories. If either doesn't match, the substitution • If set to Expiry: The system will validate only the Expiry Date of the allocated and inventories. If the Expiry Date doesn't match, the substitution will fail; the Batch not be validated. • If set to Batch: The system will validate only the Batch Number of the allocated a substitute inventories. If the Batch Number doesn't match, the substitution will f Expiry Date will not be validated. • If set to None: The system will not validate Batch or Expiry during substitution. S will be allowed even if Batch and Expiry don't match.
task-type-description	N/A	Provides you with option to configure specific task type descriptions for Pick Cart Tas created from the Mobile (default is Pick Cart).
max-OBLPNS-in-cart	N/A	Enter the max upper limit number of OBLPNs for user to scan to the same Pick Cart. When max-OBLPNs-in-cart is NOT configured (Blank/default), the system limits maxi number of OBLPNs pulled on a cart to 9. This limitation was imposed initially to regul number of boxes that the user can carry, with cart having 3 positions in a row with 3 r

Parameter	Module Param Choice	Definition
		When max-OBLPNs-in-cart is configured, the system will limit the maximum number that can be pulled on a cart based on the value defined in the screen parameter. **Note:** If customers wants to customize the cart capacity, we recommend them to e set the max-OBLPNs-in-cart to desired max value. This will override the default lim the OBLPNs on the cart.
UPDATE_INVN_ONSHORT	Yes No	Option to immediately correct location inventory levels for shorted quantity if set to Y
Prompt_rsncode_onshort	Yes No	Option to require users to input a reason code when shorting a pick if set to Yes.

Creating Pick Cart Tasks

You can create pick cart tasks using the following steps:

1. Prior to picking process, scan a pick cart to begin assigning OBLPNs to a Pick Cart task.
2. Upon scanning each OBLPN during picking, the system will assign a Position Number to the cart that helps you in directing a product to the correct OBLPN.
3. Press CTRL+E to close the Pick Cart (or you can scan until you reach the maximum allowed OBLPNs). This will create a Pick Cart task.

   Note: The Task Details will be sequenced by Location Pick Sequence.

Task nbr	Task type	Priority	Cart Number	Status	Next Locn	Create Timestar	Mod Timestamp	Current Locatio	Destination Zon	Nbr of moves
TS00000493	Pick Cart	20	CART1	Ready		02/14/2018 6:...	02/14/2018 6:...		PACK001	0

Executing Pick Cart Tasks

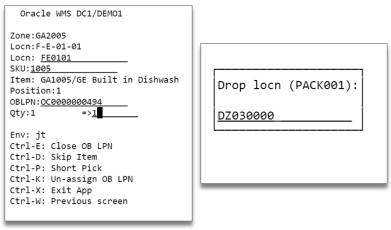
1. Picks are executed on the task based on Location Pick Sequence.

2. You will be prompted for Location, Item, and Quantity based on screen parameters you configure.

   Note: On the LPN/SKU/Quantity scan screen, you can use the “Ctrl-V: View Details” hotkey to view the following allocated inventory details for the scanned SKU.
   - Item Barcode
   - Item Description
   - Quantity to Pick (Allocation UOM)
   - Lot/ Batch Number (if available)
   - Expiry Date (if available)
   - Inventory Attributes (a to o, if available)

   The “Qty to Pick” field displays the remaining allocated quantity to be picked.
   - If a SKU has a single allocation, the details will be displayed directly.
   - If a SKU has multiple allocations for the same LPN with different attributes, expiry, or lot/batch, the system displays separate allocations with a line, omitting common fields to avoid repetition.

3. You can confirm picks by scanning the OBLPN barcode or the Position Number based on screen parameters.
4. After all picks are complete, you can locate the Pick Cart and all OBLPNs to a drop zone location, if necessary.



5. Upon completion, the task Status is updated to Completed.

Displaying Total Quantity in Mobile Pick Cart

The “Show-total-qty-info-for-location-SKU” parameter displays the total units that are picked from a location for your whole cart.

After configuring this parameter, you can save time especially in scenarios where you can pick multiple quantities at a time and distribute them across all the bins in your cart. Knowing the total quantity of items to be picked from a location reduces your movements during picking and this improves your productivity.

Also, knowing the total number of units needed to be placed in the cart improves productivity and speed because the system displays the total units picked and the number of units expected to be placed in each bin.

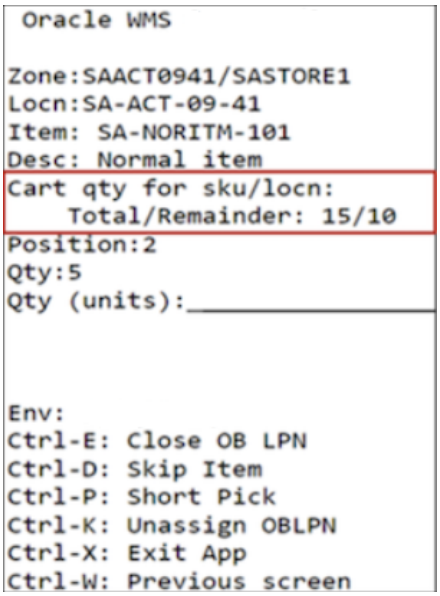
For example:

Let's say, you built a pick cart with multiple containers on your pick cart, and the total to be picked from the location/SKU is 15 units. All 3 orders require 5 units of USB cables.

To enable the **show-total-qty-info-for-location-sku** parameter:

1. Navigate to the Pick Cart Module > Screen Parameter.
2. Select **show-total-qty-info-for-location-sku** > set the parameter choice to **Yes**.
3. Click **Save**.
4. After configuring the parameter, run the RF Pick Cart transaction. The Pick Cart screen displays the total quantity to be picked from the location all at once.

   "Total" indicates the total number of units to be picked from a location and "Remainder" indicates how many units are pending to be placed in the bins on the pick cart. To begin with, both these numbers are the same and you are prompted to place 5 units in Position 1. After you place 5 units in position 1 and confirm, "Remainder" is reduced by 5 units, and you are prompted to place 5 units in Position 2.



5. The transaction continues until you place all of the units in different positions of the cart as directed by the RF screen. That is, you can walk to the location only once to pick the total units and you place the units in different positions as directed by RF Pick Cart.

Increase Productivity using OBLPN Cart Position Ordering

You can increase the productivity by ordering the allocation in logical sequence during the pick cart transaction by utilizing the **OBLPN Cart Position** option from the order by field in the **Column Ordering** UI. This increases productivity as you won't need to move around the cart as frequently while picking.

To enable **OBLPN Cart Position**:

1. Go to Column Ordering UI> select the Column Order Type and go to detail. The Order Selection Criteria screen opens.
2. Create or edit the record and from the Order By drop-down, choose **OBLPN Cart Position**.
3. To order task details in **ascending** order, deselect the Order by Descending Flag.
4. To order task details in **descending** order, select the Order by Descending Flag.

Support Batch, Expiry, and Inventory Attributes During Pick Cart

This functionality makes Pick Cart picking more accurate when the same item exists with different batch, expiry, or inventory attribute values in an LPN or active location. During Pick Cart, WMS can now prompt the user to scan or confirm the specific inventory values before the pick is completed. This helps users pick the correct inventory line, reduce inventory mismatches, and improve traceability for batch-controlled, expiry-controlled, and attribute-tracked items.

You can configure Pick Cart to prompt for batch, expiry, and inventory attributes during picking. WMS uses these prompts to identify the correct inventory line before it shows the quantity prompt.

The enhancement adds and updates these Pick Cart controls:

- **prompt-batch-expiry-attr**: controls when WMS prompts for batch, expiry, and inventory attributes.
- **req-sub-validations**: renamed from required-validations; controls batch and expiry checks during substitution.
- **Case/pack substitution checks**: WMS now validates substituted inventory quantities when the allocation UOM is case or pack.

Before you begin, ensure you have:

- Configured the Pick Cart module rf.outbound.cwrfpickcart.
- item-barcode-scan is set to Scan each SKU or Prompt SKU if you want WMS to prompt for batch, expiry, or attributes.
- The item is configured to track the values you want WMS to prompt for.
- Attributes A to G are prompted only when the item tracks the attribute as required.

If item-barcode-scan is blank, WMS does not use prompt-batch-expiry-attr. Users can still use Ctrl+V: View Details to review allocated inventory.

Configure Pick Cart Prompts

1. Open the Pick Cart screen parameter setup for rf.outbound.cwrfpickcart.
2. Set item-barcode-scan to Scan each SKU or Prompt SKU.
3. Set prompt-batch-expiry-attr to one of these values:
    - Blank: WMS does not prompt for batch, expiry, or attributes.
    - Always Prompt: WMS prompts whenever the item tracks batch, expiry, or attributes.
    - Prompt for Conflicting Values: WMS prompts only when more than one matching inventory line exists and the value is needed to identify the correct line.
4. Review req-sub-validations if users may substitute inventory during Pick Cart.
5. Save the configuration.

Perform Pick Cart with Batch, Expiry, or Attribute Prompts

1. Start the Pick Cart transaction.
2. Scan or enter the item.
3. If configured, scan the requested batch, expiry, or inventory attribute values.
4. Review the quantity prompt. WMS shows the quantity for the selected inventory line.
5. Scan or confirm the quantity.
6. Continue the pick.

When prompting is enabled, WMS does not consolidate all item quantities into one prompt. It splits the pick by inventory line, so the user picks the correct batch, expiry, or attribute combination.

Prompt Behavior

When prompt-batch-expiry-attr is blank, WMS keeps the existing behavior and does not prompt for batch, expiry, or inventory attributes. When it is set to Always Prompt, WMS prompts after item scan in this sequence:

1. Batch or expiry.
2. Inventory attributes A to G.
3. Quantity for the selected inventory line.

If the item tracks both batch and expiry, WMS prompts for batch only because the batch identifies the expiry. When it is set to Prompt for Conflicting Values, WMS prompts only for the values needed to resolve the conflict. WMS first prompts for batch or expiry when those values differ. If the conflict remains, WMS prompts for the required attributes one at a time until it identifies the correct inventory line.

Substitute Inventory During Pick Cart

You may scan an unallocated or unexpected batch, expiry, or attribute value. When that happens, WMS checks whether allocatable inventory exists in the scanned LPN or active location.

If matching allocatable inventory exists, WMS attempts substitution. If the value does not exist, WMS shows an error such as inventory not present for the scanned batch, expiry, or attribute.

WMS always validates required order-level batch or attribute values. If the scanned substitute inventory does not match those required values, substitution fails.

Configure Substitution Validation

Use **req-sub-validations** to control batch and expiry validation during substitution:

- Blank or All: WMS validates both batch and expiry.
- Batch: WMS validates batch only.
- Expiry: WMS validates expiry only.
- None: WMS does not validate batch or expiry.

Inventory attribute substitution is allowed when allocatable inventory exists for the scanned attribute value. It is not controlled by req-sub-validations. Partial substitution is allowed when only part of the requested quantity is available for the scanned value.

Case and Pack Picking

When the allocation UOM is case or pack, WMS validates substitution quantities before it updates the pick.

For LPN substitution and batch, expiry, or attribute substitution, WMS checks that:

- The substitute case or pack quantity is an integral multiple of the original allocated case or pack quantity.
- The substitute case or pack quantity does not exceed the allocated quantity.

For active allocations, WMS applies substitution based on the item's standard case or pack quantity. After a successful substitution, WMS refreshes the mobile screen and shows the updated quantity and case/pack conversion.

Pick and Allocate

The Pick and Allocate transaction can be used in warehouses that support small business operations like stores or medium-sized distribution centers where users with orders visit the stores or distribution Centers. The store operators

pick the inventory manually based on the order. Then they pack and ship the inventory (such as outbound LPNs) to users.

Using the **Pick and Allocate (rf.outbound.cwrfpickandallocateorder)** mobile transaction, you can pick the required items for selected orders.

Click the following video for a demo of the basic flow of Pick and Allocate transactions, how to steps, relevant screens, and recommended guidelines.

Watch video

Pick and Allocate Supports Transfer of Inventory Lock Code to OBLPN

The Returns to Vendor (RTV) allows you to initiate returns for defective or damaged inventories stored at a location. You can return inventories by picking loose inventory or performing a partial pick from a reserve location.

For Reserve Location

When Lock Code is applied to an inventory being picked to an OBLPN during the pick & allocate mobile transaction, the system transfers the associated lock code to the corresponding OBLPN.

For example, let's say your inventory has 5 units (un-allocatable) with lock code (KHRTV). When you pick inventory for an ORDER01, the scanned OBLPN01 will have the lock code (KHRTV) transferred from the picked inventory.

For Active Location

When scanning inventory from the active location during a pick and allocate transaction with an order type configured with a lock code, the system now displays a warning message instead of restricting the pick. The message "**Order type has lock code. Allocating from active location may fail**" allows you to proceed with picking after acknowledgement and is enabled by default.

Note: In case the message is set to a hard error, you cannot accept the message and proceed with picking.

If the Lock code is applied to an inventory is picked during the Pick & allocate mobile transaction, the system transfers the associated lock code to the corresponding OBLPN.

For example, if an inventory has 3 units (un-allocatable) with lock code (AWC34) and when you pick inventory for an ORDER, the scanned OBLPN will have the lock code (AWC34) transfer from Picked inventory.

The system writes IHT 65 Lock OBLPN post Pick & Allocate Mobile Transaction with the lock codes and corresponding ERP bucket. Also, the generated SLS file from ship load contains corresponding inventory lock code populated.

Packing

Packing is a step in the order fulfillment process for getting inventory ready to be shipped to its final destination.

Mobile Pack OBLPN Behavior during LPN Substitution

The Pack OBLPN transaction is used to allocate full LPNs into an OBLPN. This transaction has multiple parameters, for more details - see the Mobile Parameters document.

The Pack OBLPN allows you to do substitution which allows you to replace inventory in the warehouse.

The following table provides the behavior for 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 Pack OBLPN to compare the behavior.
5. LPNs are received through IB Shipment and through 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 Pack OBLPN	Behavior through Pack OBLPN API
blank	blank	RED	**Error** : Sub LPN not an exact match	**Error** : Sub LPN not an exact match
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 transaction that allows you to:

- Pack OBLPNs from “Picked” to “Packed” status
- Combine OBLPNs
- Split OBLPNs

Repack Configuration

1. Go to the “Module” screen.
2. Add the module 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	**When the parameter is set to 'None'**, system will not print the OBLPN packing slip. **When the parameter is set to 'Packing Slip'**, system will print the OBLPN packing slip when a 'To OBLPN' goes to “packed” status.
Print-to-oblpn-label	None|No|Yes	**When the parameter is set to 'No' or none**, system will not prompt for printer to print shipping label. **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.
Restrict-multiorder-comb	None|No|Yes	**When the parameter is set to 'No' or none**, system will allow users to scan To OBLPN having different order. **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”.
Req-lpn-type	None|No|Yes	**When the parameter is set to 'No' or none**, system will not prompt for 'LPN type' for 'To LPN'. **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.
Req-pack-station	Yes None|No|Yes	**When the parameter is set to 'No' or none**, users will not be promoted to scan pack station location. **When the parameter is set to 'Yes'**, users will be prompted to scan the Packing station location.

Parameter name	Value	Description
prompt-lpn-type-on-packed	None|Yes|No	**When the parameter is set to 'No' or none**, system will not prompt for LPN type when 'To LPN' is packed. **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.
print-column-order-descr	Users need to provide a valid rule 'description' as configured on 'Column Ordering UI'	**When not configured**, the system will not consider column ordering rule for label printing **When configured**, the system will print OBLPN labels based on the Label type configured in Column Ordering>>OBLPN Label Type.
extra-info-to-display	None|Order type	**When the parameter is set to none(blank)**, the system will not display any additional info related to Order. **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	**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 **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))
close-oblpn-status	None|Packed|Picked	**When the parameter is set to 'Packed' or none**, then upon Close OBLPN, the system marks the 'To OBLPN' status to 'Packed' **When the parameter is set to 'Picked'**, then upon Close OBLPN, the system will change the 'To OBLPN' status to 'Picked' 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.
cmbne-one-src-to-one-lpn	None|No|Yes	**When the parameter is set to 'No' or none**, the system allows user to pack source LPN into multiple OBLPNs

Parameter name	Value	Description
		When the parameter is set to 'Yes', the system restricts packing source LPN into multiple OBLPNs. This configuration is suggested for scenarios where Repack OBLPN is used for repacking of Non cubed LPNs 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.
manual-end-for-combine	None|No|Yes	**When the parameter is set to 'No'**, the system will end the 'To OBLPN' for any inventory moved from the 'From LPN'. **When the parameter is set to 'Yes' or none**, users will have to end the 'To LPN'
sub-blindlpn-for-cubedlpn	None|No|Yes	**When the parameter is set to 'No' or none**, the system will not allow substituting different OBLPN number against the cubed 'To LPN'. **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. Click "**Save**".
prompt-batch-expiry-attr	always prompt|prompt for conflicting values|Blank	When the parameter is set to **"always prompt"**, the system always prompts to confirm the batch and inventory attribute details. When the parameter is set to **"prompt for conflicting values"**, the system prompts to confirm the batch and inventory attribute details, only when there is a conflict of batch or inventory attributes for the same SKU in the source LPN. When the parameter is set to **Blank**, the system falls back to default repack behavior (no prompt for batch or inventory attributes). For more details on the behavior of "prompt-batch-expiry-attr" parameter, refer to *Prompt for Lots and Inventory Attributes During RF Repack*.

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 Module – Packing

1. Open the **“Repack” (rf.outbound.cwrfrepackoblpn)** module.
2. Depending on which parameters are activated, the mobile displays the following fields:

- **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.

Update OBLPN to Picked Status

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 **“Pack NC Active {order}" (rf.outbound.cwrfpackncactiveorder)** screen.
3. Click **Details.** Select the record and enter it’s details.
4. Modify the “close-oblpn-status” parameter to “Picked”.
5. 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 “Pack NC Active {order} 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.

Note - Containers with Only One Unit Inside

Containers with no LPN type and with only one unit inside will get the dimensions (length, width, and height) from the item, since there is only one unit. However, if there is more than one unit in the container, then we will continue to show zero length, width, and height, since there is no way to know how the units are positioned inside the box.

Ctrl-F Hotkey Behavior

The “Ctrl-F (From LPN Item List)” hotkey in the **Repack OBLPN (rf.outbound.cwrfrepackoblpn)** transaction displays all inventories within the source OBLPN. You can preview the unpicked items before initiating the repack, making planning efficient.

During the **Repack OBLPN** transaction, when you enter the “Ctrl-F - From LPN Item List” hotkey, the system displays the list of unpicked items in the source OBLPN with quantity and UOM (“item code” – “quantity” “UOM”).

Key Notes for Consideration

- After invoking the hotkey, the system displays the list of items (unpicked) present in the OBLPN. If you pick any item during the **Repack OBLPN** transaction, the system doesn’t display the picked item in the item list again.
- The system doesn’t display the items with zero inventory.
- If the same SKU has multiple lines of attributes/batch combination, the system displays the total quantity of the SKU.
- The system displays the UOM based on the item’s Primary UOM.

Pack All SKU Quantities Into an Outbound LPN using Repack Outbound LPN

Using the screen parameter “qty-entry-mode”, you can pack all the inventory for a particular SKU into an outbound LPN in Repack OBLPN.

> **Note:** To honor the UOM, the field “From LPN Units left” is now changed to “From LPN Qty Left” and is applicable for both sku-scan and sku-qty mode.To enter the quantity of the inventory for a particular SKU:
> - Select the option “SKU-Qty” for the parameter “qty-entry-mode”.
> - Now, on the RF Repack Outbound LPN screen, you will be prompted to enter the inventory quantity via the field “Qty (UOM_CODE)”.
>
> Here, you can enter values for quantity equal to or lesser than the expected quantity. If you enter a value for the quantity that is equal to the expected quantity, then, the prompt returns to SKU Scan. However, if you enter a quantity that is lesser than the expected quantity, then, the value of quantity to pack field is reduced and the prompt remains in the quantity prompt screen.

Pack NC Active - Substitution for Allocation UOM for Cases/Packs

Mobile Pack NC Active (rf.outbound.cwrfpackncactiveorder) supports batch substitution when the allocation unit of measure is Cases or Packs. The transaction validates the substitute inventory before updating the allocation, supporting both full and partial substitutions while maintaining quantity and UOM integrity.

This helps pickers continue work when the originally allocated batch is unavailable by allowing controlled substitution of another eligible batch of the same item in the Mobile Pack NC Active flow.

Key Considerations

- - When a substitute batch is scanned, WMS validates that the substitute inventory Case or Pack quantity is an integral multiple of the allocated inventory Case or Pack quantity.
  - WMS validates that the substitute inventory Case or Pack quantity does not exceed the allocated quantity being substituted.
  - **If validation succeeds** - WMS updates the allocation for full or partial substitution and refreshes the mobile screen with the correct quantity and Case or Pack UOM conversion for the new inventory.
  - **If validation fails** - the picker receives an error indicating whether the scanned inventory quantity is not an integral multiple or exceeds the allocated quantity.

Steps to Use

1. Use this capability in the **Mobile Pack NC Active** flow.
2. Ensure item, batch, and Case/Pack UOM conversion data is maintained accurately so substitution validations can be applied correctly.

Prompt for Lots and Inventory Attributes During Repack

During repack operations, items can be picked for multiple orders and moved to a packing station to perform repacking. Since the items are batch and attribute controlled, to avoid inventory mismatch or recall of inventories back to warehouse, you can validate batch and attribute for the **Repack OBLPN (rf.outbound.cwrfrepackoblpn)** transaction. This assures the repacking of an order with the required batch/attribute for an OBLPN.

The **Repack OBLPN** screen parameter *"prompt-batch-expiry-attr"* controls the batch and attribute prompts in the **Repack OBLPN** transaction. If same SKUs are present with different batch/attribute combinations in the source OBLPN, you can scan and select specific batch or attribute tracking inventories.

Based on the *"prompt-batch-expiry-attr"* parameter configuration, after scanning a SKU and hitting either Tab or Enter, the system prompts for batch or inventory attributes.

The following examples explain the batch and inventory attribute prompts behavior.

Example 1:

If the screen parameter "*prompt-batch-expiry-attr*" = "always prompt" and the item has inventory attributes.

OBLPN Inventory Details			**Behavior**
Item	**Attribute-A**	**Attribute-B**	The system prompts for Attribute-A and Attribute-B.
SKU-A	ABC	123	

Example 2:

If the screen parameter "*prompt-batch-expiry-attr*" = "always prompt" and the item has batch and inventory attributes.

OBLPN Inventory Details				**Behavior**
Item	**Batch Number**	**Attribute-A**	**Attribu B**	The system prompts for Batch Number, Attrib A, and Attribute-B.
SKU-B	BATCH-01	ABC	123	

Example 3:

If the screen parameter "*prompt-batch-expiry-attr*" = "prompt for conflicting values" and the item has multiple details with batch and inventory attributes.

OBLPN Inventory Details					Behavior
Item	**Batch Number**	**Expiry**	**Attribute-A**	**Attribute-B**	The system prompts only for Batc number is different and inventory on the selected batch detail. If the batch number is same, then for attributes.
SKU-C	BATCH02	06/06/2024	ABC	DEF	
SKU-C	BATCH03	07/06/2024	456	123	

During the **Repack OBLPN** transaction:

- If you scan an inventory attribute or batch that is not available in the source OBLPN, the system displays the following error messages.
  - Inventory not present for Attribute %X%: %Attribute%
  - Inventory not present for Batch Nbr: %Attribute%
- If you scan batches or inventory attributes more than the picked quantity, the system throws an error “Only %qty% units available for packing”.

Using the Repack Module – Combine/Split

You can use the Repack 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 the screen parameter button > Select **combine-one-source-to-one-lpn**
3. Click **Edit** and choose **yes**.
4. Click **Save**.
5. Launch the mobile Repack OBLPN transaction and scan the LPN to remove units from “From LPN”.
6. Scan the Item you are moving.
7. 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.

8. When all of the desired items have been moved, press Ctrl-E to end the “To LPN”.

On launching the 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 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.

> **Note:** You can control which inventory items can be repacked together using the screen parameter “packing-restriction-rule”. For more details, refer to the Mobile Screen Parameters file (*Oracle WMS Cloud Information Center* > **Documentation** tab > click the link under **Current Documentation** > refer to the **Mobile Screen Parameters Quick Reference** document).

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 Mobile Pack NC active transaction (rf.outbound.cwrfpackncactiveorder) 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 parameter ‘break-picks-by-order-count’ and set with an integer value in the Pack NC Active {order} (rf.outbound.cwrfpackncactiveorder) 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.

To alert the picker, while performing **Pack NC Active {order} (rf.outbound.cwrfpackncactiveorder)** transaction,

- For "nc-or-cubed-mode" = Blank or "Non-Cubed Picking", if you scan a sales order that is dependent on replenishment, the system displays a warning message "Available quantity is insufficient to fulfill order. Do you want to proceed?".
- For "nc-or-cubed-mode" = "Cubed Picking", if you scan an OBLPN that is dependent on replenishment, the system displays a warning message "Available Qty to Pick is insufficient for %OBLPN. Do you want to proceed?".

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.

Allocate Inventory with/without Lock Codes on an Order using Pick and Allocate

You can allocate inventory by handling the transfer of locked as well as unlocked LPNs to different facilities. This is achieved by configuring the screen parameter**order_type_lock_code_match_behavior** for the **Pick and Allocate** transaction.

To enable allocation and shipping of inventory of LPNs with/without Lock Code(s) listed on the Order Type field **Eligible Lock Codes for Allocation** do the following:

1. Go to **Modules** > **Pick and Allocate (rf.outbound.cwrfpickandallocateorder)**.
2. Click **Screen Parameters** > **order-type-lock-code-match-behaviour**.
3. Enable the **unlocked-or-eligible-locked-inventory** parameter option.

Allocate Inventory with Lock Codes on an Order using Direct Allocation

You can allocate inventory by handling the transfer of locked as well as unlocked LPNs to different facilities. This is achieved by configuring the screen parameter **order_type_lock_code_match_behavior** for the **Direct Allocation** transaction.

To enable allocation and shipping of inventory of LPNs with/without Lock Code(s) listed on the Order Type field **Eligible Lock Codes for Allocation**, do the following:

1. Go to **Modules** > **Direct Allocation (rf.outbound.cwrfdirectallocation)**.
2. Click **Screen Parameters** > **order-type-lock-code-match-behaviour**.
3. Enable the **unlocked-or-eligible-locked-inventory** parameter option.

Direct Allocation for Pallets

The Mobile Direct Allocation transaction can also handle Pallets where you can allocate, pack, and ship pallets. This transaction enables faster and more efficient order fulfillment by reducing the need to break open the pallet.

You can use Direct Allocation (rf.outbound.cwrfdirectallocation) and API transactions for a streamlined and advanced order fulfillment process for customers.

Other pallet level operations supported via Direct allocation, through the following existing parameters:

1. Go to Direct Allocation Module > Screen Parameter and set the following parameters:
    - Auto-load to Yes – This will load an entire Pallet without de-palletizing.
    - Reuse-LPN to No – This will generate OBLPN number.
    - Define the post-pack-task-type and dest-task-zone for post packing updates on a Pallet.
2. For Load assignment and Manifesting logic for Pallets – When a pallet is packed through Direct allocation, the system processes the Pallet for Load Assignment/Assignment to Manifest logic, depending on the following configurations:
    - Go to Facility Parameter UI > Set the parameter ASSIGN_LOAD_WHEN_PACKED and ASSIGN_LOAD_WHEN_CREATED to Yes – This ensures that the Pallets are assigned to the Load.
    - Go to Company Parameter UI > Set the parameter PACKING_ROUTING_MODE to Yes and ShipVia on Order – This ensures that the Pallet is assigned to Manifest.
    - Go to the Direct Allocation Module:
        - Auto-load configuration to:
            - "Yes": Loads entire pallet without de-palletizing the LPNs
            - "No": Does not auto-load
        - If Post-pack task type is configured: The system checks if load assignment/manifesting is configured in post-packing program of the task type description and will perform operations after the post packing updates are done for the Pallet.

    Note: The system displays a warning, if any LPN on the pallet fails to be assigned to load or manifest
3. On scanning the order, the Direct Allocation Mobile transaction prompts both "Pallet/LPN".

4. On scanning a Pallet, the system performs the necessary validations against the Pallet, and after passing these validations, the system will directly allocate and pack the Pallet against the order.

> **Note:** The system doesn't allow partial allocation of a Pallet. You can continue to scan the LPN that is linked to a Pallet, where existing behaviour of the system of depalletizing and processing the LPN will be retained.

You can also perform direct allocation via calling the following API request:

Request URL

```
POST ...wms/lgfapi/v10/entity/pallet/direct_allocation/
```

For more information on the API's parameter and payload, refer to REST API Guide.

Real-Time Order Progress Indicators

On the **Direct Allocation** - Order and LPN scan screen, the system displays four real-time statistics fields to help users track order requirements and progress directly during scanning:

- Order Status (default shown as Created; updates after an order is scanned)
- Number of SKUs (total unique SKUs on the order)
- Allocated Quantity (UOM) displayed as X/Y (allocated/picked vs. total order quantity)
- Packed OBLPNs/Pallets (count of successfully packed outbound LPNs or pallets)

Order and LPN Scan Screen

After each successful LPN/pallet scan and pack, the next scan page automatically refreshes and the statistics update immediately.

Next Scan Page

When the user closes an order (or the system completes the order), the fields reset to default/blank when returning to the next order scan.

Improved Order Completion Guidance

When an order becomes fully allocated/packed, the mobile flow now clearly informs the user instead of continuing to prompt for additional LPN/pallet scans.

The system displays an informational message such as "Order Allocation is Completed." The message triggers only after all relevant completion steps finish (as configured), including:

- label printing confirmation (print-label configuration)
- drop location scan (prompt-drop configuration)
- post-packing processing (post-pack-task-type-desc configuration)

> **Note:** This option is enabled by default, with the option to disable via the Message UI.

After acknowledgement, the system returns to the order prompt screen, clears the previous order number, and places the cursor on the order scan field

Order Scan Validation Messages

We've added more detailed scan validation messages. For example:

- If the order exists but is not in an allowable status (e.g., not Created or Partly Allocated), the user sees "Order in invalid status." (Message 117)
- "Order not found" / "Order does not exist" is shown only when the order truly does not exist for the logged-in facility and company (e.g., Message 115)

LPN/Pallet Validation and Corrected Error Messages

The LPN/pallet scan validation logic validates in the correct sequence to display accurate guidance:

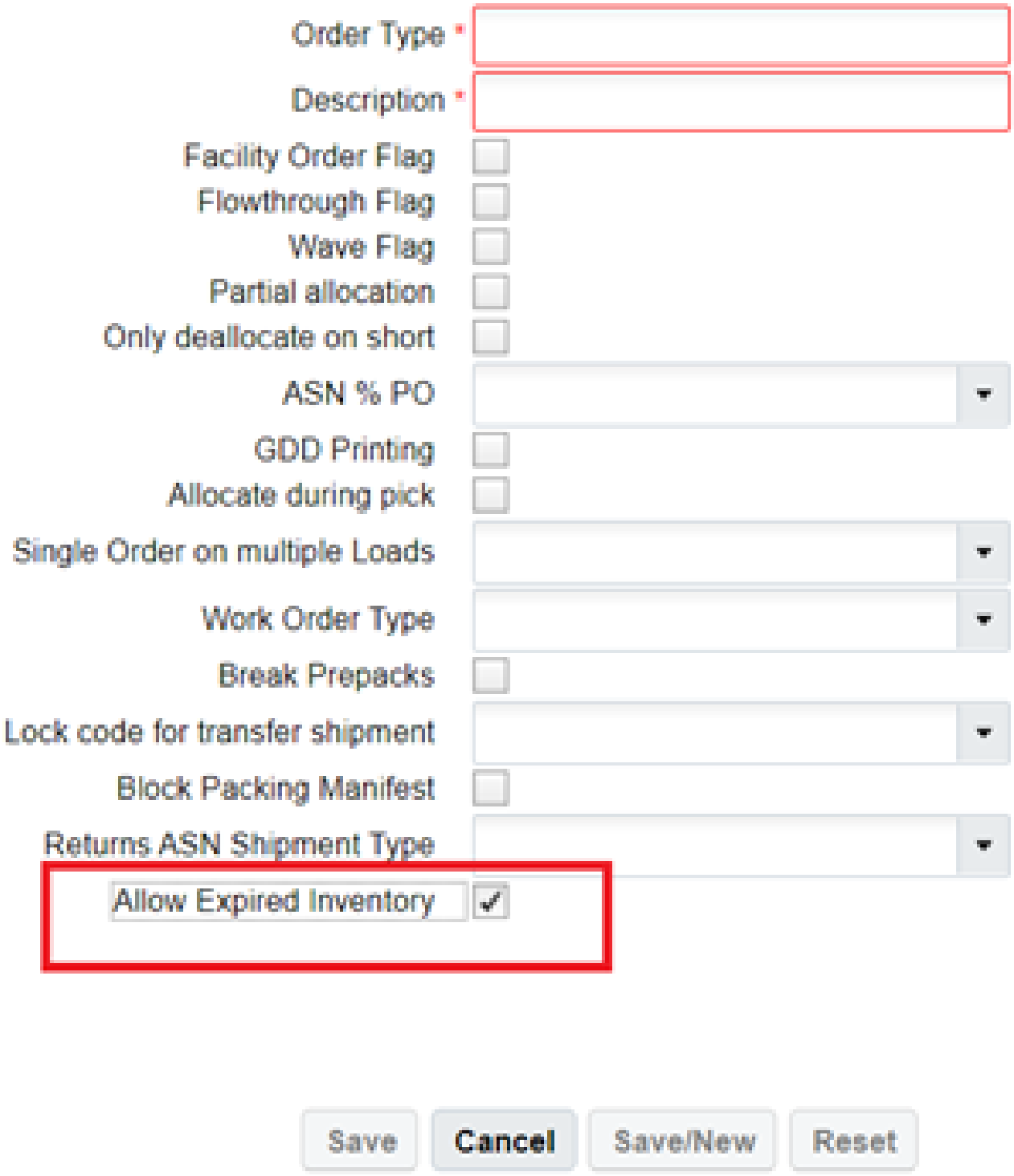
- Scanning an OBLPN when an IBLPN is expected now shows "Invalid LPN type" (Message 47) instead of "Container not found"
- Scanning a Pallet Type O when Pallet Type I is expected now shows "Invalid pallet type" (Message 1929)
- Scanning an existing IBLPN/pallet in an invalid status now returns clear status-specific errors:
  - "LPN is in invalid status" (Message 4762)
  - "Pallet is in invalid status" (Message 4761)

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. Launch the mobile **Repack** transaction
2. Scan the SKU
3. Scan “From LPN” and item.
    - 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.

Ship OBLPN Action Type

OBLPN Putaway actions such as locating, loading, and staging OBLPNs, support efficient inventory management after packing. These actions allow you to direct the OBLPNs to drop or staging locations, or directly load the OBLPNs, based on the configuration.

The action type “Ship OBLPN” on the **OBLPN Putaway Type Action View (OblpnPATypeActionView)** UI, enables you to ship OBLPNs directly to a specified shipping location as part of the OBLPN putaway workflow, reducing the need for separate shipping transactions.

By configuring “Ship OBLPN”, you can specify a shipping location to ship OBLPNs, eliminating confusion and manual workarounds. Whether dispatching individual orders, consolidating for bulk shipments, or routing for further processing, you can ship OBLPNs efficiently using the **Ship OBLPN to Ship Location (rf.outbound.cwrfshipoblpn)** mobile transaction.

To configure a shipping location to ship OBLPNs on the **OBLPN Putaway Type Action View (OblpnPATypeActionView)** UI, do the following:

1. Click Create.
2. Select a **Putaway Type**.
3. From the **OBLPN Putaway Action Type** drop-down list, select “Ship OBLPN”.

4. Configure the shipping destination using one of the following options:
    - In the **Destination Location Barcode** field, enter a shipping location.
    - If the shipping location is passed in the **Order Header (OrderHdrView)** or **OBLPNs (ObContainerView)** UI Custom Fields, from the **Fetch Destination Location From** drop-down list, select relevant custom field.

    Note:
    - You can configure only one of the above configurations.
    - If the entered location barcode is invalid or non-shipping location, the system displays an error message.
    - If the selected custom field does not have a configured location, you can scan any available shipping location during the transaction.
    - If an OBLPN has multiple orders with different locations specified in custom fields, the system displays a warning message. After accepting the warning, you can proceed to scan any available shipping location.

5. From the **OBLPN Putaway Type Action Screen** drop-down list, select the **Ship OBLPN to Ship Location (rf.outbound.cwrfshipoblpn)** mobile transaction screen.

    Note: If you fail to configure the screen, the system displays an error message.

6. Click **Save**.

After configuring the shipping location and screen for the “Ship OBLPN” action, the system navigates you to the **Ship Oblpn to Ship Location** mobile transaction from the **OBLPN Putaway (rf.outbound.cwrfputawayoblpn)** mobile transaction and guides you to the configured shipping location. You can then scan the location and ship OBLPNs to it.

ERROR HANDLING FOR OBLPNS ON LOAD

In the scenarios where you want to reroute an OBLPN directly to a shipping location even if it is loaded, the system allows shipping of OBLPNs that are already assigned to a load.

When you scan an OBLPN (that is already assigned to a load) in the **Ship OBLPN to Ship Location** mobile transaction, the system displays a warning message. On accepting the warning message, the system delinks the OBLPN from its assigned load and prompts for a shipping location.

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, IBLPNs OBLPNs etc, as they would be done after a physical pick and pack using the

mobile device. The physical pick and pack would occur later, as per the convenience of warehouse floor users without using WMS UI or the mobile device.

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 **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 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*.

Update Order Quantity on Partially Allocated Order Details

You can reduce the order quantity by the unallocated quantity of the order detail. When running a wave, the order detail is partially allocated, and the system updates the order detail quantity equal to the allocated quantity against the respective order.

1. From the **Wave Template** UI, select the Wave Template.

2. Click **Edit** icon.
3. Enable the **Cancel Partially Unallocated Flag** to cancel the un-allocated portions of the order detail quantity.

   The following table shows the behavior of the Cancel Partially Unallocated flag when set to Yes/No:

Cancel Fully Unallocated Flag	Cancel Partially Unallocated Flag	Order Detail is not allocated (Allocated qty =0)	Order Detail is partially alloc
Yes	Yes	Cancel the respective order detail	Update the order detail quant for the respective order detail
Yes	No	Cancel the respective order detail	Don't update the Order Detail
No	Yes	Don't Update the Order Detail Quantity	Update the order detail quant quantity for the respective ord
No	No	Don't Update the Order Detail Quantity	Don't update the Order Detail

   Note: When the "Cancel Partially Unallocated" flag is set to yes, after the order detail quantity is reduced, the system will write the Inventory History Transaction (IHT) "12 - Order Detail Shorted".

4. Click **Save**.

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 behavior, 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 behavior based on the Column Ordering Rule selected:

Column Ordering Rule Drop-down	Document Printer Drop-down	Behavior
Selected Column Ordering Rule is OBLPN Packing Slip	Selected	• 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	• 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 MUST select either a Label Printer or a Document Printer for labels or documents to be printed. When selecting the document printer, be sure to define the document types (OBLPN Packing Slip and/or Task report) in the Column Ordering Rule, to be printed. Otherwise, the Order Packing Slip will be printed as per the existing behavior. 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.

Note: Mail for document printers is not supported. You can print to a label printer via email. For documents you need to print to use a physical printer.

Mobile Transactions Supporting Column Ordering/Printing Labels

The following RF Transactions support Column Ordering. For these RF transactions, if you set the **print-column-order-descr** parameter to yes, the system prints the associated labels and documents tied with the column ordering rule in the sequence configured.

- Print Ship Label (rf.outbound.cwrfprintshiplbl)
- Pack OBLPN (rf.outbound.cwrfpacklpn)
- Post Packing and Handling (rf.outbound.cwrfpostpackinglpnhandling)
- Pack OBLPN from IBLPN (cwrfpackoblpfromiblpn)
- Repack OBLPN (rf.outbound.cwrfrepackoblpn)

Print Packing Slips on the Orders and OBLPNs UIs

A packing slip is a document that provides information about items that are part of orders or OBLPNs. The process of printing packing slips involves either downloading a PDF and then, manually initiating the print or sending these packing slips directly to printers.

You can print these packing slips via **Orders** and **OBLPNs** UIs. The screen parameter “generate-packing-slip-mode” controls the packing slip printing behavior.

The following table briefs the behavior of “generate-packing-slip-mode” screen parameter:

Screen Parameter Value	Behavior
Blank or Download	When you click the “Packing List” or “Packing Slip” action button, the system creates a PDF file and downloads the same. (Default behavior)
Print	When you click the “Packing List” or “Packing Slip” action button, the system prompts for a document printer. On selecting a printer, the system prints the packing slip/packing list.

Print Packing Slips on the Order Header UI

To print packing slips, follow these steps:

1. Go to **Orders (OrderHdrView)** UI.

2. Select a record and click the **Packing Slip** action button.

   If the screen parameter “generate-packing-slip-mode” is set to Blank or “Download”, the system creates a PDF file and downloads the same.

   If the screen parameter “generate-packing-slip-mode” is set to “Print”:

   a. On the “Print Packing Slip” pop-up, select a printer from the drop-down list.
   b. Click **Submit**.

      The system initiates a physical print or sends a mail, based on the printer configuration.

Print Packing Slips on the OBLPNs UI

To print packing slips, follow these steps:

1. Go to **OBLPNs (ObContainerView)** UI.
2. Select a record and click the **Packing List** action button.

   If the screen parameter “generate-packing-slip-mode” is set to Blank or “Download”, the system creates a PDF file and downloads the same.

   If the screen parameter “generate-packing-slip-mode” is set to “Print”:

   a. On the “Print Packing List” pop-up, select a printer from the drop-down list.
   b. Click **Submit**.

      The system initiates a physical print or sends a mail, based on the printer configuration.

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 Functionality* .

Outbound Sorting

UI Configuration

All Outbound Sorting configurations are made through these screens:

- **Outbound Sort Zone Header**
- **Outbound Sort Zone Detail**

The Sorting feature is managed by **Sort Zones**. A Sort Zone is a group of outbound drop or staging locations that use the same sorting criteria. Each Sort Zone is defined for a facility.

To set up Outbound Sorting:

1. Create a Sort Zone record on the **Outbound Sort Zone Header**screen.
2. Enter a name for the Sort Zone and choose the outbound sorting criterion by which OBLPNs are sorted.

The outbound sorting criterion is resolved from completed allocation data for the scanned OBLPN. The selected criterion should return one clear value for the OBLPN. If the OBLPN returns no value or more than one value, RF sorting cannot determine a unique destination.

Sort Zone Details

Select the newly created Sort Zone record and open its details. The details screen displays the sort locations configured for the zone, the active pallet if one is assigned, and the criteria value currently assigned to that location.

Column	Description
Location	Physical outbound sort location, drop location, staging slot, or lane configured for the Sort Zone.
Pallet	The active pallet currently assigned to the sort location. This is populated by RF when users sort to a pallet.
Criteria Value	The outbound sorting value currently assigned to that location, such as route, destination, order type, ship-to, or another configured outbound criterion.

- If the location has no Criteria Value, it is available for the next scanned OBLPN whose criterion does not already have an assigned location.
- When the first OBLPN for a criterion is sorted to an available location, WMS stores that criterion value on the Sort Zone Detail.
- If the RF flow sorts to pallets, WMS also stores the active pallet on the Sort Zone Detail.
- When another OBLPN with the same criterion is scanned, WMS directs the user to the same sort location and, if applicable, the same pallet.

- Criteria values should be cleared after the freight leaves the sort area so the location can be reused for a different criterion.

RF Configuration

The primary RF transaction for outbound sorting is RF Outbound OB Sort LPN**(rf.outbound.cwrfobsortlpn)**. The RF module starts with the OBLPN scan and then sends the user either to a sort-to-pallet flow or a direct sort-to-location flow.

Parameter	Default	Description
sort-to-pallet	yes	Controls whether the RF user sorts t at the sort location. Set to no to sort without scanning a pallet.
default-sort-zone	blank	When populated, RF uses this sort z and does not ask the user to scan th transaction.
allow-picked-status-only	no	When no, RF expects PACKED outbo RF allows only PICKED outbound LI

Using The Sorting Mobile Module

These are the steps to use the Outbound Sort LPN mobile module:

1. Enter the Outbound Sort LPN RF module.

2. Scan the OBLPN in the LPN field.

3. Scan the Sort Zone, unless the module is configured with a default sort zone.

4. WMS validates the OBLPN and determines the outbound sorting criterion from completed allocation data.

5. If there is already an active location for the criterion, RF displays the destination location. If a pallet is active, RF also displays the pallet to scan.

6. If there is no active location for the criterion, the user scans an available sort location in the zone.

7. If sort-to-pallet is enabled, scan the pallet to use at that location.

8. WMS updates the OBLPN to the sort destination and updates the Sort Zone Detail with the criterion and pallet information.

Sort To Pallet Flow

Use this flow when sorted OBLPNs should be grouped onto pallets before downstream staging, loading, or shipping.

- The user scans the OBLPN.
- WMS finds the criterion value for the OBLPN.
- If a matching sort location and pallet already exist, RF directs the user to that location and pallet.
- If no matching location exists, the user selects an available sort location and scans a pallet.
- WMS assigns the OBLPN to the pallet and records movement history.

- When the pallet is complete, the user presses Ctrl-E Close Pallet and scans the pallet to close it.

Sort To Location Flow

Use this flow when OBLPNs should be placed directly into outbound sort or staging locations without palletizing.

- Set sort-to-pallet to no.
- The user scans the OBLPN and sort zone, unless the zone is defaulted.
- WMS displays the matching location if one already exists for the criterion.
- The user scans the location to confirm placement.
- WMS updates the OBLPN location and records movement history.

Example

A warehouse wants to sort packed outbound LPNs by route before loading. The implementer creates Sort Zone OBS_ROUTE and selects Route Number as the outbound sorting criterion. Three drop locations are added to the zone: DROP-R01, DROP-R02, and DROP-R03. The RF module is configured with sort-to-pallet = yes and default-sort-zone = OBS_ROUTE.

Scan	System Result
OBLPN100001	WMS derives route ROUTE-ATL. No active location exists. User scans DROP-R01 and pallet PALLET-ATL-001.
OBLPN100018	WMS derives route ROUTE-ATL. RF directs user to DROP-R01 and pallet PALLET-ATL-001.
OBLPN100044	WMS derives route ROUTE-DAL. No active location exists. User scans DROP-R02 and pallet PALLET-DAL-001.

Common Errors And Corrective Actions

Condition	Explanation	Corrective Action
Container invalid for sorting	The OBLPN does not have the status expected by the RF parameter.	Use the correct transaction setup or the correct status.
Sort zone invalid	The scanned or defaulted sort zone does not exist for the facility.	Correct the sort zone setup or RF de parameter.
No sort location available	No available blank Sort Zone Detail exists for a new criterion value.	Add more sort locations or clear sta completed lanes.
Criteria value missing	The selected outbound criterion cannot be resolved from the OBLPN's completed allocation data.	Review the chosen criterion and the allocation data.
Multiple criteria values found	The OBLPN resolves to more than one value for the selected criterion.	Use a different criterion or avoid mi allocations in the same OBLPN.
Location not valid for zone	The scanned location is not configured as a detail for the selected sort zone.	Scan a valid location or add the loca
Sorting pallet does not match	The location is already tied to a different active pallet or criterion.	Scan the displayed pallet, close the stale sort-zone detail data.

Implementation Notes

- Choose a criterion that produces one value per OBLPN.
- Create enough sort locations for the number of concurrent routes, destinations, stores, or other criterion values expected during peak operations.
- Use default-sort-zone for dedicated physical sort areas to reduce scan effort.
- Use separate RF menu entries if picked-status sorting and packed-status sorting are both required.
- Clear completed or stale sort location assignments regularly so sort locations can be reused.
- Train users to close pallets before moving them out of the sort location.

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 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. **"1 of Y"** in the **OB Audit Rules** header is the audit sampling frequency for the rule.

For Example:

- `1 of Y = 1`: every matching OBLPN is audited.
- `1 of Y = 5`: every 5th matching OBLPN is audited.
- `1 of Y = 10`: every 10th matching OBLPN is audited.

Note:

- The rule only applies if `enabled_flg=True`.
- Rules are evaluated by priority, and once the first matching rule is found, WMS stops checking further rules.
- The "Y" counter is maintained per audit rule in `oblpn_counter`.

So, functionally, read the "1 of Y" column as **audit one matching outbound LPN out of every Y matching LPNs**.

If **Y = 5**, interpret it as:

Audit 1 matching OBLPN out of every 5 matching OBLPNs for that rule.

So the **5th, 10th, 15th, 20th...** matching OBLPN for that rule will be marked for audit. It is **a not random 20% sampling**. It is deterministic “every 5th matching OBLPN” based on that rule’s counter.

In the table below, Facility F002 has 1 of 10 audit 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.

Global Audit Settings

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 Settings** for facilities:

Global Audit Settings

Facility	Audit if Shorted
F002	Yes
F003	No

From the **Outbound Audit Rules** screen, click the **Change Global Audit Settings** 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 Outbound Audit module allows you to execute detailed audits for OBLPNs or Pallets. The 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 following choices:

- Simulated with Pending Audit
- Simulated without Pending Audit

Outbound Audit Screen

The 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 Outbound Audit, but you cannot increase quantity in an OBLPN.

SKU Prompt Screen

After you scan the LPN, you are prompted to add the SKU.

When the allocation is done in terms of cases, the following is an example of the Outbound Audit Cases prompt screen:

The 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.

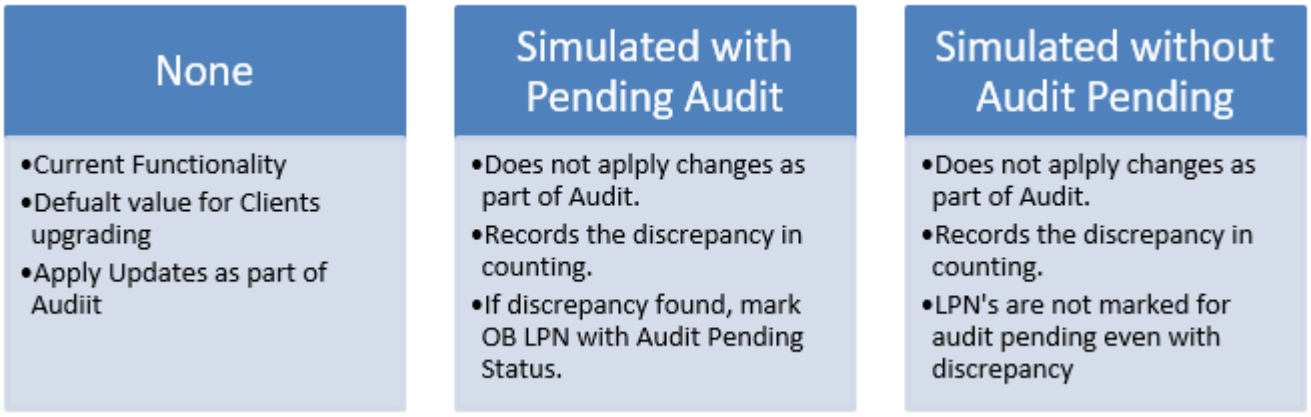
Whether the Simulated Audit Mode is configured for Normal Mode or Simulated Mode, the following updates apply:

- 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 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:



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

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.

You can configure the system to trigger serial number verification only when the quantity is mismatched by using the screen parameter “verify-serialnbrs-on-qty-mismatch-only”.

This parameter ensures that serial number verification can be skipped to save time and streamline operations when the physical count matches the expected quantity.

The table summarizes the behavior of the screen parameter “verify-serialnbrs-on-qty-mismatch-only”:

Parameter Value	Behavior
Yes	The system prompts for serial numbers only when: • The entered quantity differs from the expected quantity for the scanned SKU.

	• The entered quantity matches the expected quantity for the scanned SKU, but the number of serial numbers associated with the SKU does not align with the quantity.
No (default behavior)	The system always prompts serial numbers, irrespective of any quantity mismatch. **Note:** If you end the audit without SKU scan, the system bypasses the serial number prompt.

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”

Batch Numbers/Expiry Dates/Inventory Attributes Tracking

The **Outbound Audit** transaction prompts you to scan items or SKUs that track batch, expiry, or inventory attributes which is controlled by the the screen parameter “confirm_attributes_of _inventory”.

The table summarizes the behavior associated with the screen parameter “confirm_attributes_of _inventory”:

Parameter Value	Behavior
Yes	Irrespective of conflicts, the system prompts for batch numbers, expiry dates, or inventory attributes when the scanned SKU is set to track batch, expiry, or inventory attributes. **Note:** Auto-populating of attributes from multi-field barcodes is currently unsupported.
No (default behavior)	The system does not prompt for batch numbers, expiry dates, or inventory attributes.

Screen Parameter column-ordering-rule Behavior

When performing an OBLPN Audit, if you encounter a situation where the audited inventory is less than anticipated, the system decreases the varied quantity from the assigned orders. You can control the deallocation sequence using the screen parameter “column-ordering-rule”.

To set the deallocation sequence, do the following configurations:

- Enter a column ordering rule in the screen parameter “column-ordering-rule” value.
- On the **Column Ordering** screen, you must configure the same column ordering rule.

Note:

- If you enable the flag “Order by Descending Flag”, the system sequences the orders in the descending order based on the configured criteria.
- If you disable the flag “Order by Descending Flag”, the system sequences the orders in the ascending order based on the configured criteria.

Example:

Consider an OBLPN “OBLPN01” has the following allocations.

OBLPN	SKU	Quantity	Order Number	Order Priority	Order Create TS
OBLPN01	ABC	10	ORDER001	1	6th January
OBLPN01	ABC	10	ORDER002	2	6th January

In this case, the screen parameter “column-ordering-rule” is set to “RKRULE01” that has the following configuration:

Column Ordering Rule Name	Order By Field	Sequence Number	Order by Descending Flag
RKRULE01	Order priority	1	Yes
RKRULE01	Order Create Ts	2	Yes

Now, let's assume you have performed the OBLPN Audit of “OBLPN01” for a single inventory “ABC”, which is associated with two different orders (ORDER001 and ORDER002). If you enter a lesser quantity (15), the system needs to deallocate 5 units. Based on the Column Ordering Rule configuration, the system selects ORDER002 for deallocation due to its order priority “2”.

Apply Lock Code For Inventory Discrepancy

As an Auditor, applying lock codes to Outbound LPNs during an OBLPN Audit is essential, especially when discrepancies arise, such as quantity mismatches, unexpected SKUs, or damaged LPNs. By utilizing lock codes, you can prevent these issues from slipping through the cracks and ensure that OBLPNs with discrepancies are not accidentally loaded or shipped.

The screen parameter “ **prompt--lockcode-for-invn-discrepancy**" controls whether the

system prompts for a lock code during the OBLPN Audit when discrepancies are identified.
The table outlines the behavior of the screen parameter “prompt-lockcode-for-invn-discrepancy”:

Parameter Value	Behavior
Yes	The system prompts a lock code if any discrepancy is encountered during the physical audit.
No (default behavior)	The system does not prompt a lock code.

During the **Outbound Audit** transaction, you can invoke the hotkey “Ctrl-L: Apply Lock” to associate a lock code to the scanned OBLPN. This enables you to apply lock code like Damaged if LPN being audited is Damaged.

Additionally, after completing the audit with “Ctrl-E: End Audit”, the system prompts for a lock code if there are any inventory discrepancies.

If you want to prevent shipping or manifesting on the OBLPN due to discrepancies, apply a lock code that is disabled with the following flags:

- Allow Loading
- Allow Manifesting

> **Note:** The system doesn’t prompt a lock code if audit is performed in simulated mode.

Apply Default Lock Code for an Outbound LPN Audit

WMS supports a default lock code for inventory discrepancies in the Outbound Audit OBLPN transaction. You can use this setup to automatically apply a lock code to an OBLPN when WMS finds extra or unexpected inventory during a non-simulated Outbound Audit. This helps prevent discrepant OBLPNs from being loaded or shipped before review.

Before you begin, ensure:

- A valid lock code configured for the facility and company.
- Access to configure screen parameters for **rf.outbound.cwrfauditlpnplt**
- Access to the Message UI if you want to control warning messages.
- An Outbound Audit flow that runs in non-simulated mode.

To apply default lock code, do the following:

- Configure the screen parameter **default-lockcode-for-invn-discrepancy** in **rf.outbound.cwrfauditlpnplt**.

- . When a qualifying positive inventory discrepancy is found, WMS applies the configured lock code automatically.
  - Enter the lock code that WMS should apply when it finds a positive inventory discrepancy.
  - If you leave this parameter blank, WMS follows the existing **prompt-lockcode-for-invn-discrepancy** behavior.

Review the Lock Prompt Setting

- In the same screen parameter setup, find `prompt-lockcode-for-invn-discrepancy`.
- Set the value based on your process:
  - `Yes`: WMS prompts the user to select a lock code if no default lock code is configured.
  - `No` or blank: WMS does not prompt for a lock code if no default lock code is configured.

- Save the configuration.

  If **default-lockcode-for-invn-discrepancy** has a valid value, WMS uses it first and does not show the lock code prompt.

Configure Outbound Audit Warning Messages

You can configure WMS Outbound Audit warning messages in the Outbound Audit flow. These messages are clearer and follow the enable or disable settings in Message Configuration.

1. Open the Message UI.
2. Search for the Outbound Audit discrepancy warning messages.
3. Enable or disable the messages based on your business process.
4. Save your changes.

Outbound Audit Warning Messages

Audit OBLPN Scenario	Warning Messages	Previous Behaviour	Improvements Made
After scanning an unanticipated Batch/Expiry/Attribute value.	“Scanned SKU/inventory combination does not exist, record discrepancy ?”	Even if this message is disabled, the system still displays it in the screen flow.	Now, warning messages for unexpected item, quantity, batch, expiry, or inventory attribute discrepancies can be enabled or disabled based on business needs.
After scanning: An extra quantity for an anticipated Batch/Expiry/ Attribute inventory, or a quantity for an unanticipated Batch/Expiry/ Attribute inventory.	Mismatch in %s for %s and inventory batch/Expiry/Attribute combination. Proceed further?	Even if this message is disabled, the system still displays it in the screen flow.	Now, warning messages for an anticipated Batch/Expiry/Attribute inventory, attribute discrepancies can be enabled or disabled based on business needs.
After scanning SKU/SKU-Qty for an unanticipated SKU.	Item does not exist in LPN %s %s. Record discrepancy?	Even if this message is disabled, the system still displays it in the screen flow.	You can now enable/disable this warning message based on business needs. The item discrepancy message is reworded as following to clearly show the item and LPN. "Item %s does not exist in LPN %s. Record discrepancy?", where the first %s is the SKU and the second %s is the LPN# .
After scanning extra quantity for normal inventory.	Mismatch in Qty for SKUs %s. Proceed further?	This is hard-coded.	A previously hard-coded quantity mismatch warning is now configurable and enabled, by default.
If discrepancies are found for any anticipated or unanticipated SKU, and upon accepting End Audit.	Mismatch in %s for %s and inventory batch/expiry/attribute combination. Do you want to adjust LPN?	This message is displayed in both simultaneous and non-simultaneous mode. This message is displayed even if the audit does not result in an LPN inventory update.	The discrepancy message is now reworded as follows to use clearer action text. "Mismatch in %s for %s and inventory batch/expiry/ attribute combination. Proceed?" You can now enable/disable this warning message only based on business needs.

Perform the OBLPN Audit

1. Open the Outbound Audit OBLPN transaction.
2. Scan the OBLPN.
3. Scan and count the items in the OBLPN.
4. Record any discrepancies during the audit.
5. End the audit. WMS checks whether the audit includes a positive inventory discrepancy.

If a valid default lock code is configured, WMS automatically applies the lock code to the OBLPN. WMS applies the lock when the audit finds:

- Extra quantity for an expected item.
- An unexpected item in the OBLPN.
- An expected item with unexpected batch, expiry, or inventory attribute values.

If the configured default lock code is invalid, WMS shows a message and asks the user to select a valid lock code before completing the audit.

If the audit is simulated, WMS does not apply the default lock code.

After setup, users can complete Outbound Audit without manually choosing a lock code for every positive discrepancy. WMS locks the discrepant OBLPN automatically, helping prevent it from being shipped before review.

Inventory and Audit History Update

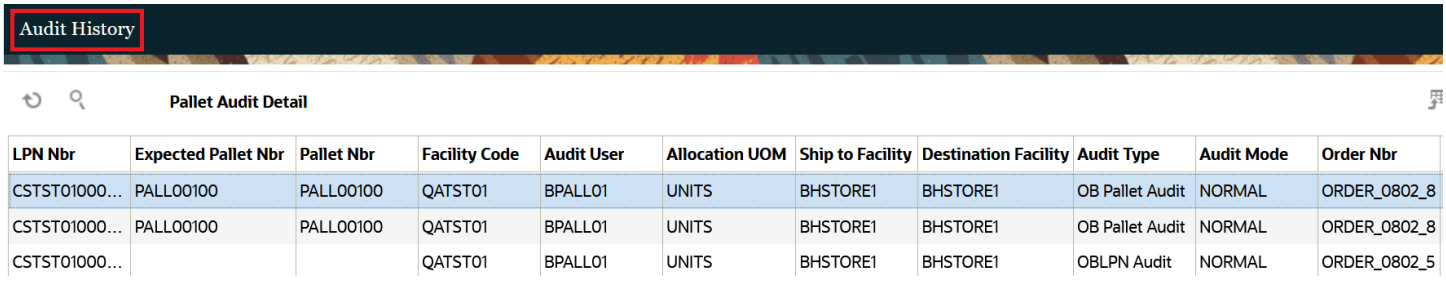
When conducting physical audit, let's assume you found the OBLPN has a quantity discrepancy. In such cases, the system records this discrepancy and associates it with the relevant OBLPN in the **Audit History** UI.

The table outlines the system behavior with respect to inventory and audit history under different audit scenarios:

Audit Scenario	Inventory Update	Audit History Record
Anticipated SKU audited with lesser inventory than expected	Yes	Yes
Anticipated SKU audited with more inventory than expected	No	Yes
Anticipated SKU audited with unanticipated Batch/Expiry/Inventory Attribute	No	Yes

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.



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 History Columns

Column	Description
Pallet Number	Pallet Number which has been scanned in Audit, If Pallet not Scanned display null

Column	Description
Audit OB LPN Number	Outbound LPN which has undergone Audit
Load Number	Load Number associated to the Pallet/OB LPN. If OB LPN is associated with Parcel carrier then display Load Number field blank
Expected Pallet Number	When OB Pallet is scanned, this column depicts the pallet number associated with the OB LPN Scanned
Audit Mode	Normal or Simulated
Audit Type	OB LPN Audit or OB Pallet Audit
Item Code	Item Scanned, If Outbound LPN scanned has multiple sku's write different rows for each sku
Packed Qty	Packed Qty associated to the inventory record for OB LPN. Qty Present on the OB LPN when the Outbound LPN was Packed.
Current Qty	Qty present in OB LPN during Audit (Can be 0 if Sku scanned is not anticipated in the OB LPN Scanned
Audit Qty	Quantity audited by User (Can be Zero or less or equal or greater than current qty)
Unit Variance	Current Qty-Audit Qty (If Audit Qty is greater than Current Qty, display the value in brackets).
Total Pack Cost	Unit_Cost for the item times the quantity expected for the sku in the OB LPN
Total Audit Cost	Unit_Cost for the item times the quantity Audited for the sku
Cost Variance	Total Pack Cost-Total Audit Cost. (If Total Audit Cost is greater than total pack cost, display the value in brackets).
Alternate Item Code	An alternate representation of the SKU, which concentrates SKU parts A through F into a single record.
Audit User	User who performed the audit transaction
Item Description	Description of the item.
Destination Facility Code	Destination facility for the OB LPN Scanned in Audit
Ship to Facility Code	Ship to facility for the OB LPN Scanned in Audit
Allocation UOM	Units/Packs/Cases
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

Column	Description
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.
priority_date	Priority Date of the item associated with the Outbound LPN Audited.
invn_attr_a to invn_attr_o	Inventory attributes of the item associated with the Outbound LPN Audited.
exp_date	Expiry Date of the item associated with the Outbound LPN Audited.
facility_code	Facility Code of the item associated with the Outbound LPN Audited.
wave_nbr	Refers to a grouping or batch of orders that are processed together as part of a single wave.
mod_user	User ID of the user who executed the Outbound LPN Audit.
alloc_mod_user	User ID of the user who executed the Outbound LPN Allocation.
discrepancy	Yes/No. Denotes if there is a difference in the current quantity and audited quantity.
reason_code	Records the reason code mentioned during the audit.

Multi-Allocation Units of Measure

The**Mobile Outbound Audit (rf.outbound.cwrfauditlpnplt)** transaction supports auditing OBLPNs with multi-allocation UOMs in SKU-Qty mode. During Outbound Audit, if an OBLPN has multi UOM allocation, you can scan a SKU and select the allocation UOM to audit the scanned SKU.

Note:

- The Outbound Audit flow supports auditing both multi-SKU and single-SKU with mixed allocation UOMs only in SKU-Qty mode (*qty-entry-mode* = SKU-Qty).
- If the screen parameter *qty-entry-mode* is set to Blank or “SKU-Scan”, Outbound Audit with multiple allocation UOMs is not supported. This is because prompting for allocation UOM selection on every SKU scan is not practical in this mode. To audit OBLPNs with multiple allocation UOMs, we recommend using SKU-Qty mode.

Screen Flow

When using the Outbound Audit transaction in SKU-Qty mode, if the scanned SKU has multiple allocation UOMs, the system displays an Allocation UOM selection list (for example, LPNS, UNITS, CASES, PACKS).

- Select a UOM from the list, then scan the quantity for the selected SKU in that UOM. The system processes the count in the selected UOM and performs required conversions within the transaction.
- You can select and scan same SKU for different allocation UOMs multiple times in an Outbound Audit transaction.
- When you scan a SKU with multiple allocation UOM quantities, the system updates the LPN Qty (UOM) field.

Example for single SKU with different allocation UOMs: An auditor audits OBLPN “SSOBLPN45” that contains SKUA allocation in 2 CASES and 3 UNITS. The auditor selects the appropriate UOM for each line and enters the counted quantity in the Outbound Audit transaction.

Note:

- You can use UOM Literal Translated UOM Codes to display in the Outbound Audit History UI. If UOM literals are configured for the system language, the UI displays the literal translated UOM code; otherwise, it displays the UOM code. Changes to literals updates the displayed “Allocation UOM” automatically.

LTL Load Management and Shipping

This chapter describes 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 manually define the Load that an order or OBLPN is assigned to.

1. Launch “Assign to Load” module.
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 Mobile parameters under the “Screens” tab.
    - Go to the “Screens” tab.
    - Search for the “Assign to Load” screen.
    - Select the screen and click 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 transaction will not allow you to re-assign orders that contain OBLPNs 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.

Stop Sequences for Loads

If you don’t pre create a load with stop or use the **Router Header/Detail** configuration, then the system will create stops on the route in a first come, first serve basis as OBLPNs are packed and assigned. The system creates the stop sequence for all of the destinations in the load with a sequence of ‘1’ because the system does not know the actual stop sequence.

After the load assignment is done and all stops for a load/route are created, then you can go to the UI and set the correct stop sequence.

Facility Parameter to Skip Duplicate Stop Sequence Number

Using the Facility Parameter **SKIP_DUPLICATE_STOP_SEQ_NBR_CHECK**, you can generate the stop sequence generation for a load as per user requirement for the eligible destination facilities while interfacing via the Outbound Load Interface.

You can configure **SKIP_DUPLICATE_STOP_SEQ_NBR_CHECK** by setting the parameter values as per the table below:

PARAMETER VALUE	BEHAVIOR
YES	Outbound Load init stage will allow you to change or set the same stop sequence on a load.
NO	Outbound Load init stage will restrict the changing of the stop sequence.

Note: When the parameter is not set (blank), the default behavior of the system will restrict the changing of the stop sequence (parameter value “No”).

Assign and unassign Orders from Outbound Load

You can assign orders directly from the load details screen, providing a faster and more intuitive workflow. Use the Outbound Load Number Orders page to assign eligible orders directly to a load. You can also remove orders from a load when needed. This helps you manage outbound loads without leaving the load details flow.

Before you begin, ensure:

- Required user groups have the **load / can assign order** permission.
- Users must also have access to the Outbound Load UI and the Number Orders page.

To assign the orders, do the following:

1. Open the Outbound Load UI.
2. Search for and open the required load.
3. Go to the **Number Orders** page.
4. Select Assign Order.
5. Use Advance Search if you need to filter orders using more specific criteria. Select one or more orders.
6. Assign the selected orders to the load.
7. Review any warning or validation message.
8. Confirm that WMS updates the load’s number of orders and OBLPNs.

After assignment, the selected eligible orders are added to the outbound load, and WMS updates the load details.

Note: WMS does not reassign orders that are already assigned to another load. The system displays the reason when an order can’t be assigned.

To unassign the orders, do the following:

1. Open the Outbound Load UI.
2. Search for and open the required load.
3. Go to the `Number Orders` page.
4. Select the orders you want to remove from the load.
5. Select `Unassign Order`.
6. Confirm the action, if prompted.
7. Verify that WMS updates the load’s order and OBLPN details.

Note: Review any warnings for orders associated with external planned loads before you continue. These warnings help you decide whether the assignment or removal should proceed.

After unassignment, WMS removes the selected orders from the load and refreshes the load counts.

Dynamic Load Assignment Based on Capacity

Warehouse operations often have more than one truckload or less-than-truckload load available for packed outbound LPNs. A load may leave earlier, use a specific dock, follow a route, or have limited trailer capacity. With dynamic load

assignment, you can configure rules that help Warehouse Management select the right load without manual review each time.

How to does this benefit the operations:

Dynamic load assignment helps you:

- Assign packed LPNs to eligible loads based on your warehouse rules.
- Sort available loads by key values such as departure time, delivery time, dock, route, and carrier.
- Prevent load assignment when the trailer doesn't have enough capacity.
- Use a default trailer type when Warehouse Management creates a load during close.
- Keep current load assignment behavior when you don't configure a load assignment rule.

Configuring Dynamic Load Assignment

The **Load Assignment Configuration** is used to control how Warehouse Management assigns packed outbound LPNs to TL and LTL loads. You can define which loads qualify, how the system should sort eligible loads, and whether the system should check trailer capacity before assigning an LPN.

> **Note:** This feature applies to TL and LTL load assignment. It doesn't apply to Parcel Flow.

Load Assignment Configuration

Use the Load Assignment Configuration screen to create and maintain load assignment rules for a facility and company by defining the following values:

- Facility
- Company
- Load Assignment Rule Name
- Method
- Capacity Check Flag

Ordering Criteria

Use **Ordering Criteria** to tell Warehouse Management how to sort eligible loads before it assigns an LPN. For example, if two loads go to the same destination and one leaves earlier, you can sort by scheduled delivery date and time in ascending order, so Warehouse Management selects the earlier load first based on the sequence Nbr set. You can order eligible loads by:

- Load Estimated Departure Date Time
- Load Scheduled Delivery Date Time
- Appointment Dock Type
- Load Route Number
- Appointment Create Timestamp
- Load Dock Number
- Load Carrier

Selection Criteria

Use **Selection Criteria** to limit which loads qualify for assignment. For example, if an LPN must go to a freezer dock, you can use dock type as a selection value, so Warehouse Management only considers matching loads. You can define selection criteria using these fields:

Load Fields	Stop Fields	Appointment Fields
Load Number	Stop BOL Number	Appointment Dock Number
Load Route	Stop Ship to Name	Appointment Number
Load Trailer Number	Stop Ship to Address	Appointment Dock Type
Load Driver		
Load Seal Number		
Load Trailer Type		
Load Carrier		
Load Status		

Trailer Capacity Check

Use **Capacity Check Flag** when Warehouse Management must confirm that the selected trailer has enough capacity before assigning an LPN. Capacity Check uses the trailer type on the load. Configure the trailer type with accurate values for:

- Max Weight
- Max Volume
- Max LPNs

Note: System doesn't use Max Units for this capacity check.

When the selected load reaches one of the configured capacity limits, Warehouse Management skips that load and checks the next eligible load.

Default Trailer Type

The `DEFAULT_TRAILER_TYPE` facility parameter is used to create a load during close. If `ASSIGN_NEW_LOAD_AT_CLOSE` is set to `Yes` and Warehouse Management doesn't find an eligible load, it can create a load. When `DEFAULT_TRAILER_TYPE` has a valid trailer type, Warehouse Management assigns that trailer type to the load.

If the default trailer type doesn't have enough capacity for the containers, Warehouse Management doesn't create the load and displays this message: *Assign to load failed Containers exceed the default trailer capacity. Please assign them to a load manually*.

How Warehouse Management Assigns the Load

When you pack or close an outbound LPN, Warehouse Management checks the configured facility parameters.

If a valid load assignment rule exists and `ASSIGN_LOAD_WHEN_PACKED` is set to `Yes`, Warehouse Management:

1. Finds TL and LTL loads that match the selection criteria.

2. Applies route handling behavior:
    - If route is present and `ROUTE_HANDLING_MODE` isn't `2`, Warehouse Management matches the route first.
    - If `ROUTE_HANDLING_MODE` is `2`, Warehouse Management uses the destination at the order header level to identify matching loads.
3. Sorts the eligible loads using the ordering criteria.
4. Checks trailer capacity when Capacity Check is selected.
5. Assigns the LPN to the first eligible load with enough capacity.
6. Checks the next eligible load when the first load doesn't have enough capacity.
7. Creates a load when no eligible load exists and `ASSIGN_NEW_LOAD_AT_CLOSE` is set to `Yes`.
8. Applies `DEFAULT_TRAILER_TYPE` to the created load when the parameter contains a valid trailer type.

To Enable Dynamic Load Assignment, do the following:

1. Go to the Trailer Type screen.
2. Define the trailer type for load assignment. Trailer Type, Description and accurate capacity values:
    - Max Weight
    - Max Volume
    - Max LPNs
    - Max Units
    - Length
    - Width
    - Height
3. Save the trailer type.
4. Go to the Load Assignment Configuration screen.
5. Create a load assignment rule.
    a. Enter the Load Assignment Configuration Rule Name.
    b. Check **Capacity Check** flag, if operation must validate trailer capacity before assigning LPNs.
    c. Keep the Method field set to Rule Based.
6. Open the rule details.
    a. Define the **Selection Criteria** that eligible loads must match.
    b. Define the **Ordering Criteria** that Warehouse Management should use to sort eligible loads.
    c. Save the load assignment rule.

Facility Parameter for Load Assignment Rules

Use the `LOAD_ASSIGNMENT_RULE_NAME` facility parameter to activate a load assignment rule.

To provision Load Assignment Rules

1. Go to Facility Parameters.
2. Set `LOAD_ASSIGNMENT_RULE_NAME` to the exact Load Assignment Rule Name.
3. Set `ASSIGN_LOAD_WHEN_PACKED` to `Yes`.
    a. If Warehouse Management should create a load when no eligible load exists, set `ASSIGN_NEW_LOAD_AT_CLOSE` to `Yes`.
    b. If Warehouse Management should apply a trailer type to loads it creates, set `DEFAULT_TRAILER_TYPE` to a valid trailer type.
    c. Save the facility parameter changes.

Notes and Considerations

- This feature applies only to TL and LTL load assignment.
- Parcel Flow doesn't use this rule.
- Capacity Check works only with automatic load assignment through Load Assignment Configuration.
- Keep trailer type capacity values accurate when you use Capacity Check.
- Pre-create loads with stops when you need operations to honor stop sequence.
- If a default trailer type capacity can't hold the containers, assign the load manually.

Outbound Loads

Display Last Printed Time-stamp for Outbound LPN Labels

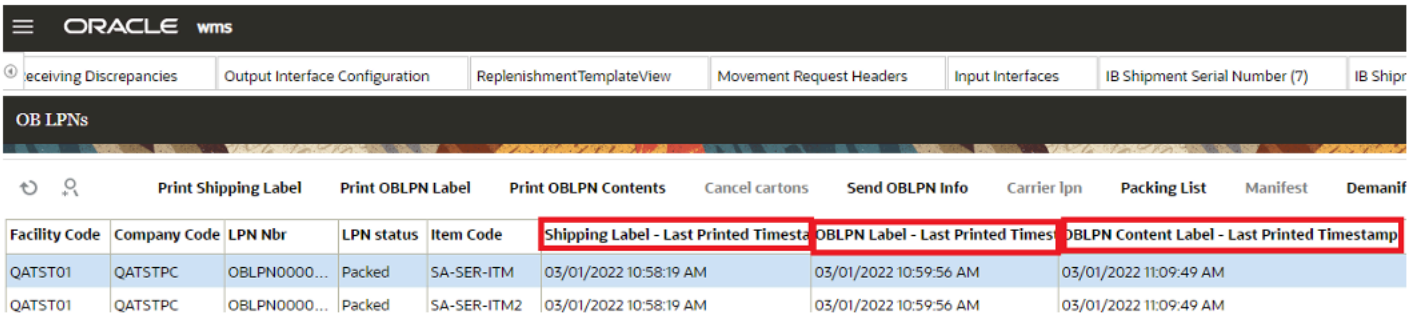
There are three fields available in the **Outbound LPN** UI where you can easily view the date and time when the label was printed.

The following three fields displays the last printed time-stamp for each type of label:

- Shipping Label - Last Printed Time-stamp
- OBLPN Label - Last Printed Time-stamp
- OBLPN Content Label - Last Printed Time-stamp

When a label is printed, the above fields are populated with the current facility time-stamp 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 time-stamp.



Note: The time-stamp fields are updated with the current time-stamp even if the fields were already populated with a time-stamp.

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 up, allows you to submit a Guia de Despacho.
Check In	Allows you to Check In load.
Check Out	Allows you to Check Out Load.
Reset Load Status	Must have Reset Load Status permission. Enabled only when the selected load is in the status : **Close load in progress** or **Ship Load In Progress**.This button enables the user to reset the Load with status Close load in progress to **Loading Started** and Ship Load In Progress to **Loaded** status.
Bill of Lading	According to your configuration on Company Report Type, it will Print Bill of Lading.
Export Shipment Packing List	According to your configuration on Company Report Type, it will Print Export Shipment Packing List
Shippers Export Packing List	According to your configuration on Company Report Type, it will Print Shippers Export Packing List
Commercial Invoice	According to your configuration on Company Report Type, it will Print Commercial Invoice
Ship Load	Ships Load
Print LPN Labels	Prints LPN Labels
Close Load	Close Loads
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.

Prevent Loading/Shipping a Load with No OBLPN

The option to ship a load without an OBLPN is disabled and when the user tries to ship a load which does not contain any OBLPN, the system displays an error message.

Additionally, in case when the user selects multiple loads on the Outbound Load UI screen, the ‘Ship Load’ button stays disabled irrespective of the number of OBLPNs present in each load selected.

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 Number orders hyper-link, 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.

Action Button	Description
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. Go to 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 mobile will prompt the message "Load complete."
8. You must close the load with the option "Ctrl-E: Close Load."
    - At this moment, if the system identifies pending pallets/cartons still to be loaded, a warning message is displayed 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".

Suggest Pallet Number During Loading

The Load OBLPN transaction can suggest Pallet numbers during loading if the suggested OBLPNs are associated with a pallet. On enabling screen parameter 'next-pallet-to-scan' on the (rf.outbound.cwrfloadshipment) module, the system suggest the next pallet you can scan and load the corresponding OBLPNs all at once when the OBLPNs are palletized.

To enable suggesting the next pallet, do the following:

1. Go to **Load {oblpn} (rf.outbound.cwrfloadshipment)** > parameter > set the '**next-pallet-to-scan'** parameter to one of the following choices:

    Parameter Choice

Parameter Configuration	Behaviour
When 'next-pallet-to-scan' is set to Blank (default behaviour)	You will be suggested only the next OBLPN to be scanned even if the assigned OBLPNs are palletized.
When 'next-pallet-to-scan' is set to suggest next pallet	You will be suggested the next pallet as a new info field when the suggested OBLPN is palletized. With this new parameter configured, you will see both 'Next OBLPN' and the corresponding 'Next pallet' info fields.

    The Pallets will be suggested only if the assigned OBLPNs are palletized.
2. Click Save.

> **Note:** The loading mode should be set to **Assign OBLPN Mode** and OBLPNs should be assigned to the scanned Load.

> **Note:** If the OBLPNs are not palletized or if the Loading mode is set to "Assign OBLPN Mode", then you will see the 'Next pallet' info field as blank even if the 'next-pallet-to-scan' parameter is set to 'suggest next pallet.'

If the Assigned OBLPNs in the scanned load are not palletized, then the 'Next pallet' info field will be blank.

Ship Load

You can perform shipping activities for an OB load via the Mobile. 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

1. Launch to mobile "Load OBLPN".
2. The Load OBLPN screen displays the "Ctrl-P: Ship Load" hotkey.
3. Enter the required information:
    - Location: Location of the OB Load assigned
    - Load: Load Number
    - Trailer number: Trainer Number
    - Route: Route information
    - 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 hotkey "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 Load OBLPN screen and the required IHT records are written.

   For more details about the RF Load parameters, refer to the **Oracle Warehouse Management Mobile Parameters** document.

> **Note:** To access the latest Mobile Parameters, go to the *Oracle WMS Cloud Information Center* From the top of the page, click the **Documentation tab,** then click the link under **Current Documentation**.

Resend Shipping Info from Update LPN Type

You can regenerate the OBLPN Shipping info file from the Mobile **Update LPN Type (**rf.outbound.cwrfupdatelpntype**)** transaction. You use the OBLPN shipping information for multiple reasons and one of them is to communicate with external parcel shipments to obtain information. Having the correct LPN type is vital, as external systems need this to provide the right information. There could be exceptions, where you need to update the LPN type after the OBLPN Shipping info file has already been sent. In such scenarios, the system allows you to resend the OBLPN Shipping info file from the UI.

The following screen parameters are available in the Update LPN Type/Weight/Dimensions module:

Parameter output_file_to_generate

Parameter Name	**output_file_to_generate**
Parameter type	Selection
Parameter options	• blank/none • oblpn_shipping_info o Applicable if user scanned container type of LPN and scanned LPN is of type OBLPN. • lpn_inventory o Applicable if user scanned container type of LPN and scanned LPN is of type OBLPN or IBLPN. • pallet_shipping_info Applicable only if user is handling container type of "pallet
Default behavior	Blank (acts as No)

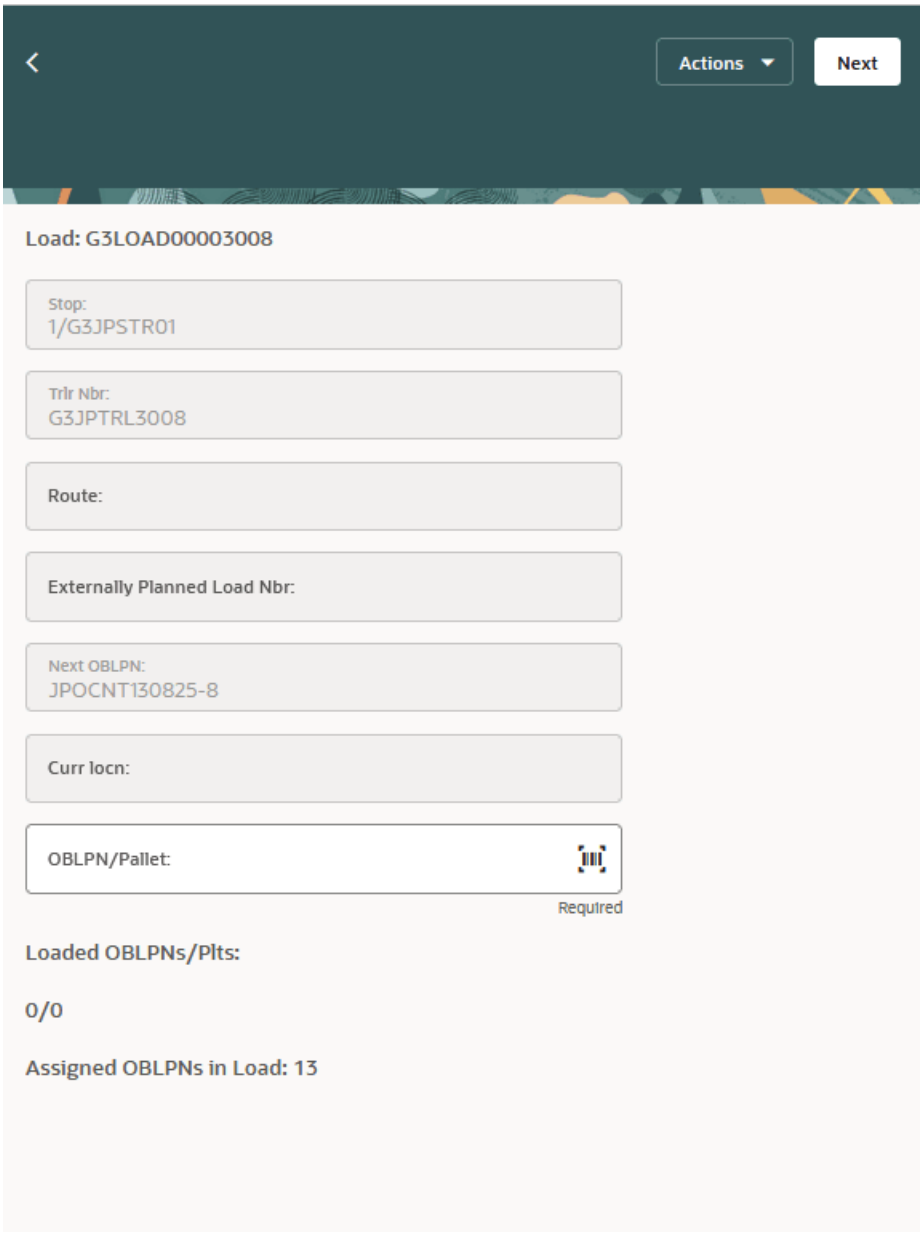
Enhance OBLPN Visibility in Mobile Load OBLPN Transaction

You can now view all OBLPNs (Outbound License Plate Numbers) associated with a load before initiating the loading process. This has Improved visibility and planning for outbound loading operations. This enables more efficient and accurate load planning, reducing the chances of missed or misplaced shipments.

Previously, the **Load OBLPN** screen in WMS only displayed the count of loaded OBLPNs/Pallets once the loading had begun.

With this enhancement, upon scanning a Load Number in the RF Load OBLPN screen, the system now displays the count of OBLPNs associated with that load.

This feature provides transparency and how many LPNs are supposed to be loaded so the user can plan accordingly.



Note: There is no change to the existing Load OBLPN operational flow or behavior.

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” module’s parameters. Users can configure to either prompt a Staging or Pack & Hold location while unloading.

1. Launch 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. Mobile prompts the 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 **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 Mobile Dynamic Staging

Oracle Cloud WMS ensures that the capacity limits in staging locations during Dynamic Staging and Unloading OBLPN transactions.

When the following capacity limits are configured at the location level, Dynamic Staging and Unloading OBLPN transactions checks available capacity in the location to make sure the incoming inventory fits in the location.

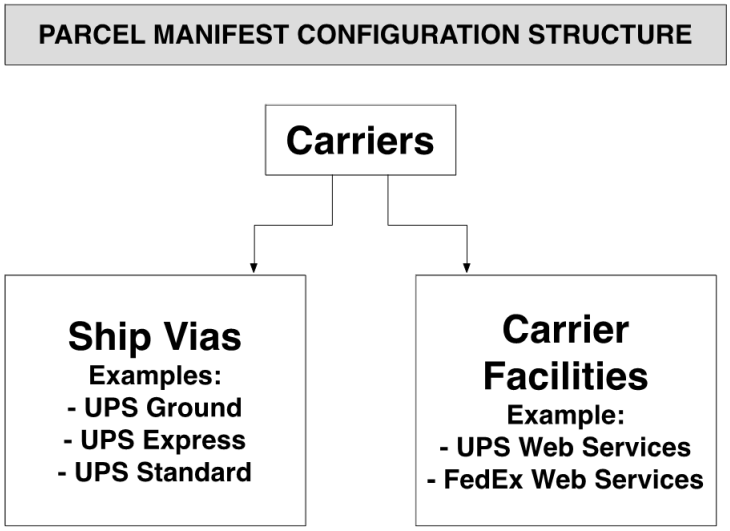
- Max Units
- Max LPNs
- Max Volume
- Max Weight
- Dimensions - (Length, Width, Height)

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 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.

Standard Carrier UI

In the **Standard Carrier** UI, you can view a list of the carriers WMS supports. From here, you can configure your specific carrier with a carrier code.

- **Standard Carrier Accessorial** (Detail UI) - In WMS the Standard Carrier Accessorial Detail UI correlates to Ship Via information. You can select a carrier type and click Standard Carrier Accessorial Detail button to view its details. The detail could include additional special instructions for the shipment (for example, deliver on Saturday or sign for the package.)
- **Standard Carrier Service** (Detail UI) - You can select a carrier type and click the Standard Carrier Service button to view its details. This includes the web services code and carrier description/details.

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:

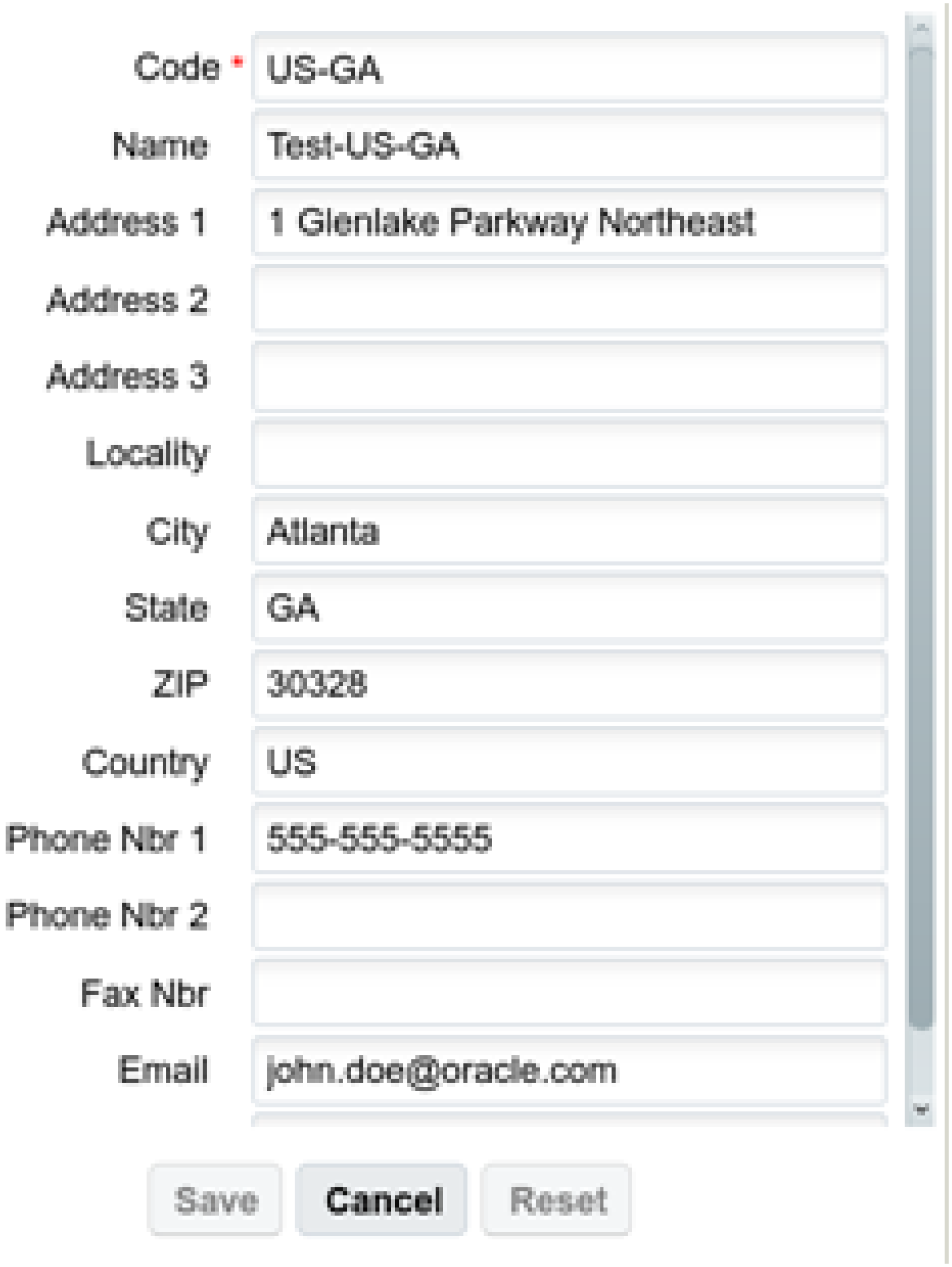
1. Go to the "Carrier Facility" screen.
2. Populate the necessary fields as described below.
3. Press "Save".

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)



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

Wave Template's Routing Mode is used to indicate the ship via for the parcel orders. This configuration is similar to "PACKING_ROUTING_MODE" company parameter configuration, but in this case the order's ship via is verified at the wave.

To update the Routing Mode for a Wave Template, do the following:

1. Go to the **Wave Template** screen.

2. Select a Wave Template and click the edit icon.
3. In the “Routing Mode” field, select one of the following options:
    - “MODE_1” – This enables the connection to parcel services based on the “Ship to Facility” in the **Order Header** screen.

      Note:
      - If **Order Header** screen does not have a “Ship to Facility”, then the system will not consider the OBLPN for manifesting and will not generate the tracking number.
      - Make sure the open orders using this mode have the “Ship to Facility” field populated.

    - “MODE_2” – This enables the connection to parcel services based on the “Ship Via” in the **Order Header** screen.

      Note: If **Order Header** screen does not have a “Ship Via”, then the system will consider the default Ship Via of the Ship to Facility mentioned in the **Order Header** screen.

    Note: If you update the field as Blank, then the route determination will not be done.
4. Click **Save**.

This wave parameter works with the active routes configured in “**Route Header View**” for Ship to Facilities.

When a wave is completed, 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 Via orders that will be packed.

Weight on outbound cartons is always mandatory to receive tracking numbers from UPS/FedEx Services. Therefore, weight data must be specified either in the Item Master or in the IBLPNs during receipt.

- For Full LPN, weight on outbound carton will be the weight specified on the inbound carton. If no weight is specified on the inbound cartons, the weight will be calculated from the Item Master given that items have a weight specified.
- For LPN Units, and Cases, weight is calculated at packing.
- If the Ship To facility on the order header is not on any active routes, or if there is no active route, outbound cartons are no manifested or packed until an appropriate route is active.
- If there is no open manifest for the order's particular carrier and ship via, the outbound cartons are not manifested or packed until a manifest is open for the appropriate ship via.

Note for Manifesting Orders via Fedex

When manifesting customer orders via Fedex, please ensure that the order's **customer_po_nbr** field does not exceed 30 characters, as this is the maximum length supported by Fedex.

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-Contener Loaded" is created if the OBLPN is updated to Loaded Status.

FedEx Multi-Piece Shipment Configuration

FedEx supports the grouping of two or more packages during ship requests that are fetching a tracking number. In general, these packages must all use the same service and must all have the same destination, billing information, and

accessorials. Multi-Piece Shipment (MPS) users gain added visibility into FedEx shipment tracking and may also be granted better rates for MPS. You should check with your FedEx representative to determine if MPS can be used.

For an MPS shipment, each OBLPN still requires it's own request to FedEx for a tracking number. MPS packages are tied together by a master tracking number. The master tracking number is the tracking number of the first OBLPN manifested in the group. It's tracking number is passed as the master tracking number is each subsequent OBLPN's ship request. Additional information such as the total number of pieces (X of Y) and total shipment weight is required for MPS. Different shipping scenarios such as Dry Ice or International MPS require even more shipment-level information in the request.

IMPORTANT: MPS also requires additional operational work as well as for exception scenarios. Because information pertaining to all OBLPN's in the group must be sent in each OBLPN's request, the final state must be available before any tracking numbers are fetched.

For example, assume a wave cubes an order into three OBLPNs and a FedEx MPS shipment is created and three tracking numbers are fetched. If during packing it is determined that the order requires four OBLPNs, then the entire MPS shipment must be voided (by voiding any of one of the tracking numbers) and all four OBLPNs re-manifested and new tracking numbers and labels obtained. If the MPS group changes, then all information must be updated to FedEx, which requires the fetching of new tracking numbers.

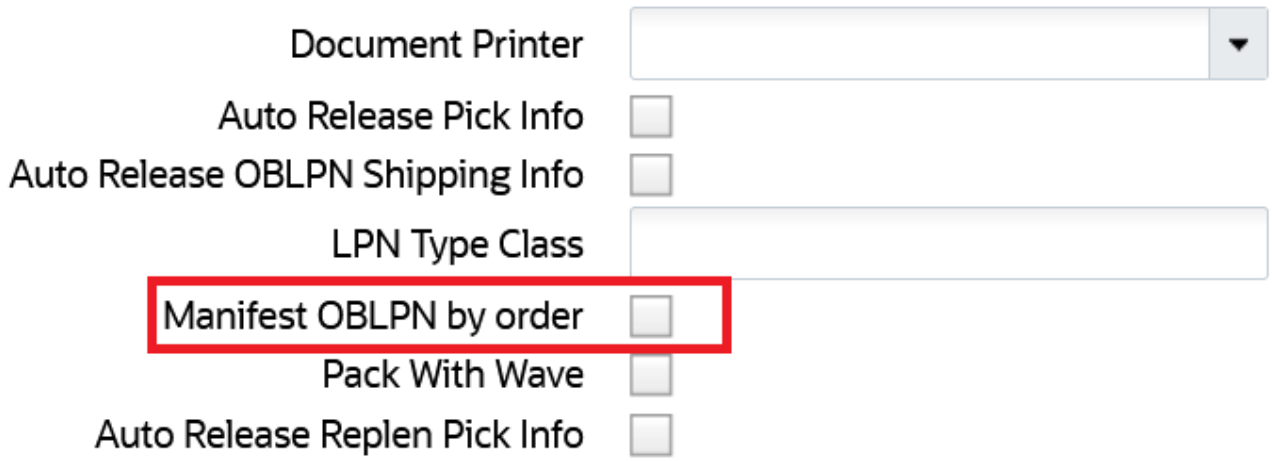
Note: Currently, Oracle WMS Cloud only supports grouping OBLPNs for MPS by a single order.

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, enable the following two flags:

- "**Manifest OBLPN by order**" in the Wave Template UI

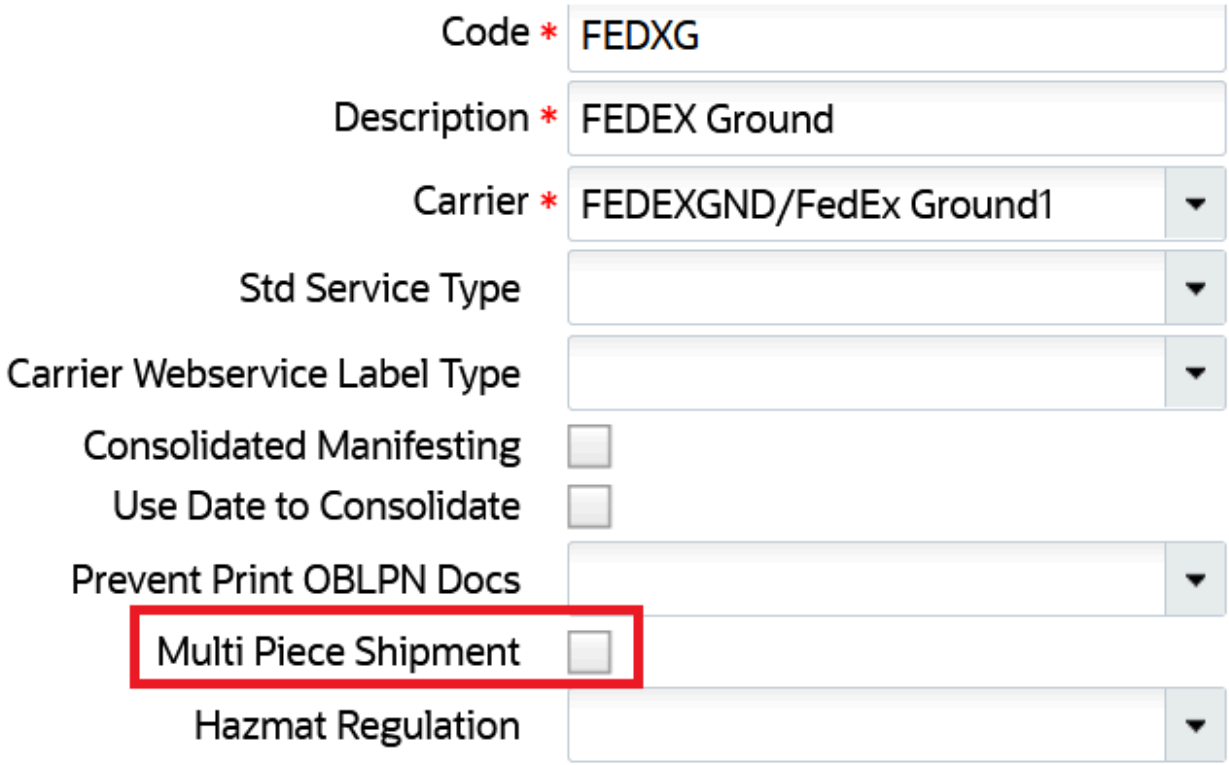
  After enabling the flag, the system looks up the Ship Via for the OBLPNS allocated by the configured wave. The wave proceeds with the multi piece shipment flow if the Ship Via is configured with the "Multi Piece Shipment" flag.



- **“Multi Piece Shipment”** flag in the Ship Via UI

  After enabling the flag, the system will consider configuring the Ship Via for the MPS shipment.

  When you enable the “Multi piece Shipment” and “Manifest OBLPN by order” flags, the system groups the OBLPNs by Order Number for the ship via (Multi piece Shipment flag enabled) selected by the wave for multi-piece manifest.



After running the wave, the system completes the manifestation process. At the end of the manifesting process, the master tracking number for all OBLPNs in the group will be updated with the master tracking number on the carrier LPN.

> **Note:** To configure the MPS, you must configure both the “Multi Piece Shipment” and “Manifest OBLPN by order” flags.

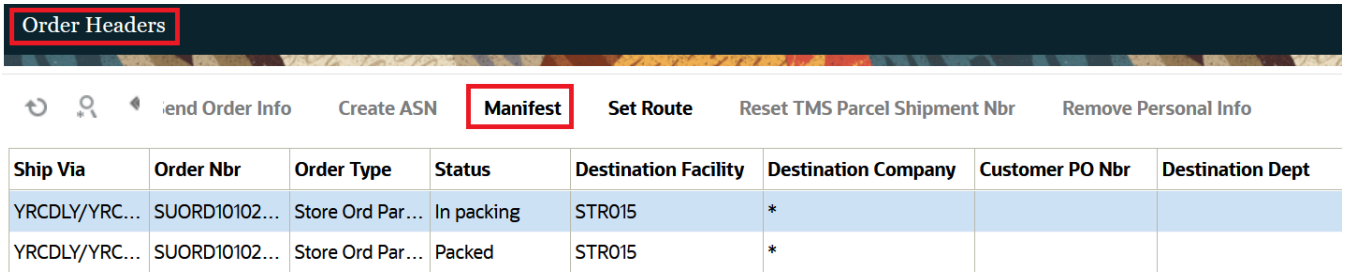
You can trigger an MPS request for all OBLPNs associated with an order on the **Order Headers** screen.

To manually trigger an MPS request, do the following:

1. Go to **Order Headers** screen.
2. Select an order record.

3. Click the “Manifest” button.

   This manifests all OBLPNs for the selected order.



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 through Mobile Device

1. Go to the "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.
    - 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.

5 Inventory Management

Post Packing OBLPN Updates and Handling Module

You can update an OBLPN post packing using the **Post Packing LPN Handling** (rf.outbound.cwrfpostpackinglpnhandling) module. The Post Packing module is available with the following screen parameters:

Parameter	Type	Possible Values	Behavior
print-column-order-descr	Text	Rule name configured from column ordering description created in the UI.	• If the value is configured, the system prints the associated labels and documents tied with the column ordering rule in the sequence configured. • If the value is No / Blank, the system defaults to print the Shipping label (for OBLPN) and the Order packing Slip.
prompt-label-printer	Selection	None | Yes | No	• If the value is Yes, the system prompts you to enter the label printer upon launching the screen. • If the value is **No** / **Blank**, the system does not prompt for printer launching the screen. And, the system defaults to label printer configured in the Users UI.
prompt-doc-printer	Selection	None | Yes | No	• If the value is Yes, the system prompts you to enter the document printer upon launching the screen. • If the value is No / Blank the system does not prompt for printer when screen is launched. And, the system defaults to document printer configured in the Users UI.
validate-critical-dims	Selection	None | Yes | No	• If the value is set to **None**, the updated LPN type critical dimensions will not be validated against item critical dimensions. • If the value is set to Yes, the updated LPN type critical dimensions will be validated against item critical dimensions.

Parameter	Type	Possible Values	Behavior
			NOTE: The Items dimension value are compared for Length, Width and Height with respective LPN type dimension value. And, if any value for the item is greater, the LPN type will not be updated and error message will be displayed. • If the value set to No, the updated LPN type critical dimensions will not be validated against item critical dimensions. **NOTE**: Validate-critical-dims will not have any impact when container-type is 'Pallet'.
accept-container-dimensions	Selection	None | Yes | No	• Default value is blank, the functionality works the same as No. • If the value is set to None / No, the dimensions fields (Length, Width and Height) for the LPN/pallet scanned (depending on container-type setting) will not be displayed in RF screen. • If the value is set to Yes, the dimensions (Length, Width and Height) of the LPN/ pallet scanned (depending on container-type setting) will be displayed and can be updated in RF screen.
accept-container-weight	Selection	None | Yes | No	• Default value is blank, the functionality works the same as No. • If the value is set to None / No, the weight field for the LPN / pallet scanned (depending on container-type setting) will not be displayed in RF screen. • If the value is set to Yes, the weight of the LPN / pallet scanned (depending on container-type setting) will be displayed and can be updated in RF screen.
container-type	Selection	None(blank) | LPN | Pallet	• Default value is blank (None). • If the value is set to None / LPN, you can scan/enter LPN (inbound and outbound) in the RF screen and update LPN type for the scanned LPN.

Parameter	Type	Possible Values	Behavior
			Weight/Dimensions for the LPN can be updated based on accept-container-weight and accept-container-dimensions settings. • If the value is set to Pallet, you can scan/enter pallet (inbound and outbound) in the RF screen and update LPN type for the scanned pallet. Weight/Dimensions for the pallet can be updated based on accept-container-weight and accept-container-dimensions settings.
output-file-to-generate	Selection	None | OBLPN Shipping Info | LPN Inventory | Pallet Shipping	• Default value is None (blank), no file will be generated. • If the value is set to 'OBLPN Shipping Info', when the screen parameter container-type is LPN or Blank and the scanned LPN is Outbound LPN, the OBLPN shipping info file will be generated. • If set to 'LPN Inventory', when the screen parameter container-type is LPN or Blank and the scanned LPN is Outbound/Inbound LPN, LPN Inventory file will be generated. • If set to 'Pallet Shipping Info', when the screen parameter container-type is Pallet and contains outbound LPNs, the pallet shipping info file will be generated. **NOTE**: You will not be able to generate any output: • If scanned entity is pallet and screen parameter is not configured to generate pallet shipping info. • If scanned entity is Inbound LPN and screen parameter is not configured to generate LPN Inventory. • If scanned entity is Outbound LPN and screen parameter is not configured to generate OBLPN Shipping Info or LPN Inventory.

Additionally,

- The OBLPN Type prompt is not mandatory.
- The printing parameters (that is, 'print-column-order-descr', 'prompt-label-printer', 'prompt-doc-printer') are not applicable for Pallet mode. And, the RF screen will display an error with an appropriate warning reflecting the same.
- The RF transaction now validates users input for critical dimensions(L/W/H), Weight, and Volume.

The following table describes the RF behavior when the respective values are set for the following parameters:

print-column-order-descr	prompt-label-printer	prompt-doc-printer	Behavior
Not Populated	No	No	• No printing initiated.
Not Populated	Yes	Yes	• Either one of the prompt printer parameters is Yes.
Populated	No	No	• Defaults to print Shipping Label. • Defaults to print Order Packing Slip. • Label printing defaults to User's default label printer. • Document printing defaults to User's default document printer
Populated	Yes	No	• Defaults to print Shipping Label. • Defaults to print Order Packing Slip. • RF prompts for the label printer. Displays an error if valid printer is not scanned. • Document printing defaults to User's default Document printer.
Populated	Yes	Yes	• Defaults to print Shipping Label. • Defaults to print Order Packing Slip. • RF prompts for the label printer. Displays an error if valid printer is not scanned. • RF prompts for the document printer. Displays an error if valid printer is not scanned.
Populated	Yes	Yes	• Triggers to print the Label types configured in the rule. • Defaults to print Order Packing Slip.

print-column-order-descr	prompt-label-printer	prompt-doc-printer	Behavior
			• RF prompts for the label printer. Displays an error if valid printer is not scanned. • RF prompts for the document printer. Displays an error if valid printer is not scanned.
Populated	Yes	Yes	• Defaults to print Shipping Label. • Triggers to print the document types configured in the rule. • RF prompts for the label printer. Displays an error if valid printer is not scanned. • RF prompts for the document printer. Displays an error if valid printer is not scanned.
Populated	Yes	Yes	• Triggers to print the Label types configured in the rule. • Triggers to print the document types configured in the rule. • RF prompts for the label printer. Displays an error if valid printer is not scanned. • RF prompts for the document printer. Displays an error if valid printer is not scanned.

Perform Post Packing Transactions Through Tasking

You can perform perform task zone movements and OBLPN Putaway. using the task type “POST_PACK_HNDL.” This Task Type is available in the following non-tasked RF transactions:

- RF Direct Allocation (rf.outbound.cwrfdirectallocation)
- RF Combine OBLPN (rf.outbound.cwrfcombineoblpn)
- RF Repack OBLPN (rf.outbound.cwrfrepackoblpn)

You can create and invoke a task of this task type through a control command (CTRL-T: Create Task) from inside of these RF transactions. When you use the control command, this indicates that you are done with packing and that you want to create a task for all the destination/to OBLPNs (one or more) scanned during the current session.

The system allows you to perform updates on the OBLPN (like capture weight/printing) based on the requirement, move the OBLPN between drop locations (through task zone movements) and finally putaway to loading/staging locations for shipping, all in one continuous tasked flow.

Configuration

The following two screen parameters have been added to RF Direct Allocation, RF Combine LPN, and RF Repack transactions. These parameters allow you to trigger the task for the new task type:

Parameter Name	Type	Values
post-pack-task-type-description	Text	Task type description for the task type “POST-PACK-HNDL”.
dest-task-zone	Text	Destination zone for the task zone move rules.

- When you configure the above parameters with valid values and invoke the control command (CTRL+T) for the OBLPN(s) scanned in the transaction, a new task is created and executed which continues into the next program configured as part of the task type. This control command is visible in the RF only when the task type screen parameter is configured.
- Invalid value will result in RF displaying an error 'No Task Created'. In case, when there are no OBLPNs to be tasked and the control command is invoked, the RF displays an error "No eligible OBLPNs to be tasked".
- The RF transactions Direct Allocation/Combine/Repack also supports OBLPN updates, such as, Printing, Auto Loading, Movements or promoting Drop, LPN type, and so on, through their own screen parameters. When the mentioned transactions are configured for post packing, these screen parameters will be deliberately ignored.

Note: Once the post packing task type is configured, the screen parameters like printing/autoload/prompt drop will be ignored.

The screen parameters that may be ignored by the system are as follows:

- prompt-drop
- auto-load,
- print-labels,
- prompt-oblpn-type,
- print-extras,
- print-column-order-descr,
- prompt-lpn-type-on-packed,
- print-to-oblpn-label,etc.)

Note: Where 'column-ordering' is configured to print documents, the 'TASK_REPORT' report type does not apply for post packing updates and the associated allocations/task is completed and the OBLPN in question might be linked to allocations coming from multiple waves. In case you configure this, the application logs will be written to convey that the system will ignore it.

For RF Repack OBLPN:

- Both picked and packed OBLPNs are eligible for post packing updates.
- When you first scan the to-OBLPN in Repack and If Repack (or combine) is configured for post packing, the RF validates to check if it is linked to any incomplete task (of any task type) or if any open allocations are left for this OBLPN. If linked, the RF throws a hard error and does not allow you to proceed further.

Note:

- Not all programs are mandatory, but at least one program must be configured in the new task type for the task to be created.
- You may encounter noticeable delay if the OBLPN task count is more than a few.
- It is recommended for you to use the Ctrl-E command for all updates to be successfully completed for each of the OBLPNs scanned in the session.
- Load assignment/Manifesting is explicitly completed after post packing updates have been done.

Watch video

Post Packing Support for Existing Picking Tasks

You can make updates on a packed OBLPN using the **Mobile Post Packing (rf.outbound.cwrfpostpackinglpnhandling)** transaction, and you can also access Mobile Post Packing as part of your tasks without having to exit the task or manually initiate the transaction separately.

Non-Cubed Picking Tasked Flows to Support Post Packing Updates

To configure this flow, please follow the instructions below:

1. Configure the module **rf.outbound.cwrfpostpackinglpnhandling** as the second program (Sequence Number 2) or/and the fourth program in the following task types/allocation types:
    - **LPNUNITS**: Tasks that allocate and pick individual units from a License Plate Number (LPN).
    - **LPNPACKS**: Picking and allocating tasks at the pack level within an LPN.
    - **LPNCASES**: Handles tasks for picking and allocating full cases within an LPN.
    - **NC-ACTIVE-PICK**: Active picking tasks that are not container-specific (Non-Container Active Pick), useful for dynamic picking operations.
    - **FULL-CONTAINER**: Tasks involving the picking of a full container or LPN as a single unit.
    - **FULL-LPN-PALLET**: Designed for handling tasks that pick and allocate a full pallet, treated as a single LPN.
2. Configure Task Zone movements and OBLPN Putaway as needed.

    The handling of screen parameters and other considerations for Pack NC tasked flow are as follows:

- It is recommended that users utilize the Ctrl-E command for closing all the OBLPNs for which packing is completed.
- Load assignment and manifesting should be explicitly done after completing post-packing updates.
- Post-packing updates are not supported when **auto-pack-one-uom** is enabled. In this flow, the system treats **one unit as one OBLPN**, and **N units in a case as N OBLPNs**. This is a **non-cubed picking flow**, where OBLPNs are generated automatically in the backend. The system creates the required OBLPNs per UOM and prints the corresponding labels.
- Post-packing flow is not supported when retain-lpn-on-task is set to NO. This feature is mainly used for pushing LPNs onto a conveyor for the next zone picking or for the LPNs on the conveyor when MHE Route Instruction Rules come into effect.

- Screen parameters related to printing, loading, LPN type, prompting drop and others will not be suppressed when Post packing is involved. It is up to the user's discretion to configure parameters that will not be changed or updated again in the post-packing program.

Note: Each of the newly added programs are not mandatory in the Pack NC Task types, but at least one program must be configured in the task type for a meaningful task.

Full LPN Tasked Flows to Support Post Packing Updates

For Full LPN task types:

1. Configure the module **rf.outbound.cwrfpostpackinglpnhandling** as the second program (Sequence Number 2) or/and the fourth program in the following task types/allocation types:
   - FULL-CONTAINER / Full LPN
   - FULL-LPN-PALLET / Full LPN
2. Configure Task Zone Movements and OBLPN putaway transactions as needed.

The handling of screen parameters and other considerations for Full LPN tasked flow are as follows:

- The parameter **'oblpn-status-post-picking'** can have values of Packed or Picked. The OBLPNs with either status will work for post-packing updates (similar to Repack functionality).
- When the palletize-flag is set to "palletize after packing," the resulting output will be a pallet. However, it's important to note that pallet handling is not supported in the post-packing process if configured after. In such cases, an error message will be displayed during post packing, indicating that "Pallet handling is not supported."
- It is recommended that users utilize the CTRL-E command to close all OBLPNs packed for each individual OBLPN.
- Load assignment and manifesting should be explicitly done after completing post-packing updates.
- Screen parameters such as printing, update LPN type, and others (parameters that also exist in the post-packing transaction) will not be suppressed when post-packing is involved. Users have the discretion to configure parameters that will not be changed or updated again in the post-packing program. However, please

be aware that parameters like the palletize-flag, when set to “palletize after packing,” will result in a pallet, which is not supported in the post-packing process.

- Pallet handling is not supported in the post-packing process. If the container type is set to Pallet in the post-packing transaction, an error will occur.

Note: Each of the newly added programs is not mandatory in the Full LPN Task types, but at least one program must be configured in the task type for a meaningful task.

For more detailed information on Post Packing Transactions for Full LPN Picking, see the following video:

Watch video

Printing History

The logs for all your label and document printing transactions are displayed on the **Printing History UI**. You can control this by enabling/disabling the printing history flag.

To enable printing history

1. Go to Facilities.
2. Click your desired eligible facility.
3. Click the **Set Printing Audit History Flag** action button.

To disable printing history

1. Go to Facilities.
2. Click your desired eligible facility.
3. Click the **Unset Printing Audit History Flag** action button.

To enable reprinting of labels

You can also verify and control reprinting for labels via the group permission **Printing/Allow Reprint**.

1. Go to Group Configurations.
2. Click to select the user who you wish to give the reprinting privileges.
3. Click**Permissions** on the header.
4. Scroll down on the permissions list and select the **Printing History/Allow Reprint** permission.

Printing Item Labels

This section covers the following topics:

- *Item UI*
- *IB Shipment UI*

- *Print Labels Securely Using HTTPS Protocol*

RF Print Label

You can print item labels from handheld devices using the Mobile Print Item Label module.

1. Once you select Print Item Label from mobile, you are presented with an option to enter the label printer.
    - 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.
    - 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.
    - If this message is configured as a warning, you can either accept the message (using Ctrl+A) to print to default printer or hit Ctrl+W to go back to the printer field and enter a different label printer.
    - If this message is configured as an error, you are forced to go back (using Ctrl+W) and enter printer in the printer field.

    > **Note:** If the message is not enabled, this message does not show up at all. The default printer is automatically populated in the printer field when you tab out of the printer field.

2. After printer validations, you are prompted to scan the item barcode or vendor barcode.
3. Finally you are prompted to enter the number of labels required to be printed for the scanned item. A quantity greater than 0 must be provided.
4. If a customized item label that has been designed through label designer is configured, then the customized label will be printed. Else item label(s) will be printed based on base label format.

Print Multiple Copies of Labels

You can now print your desired number of Labels and Ship Labels by configuring the parameter “prompt-number-of-copies” to Yes for **Mobile Print Label** (rf.outbound.cwrfprintlpnlbl) and the parameter “prompt-number-of-labels-copies” to Yes for **Mobile Print Ship Label** (rf.outbound.cwrfprintshiplbl) screens.

> **Note:** By default, the system prints only one label if you set the parameters to No.

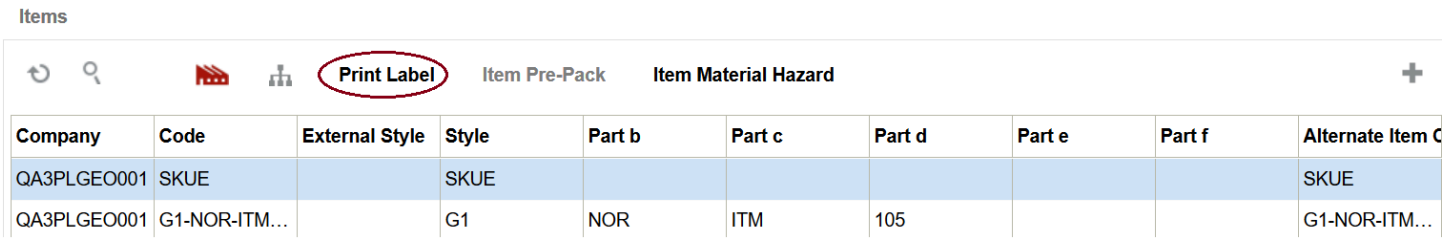
Steps to Enable:

1. Go to Mobile Print Label or Mobile Print Ship Label.
2. Configure the "prompt-number-of-copies" or "prompt-number-of-label-copies"

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:



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.

Item Inventory by LPN UI

You can print LPN labels via the Item Inventory by LPN UI. This is controlled by the group permissions "Container / Can print IBLPN labels" for inbound labels and "Container / Can print OBLPN labels" for outbound labels.

For printing inbound LPN labels (LPN Type "I")

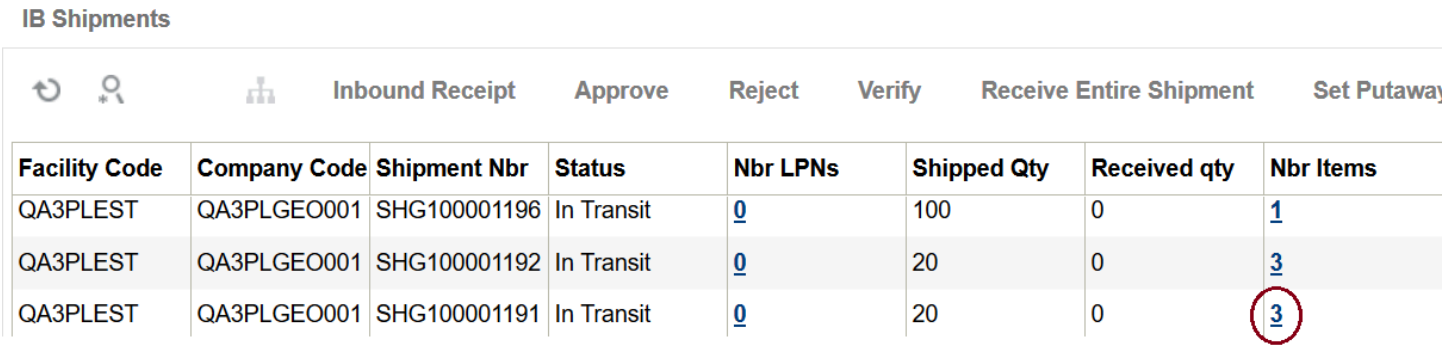
1. Go to Group Configurations.
2. Select the user you wish to give the reprinting privileges.
3. Click **Permissions** on the header.
4. Select the **Container / Can print IBLPN labels** permission.
5. Click the **Print Label** action button on the header to print IBLPN labels.

For printing outbound LPN labels (LPN Type "O")

1. Go to Group Configurations.
2. Select the user you wish to give the reprinting privileges.
3. Click **Permissions** on the header.
4. Select the **Container / Can print OBLPN labels** permission.
5. Click the **Print Shipping Label**, **Print OBLPN Label** and **Print OBLPN Contents** action buttons on the header to print the respective labels.

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.

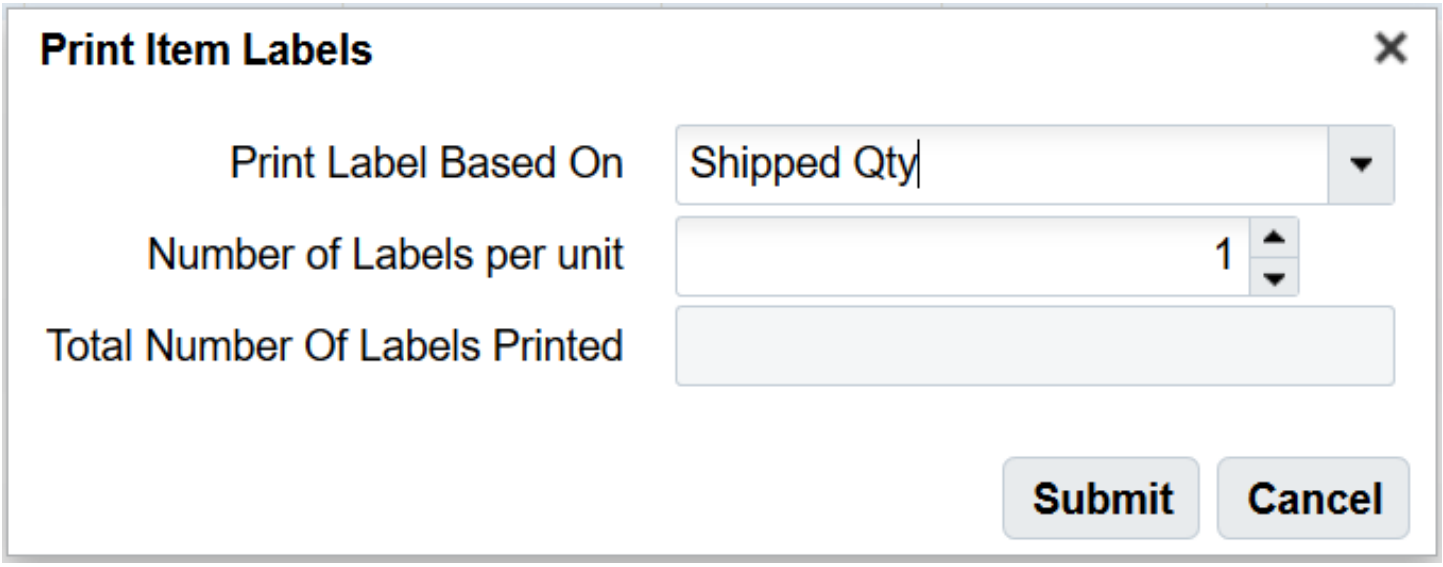


Facility Code	Company Code	Shipment Nbr	Status	Nbr LPNs	Shipped Qty	Received qty	Nbr Items
QA3PLEST	QA3PLGEO001	SHG100001196	In Transit	0	100	0	1
QA3PLEST	QA3PLGEO001	SHG100001192	In Transit	0	20	0	3
QA3PLEST	QA3PLGEO001	SHG100001191	In Transit	0	20	0	3

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.



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.

Print Labels Securely Using HTTPS Protocol

Printing labels can be done securely via the HTTPS secure encrypted protocol, without requiring VPN.

Note:

- Customers that want to use the HTTPS printing feature should use the CUPS print server on Linux. CUPS version 1.6.3, and above is recommended although older versions may work but are not supported.
- Other print servers that support the HTTPS protocol or printers themselves that support HTTPS directly may also work, but are not supported.

Print Labels for Locations Filtered in Locations UI

You can print labels for all locations that are filtered in the **Locations UI** via the “Print Label” action button by enabling the Group Permissions for the user(s). You can also print more than one label per location by providing the number of labels to be printed in the Print Label confirmation window.

To get the “Print Label” action button, do the following:

1. Go to Group Configurations and select your Group.
2. Click the Permissions action button.
3. Scroll to enable the checkbox for “location/ Can Print Location Labels”.
4. Now, go to the Locations UI and filter locations as per desired criteria.
5. Click the “Print Label” action button.

   A confirmation window pop-up will appear on the screen.
6. Here, the “Number of Locations” will be displayed as per your filter criteria. On the “Number of Copies” field, you can specify your desired number of label copies to be printed for all filtered locations.
7. Click on Submit to confirm the printing transaction.

Note:

Filtered locations printing will be done in the order selected by the user in the Locations UI. If no order is selected, the location barcode is used, by default.

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 mobile 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**.For additional details about using and configuring UOM in WMS, see *Configuring UOM* in the Implementation and Configuration Guide.

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 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" 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 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.

Infer UOM

Infer and Switch UOM Capabilities for Additional Mobile Transactions

The system currently supports the following key UOM capabilities in multiple mobile transactions:

- **Infer UOM from item barcode**: Infer UOM and pack/case quantity from a scanned item barcode.
- **Switch UOM**: Change UOM during a transaction using "Ctrl-K: Switch UOM" hotkey.

Transaction Name	Supported Functionalities in This Release
Mobile Summary Cycle Count (rf.inbound.cwrfccsummarycount)	• Infer UOM from item barcode

Transaction Name	Supported Functionalities in This Release
Mobile Pick and Allocate (rf.outbound.cwrfpickandallocateorder)	• Switch UOM
Mobile IB Sorting (rf.inbound.cwrfibsortlpn)	
Mobile Split IB Container (rf.inbound.cwrfsplitcntr)	• Switch UOM NoteInfer UOM from item barcode is already supported for Mobile Split IB Container transaction.

Infer UOM helps you to:

- Reduce manual UOM conversions.
- Speed up counting, picking, sorting, and split operations.
- Allow switching of UOM real-time also infer from a scanned item barcode, based on configuration.
- Reduce screen relaunches or switching between screens within the transaction flow.

INFER UOM FROM ITEM BARCODE

The following screen parameters upport inferring UOM from an item barcode:

- *infer-uom-from-item-barcode* to the **Mobile Pick and Allocate** and **Mobile Summary Cycle Count** transactions.
- *qty-uom* to the **Mobile IB Sorting** transaction.

infer-uom-from-item-barcode screen parameter behavior:

Parameter Value	Behavior
Blank or No	The system does not infer UOM from the scanned item barcode.By default, the parameter value is blank.
Yes	The system infers UOM from the scanned item barcode. When an item barcode is scanned, the system computes inventory quantity based on the pack or case quantity defined on the item barcode.

qty-uom screen parameter behavior:

Parameter Value	Behavior
Blank or Units	The system does not infer UOM from the scanned item barcode.By default, the parameter value is blank.
Packs	When an item or item barcode is scanned, the system retrieves the Pack Quantity from the scanned inventory and defaults it in the quantity field.
Cases	When an item or item barcode is scanned, the system retrieves the Case Quantity from the scanned inventory and defaults it in the quantity field.
Infer UOM from Item Barcode	The system infers UOM from the scanned item barcode. On item barcode scan, the system retrieves the UOM and pack or case quantity from the barcode as defined for the item barcode. On item scan, the system computes the inventory quantity based on the item's primary/facility UOM.

Note: For the Mobile IB Sorting transaction, this change does not apply when "sort-inventory-to" is set to "Pallet - Do not call Directed Putaway" or "Pallet - Call Directed Putaway", because the system moves LPN directly to a pallet.

When you perform the **Mobile Split IB Container** transaction, on the IHT-34 and IHT-35 records, the system now populates Ref Code 17/Ref Value 17 for UOM in which the Split IBLPN occurred and Ref Code 18/Ref Value 18 for the entered quantity.

SWITCH UOM

You can now switch UOM in the following mobile transactions:

- Mobile Summary Cycle Count
- Mobile Pick and Allocate
- Mobile Split IB Container
- Mobile IB Sorting

After scanning an item, use the "Ctrl-K: Switch UOM" hotkey to view and select available UOMs.

- If the scanned item's primary UOM is a system class UOM, the system displays only Units (primary UOM), Packs (pack UOM), and Cases (case UOM).
- If the scanned item's primary UOM is a non-system class UOM, the system displays all UOMs in the same UOM class as the item's primary UOM.

Note: The "Ctrl-K: Switch UOM" hotkey is available only when infer UOM from item barcode is disabled.

Steps to Enable and Configure

To enable infer UOM from item barcode, configure the following screen parameters:

- For the **Mobile IB Sorting** transaction, set *qty-uom* = Infer UOM from Item Barcode.
- For the **Mobile Pick and Allocate** and **Mobile Summary Cycle Count** transactions, set *infer-uom-from-item-barcode* = Yes.

Enhance Warehouse Efficiency with Item-Specific UOM Conversions

Item-Specific UOM Conversions allow receiving and storing inventories with one UOM class while fulfilling orders or handling corresponding billings in another UOM class. This functionality enables processing of purchase orders, inbound shipments, and sales orders using UOMs different from an item's primary UOM.

The system tracks inventory in the Primary UOM while allowing customers and external systems to interact with UOMs more relevant to their operations. The Item-Specific UOM Conversion UI defines conversion factors between the base UOM of the item's primary UOM class and the base UOM of the target UOM class.

UOM Conversion

An item-specific conversion record is interpreted as: **Target Base UOM = Conversion Factor × Item Primary Base UOM**

You can interface JSON, **Item-Specific UOM Conversion to** enable the creation of UOM conversion records using the following API:

```
POST .../wms/lgfapi/v10/stage/item_specific_uom_conversion/
```

Item-specific conversion records apply to individual items. If an item-specific conversion record already exists for an item, a new record with the same item, primary base UOM, and target base UOM combination cannot be created. Once a transaction occurs using an item-specific UOM conversion record (such as a purchase order, inbound shipment, or sales order), the conversion record cannot be deleted or modified.

The item-specific UOM conversion supports interfacing with purchase orders, inbound shipments, and sales orders.

Note:

- You can define conversion factors between base UOMs of different UOM classes. When defining a SKU's facility UOM, the conversion factor is automatically handled at the Base UOM level, eliminating the need for separate conversion definitions.
- In case of partial receipts or ASN updates, the shipped/ordered UOM quantity will be shown in proportion to the primary UOM. The conversion between primary UOM and ordered UOM ensures accurate quantity tracking post-receiving. Modifications in received LPN quantities will also update the corresponding IB Shipment.
- When interfacing a PO with a different UOM class than the item's primary UOM, ASNs can be automatically created (if CREATE_ASN_FOR_EACH_PO is set to "yes"). The ASN will inherit the shipped UOM as per the PO's ordered UOM.

Inbound Shipments

Inbound shipments can include expected quantities in the shipped UOM. The following fields are available in XML and PSV formats for inbound shipment verification:

- **shipped_uom**
- **shipped_uom_qty**
- **shipped_uom_received_qty** (calculated from primary UOM)

Example:

A conversion record is required between the Base UOM of the Primary UOM class and the Base UOM of the target UOM class for SKU01.

IB Shipment	Expected Quantity	Received Quantity	Primary UOM	SKU	Shipped UOM Quantity	Shipped UOM	Status
ASN01	250	0	Each	SKU01	5	Kgs	In-Transit

After Partial Receiving (200 Eaches received):

IB Shipment	Expected Quantity	Received Quantity	Primary UOM	SKU	Shipped UOM Quantity	Shipped UOM	Shipped UOM Received Quantity
ASN01	250	200	Each	SKU01	5	Kgs	4

Sales Orders and Shipping

Sales orders can be processed and tracked in the ordered UOM, even when it differs from the item's primary UOM.

Fields in XML, PSV, and JSON formats are available for OBLPN and Pallet shipping info:

- **ordered_uom**
- **ordered_uom_qty**
- **ordered_uom_shipped_qty** (calculated from primary UOM)

OBLPN Shipping Info (OLO) and Pallet Shipping Info (PLO) files reflect these fields.

The following are supported file format to enable the HOST to have the Interclass UOM:

- Container Shipped Load - LLS
- Outbound Load/Parcel - SLS
- ORDER_OUTBOUND_LOAD_EXPORT - PLS
- SHIPMENT_VERIFICATION - SVS

Updated/Modify Item-Specific UOM Conversions

To modify an existing UOM conversion:

1. Navigate to the **Item UOM Conversion** screen.
2. Select an item and update the necessary fields.
3. Click **Save** to confirm the changes.

Note:

- If no conversion exists and the ordered UOM belongs to a different class than the primary UOM, the system will fail the interface.
- Existing same-class UOM conversions remain unchanged.
- To Create Item-Specific UOM Conversion:
  a. Go to the **Item UOM Conversion** screen.
  b. Click **Create** and populate the necessary fields and
  c. Click Save to store the UOM.

Field	Description	Required
Item	Select the item for which the conversion is defined.	Yes
Target Base UOM	Specify the target base unit of measure.	Yes
Target UOM	Specify the target unit of measure.	Yes
Target UOM Class	Choose the appropriate UOM class.	No
Conversion Factor	Enter the conversion factor between UOMs.	Yes

Item Primary Base UOM	Displays the item's primary base unit of measure.	Yes
Item Primary UOM	Displays the item's primary unit of measure.	Yes
Item Primary UOM Class	Displays the item's primary UOM class.	No

Note: To proceed with creating an Item-Specific UOM Conversion, ensure the appropriate group permissions are set:

- **Item Specific UOM Conversion / Can Configure Item Specific UOM Conversion**
- **Item Specific UOM Conversion / Can Delete Item Specific UOM Conversion**
- **Item Specific UOM Conversion / Can Edit Item Specific UOM Conversion**

Without the necessary group permissions, attempts to process UOM conversions for purchase orders, inbound shipments, or sales orders will fail. Ensure the correct setup before initiating these transactions.

Introducing Item Specific Intra-Class UOM Conversions

With Item-Level Intra-class UOM (Unit of Measure) conversions, you can now set specific conversion factors for each SKU within the same UOM class. This means every item can have its own unique way of converting quantities, giving you more accuracy and flexibility in your warehouse operations.

This functionality build on the existing item-specific UOM framework, making it easier for warehouses to handle items that require different conversion rates within the same UOM class. You can now use these SKU-specific conversions in input and output interfaces, APIs, mobile transactions, and anywhere quantity calculations are needed. The system will apply the item-level conversion instead of the global conversion for more precise results.

Previously, only global conversion rules could be used, which sometimes required manual adjustments if you had items with different conversion needs. Now, with Item-Level Intra-class UOM conversions, Oracle WMS Cloud supports more accurate inventory tracking and more efficient operations—helping you reduce manual work and improve inventory accuracy.

Note: Intra-class conversion is evaluated first, before any global conversion. When no intra-class rule exists, the system falls back to global conversion.

How Intra-class UOM Conversion Logic Works

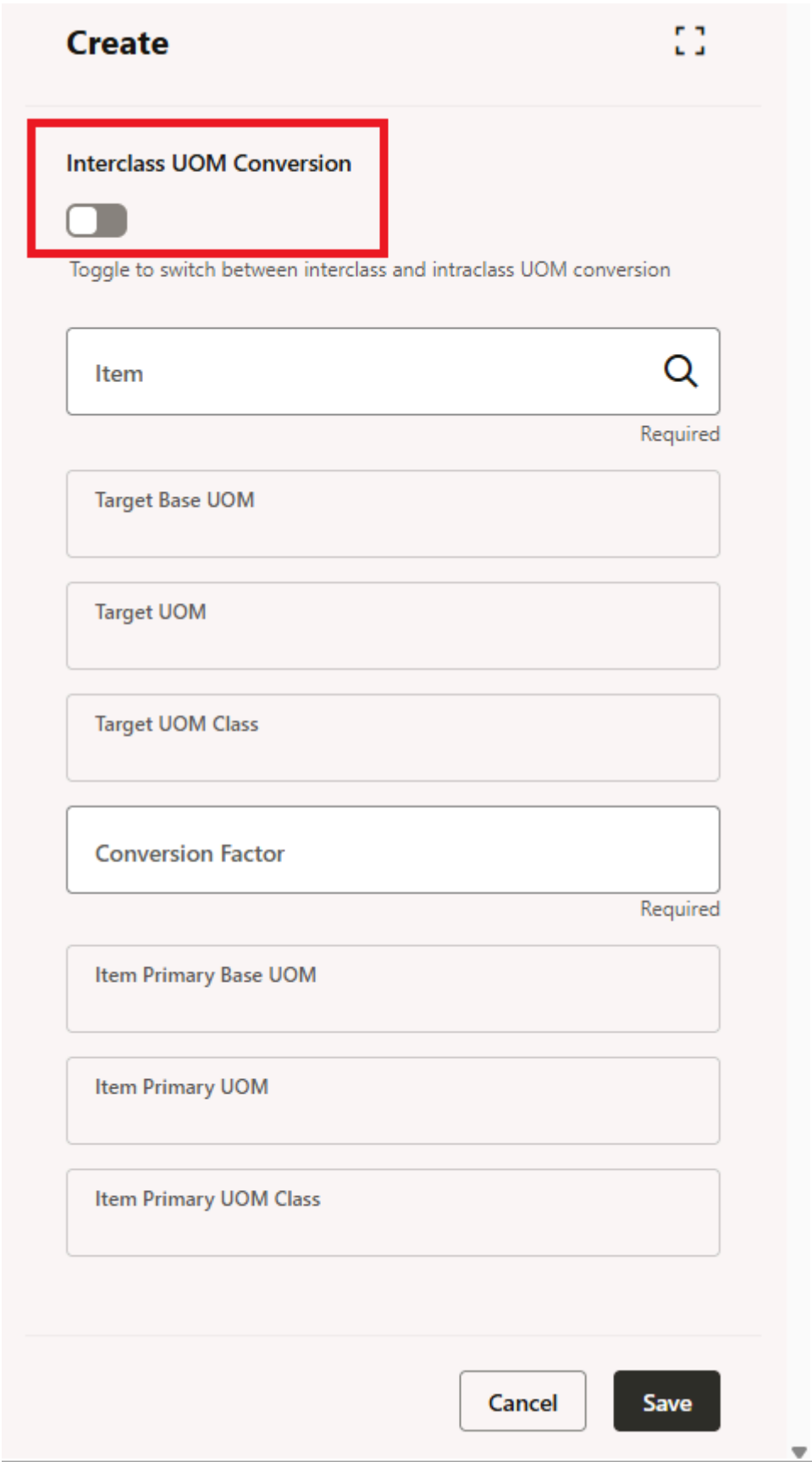
Intra-class UOM (Unit of Measure) conversion makes it easy to convert quantities between different units within the same UOM class for your inventory items. When using the Item Specific UOM Conversion page in the Redwood UI, you'll first see the standard mode where you can define inter-class conversions.

To set up an intra-class conversion, simply switch to the Intraclass UOM mode. This enables the fields specifically needed for defining intra-class conversions. In Intraclass UOM mode, you'll enter the Item, the Target UOM, and the Conversion Factor. The system automatically creates a unique conversion record for each combination of an item's Primary UOM and a Target UOM. Only one record is allowed for each item and UOM pair to ensure conversions stay consistent and free of conflicts.

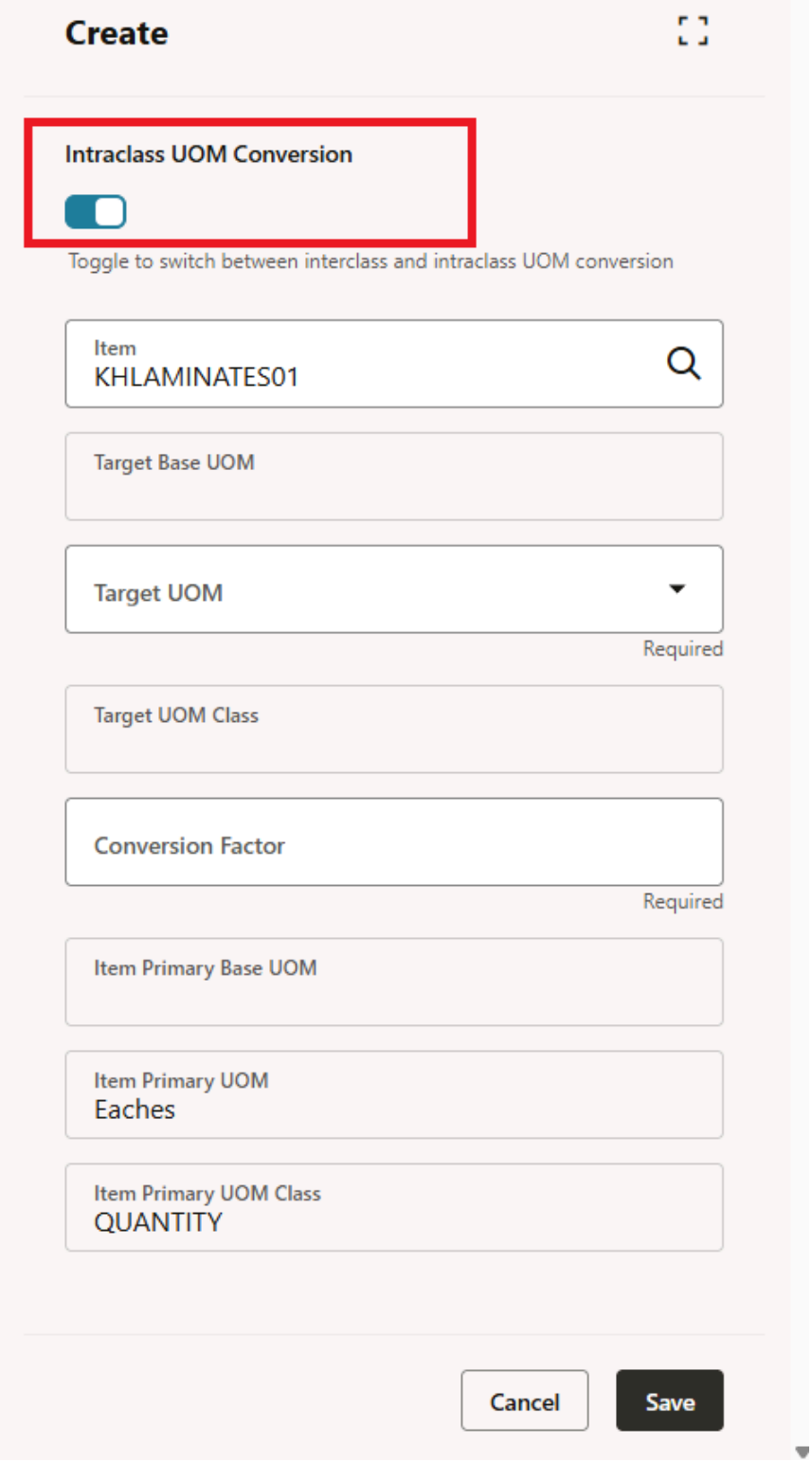
Note: After setup, the conversion is applied automatically during Inbound / Outbound and Inventory Operations.

Conversion Logic: 1 Target UOM = Conversion Factor x Primary UOM.

When you open the Item Specific Conversion screen, the system defaults to Inter-class mode. In this state, all Intra-class specific fields are disabled, and only standard inter-class fields are active.


Create
Interclass UOM Conversion
Toggle to switch between interclass and intraclass UOM conversion
Item
Required
Target Base UOM
Target UOM
Target UOM Class
Conversion Factor
Required
Item Primary Base UOM
Item Primary UOM
Item Primary UOM Class
Cancel
Save

When you switch the toggle to Intra-class UOM Conversion, the form transitions to Intra-class mode. The system auto-populates the item's Primary UOM and Primary UOM Class based on the Item selection. A user must then enter the Target UOM and Conversion Factor, based on the conversion formula: 1 Target UOM = Conversion Factor × Primary UOM.



Only one conversion record can exist per **Item + Primary UOM + Target UOM** combination, ensuring uniqueness and preventing duplicate or conflicting Intra-class conversion definitions for a single item.

Note: The intra-class UOM conversion is to provide more granular flexibility in case multiple definitions of the same UOM exists. However, the inventory tracking will always be done in terms on Primary UOM of an item.

SUPPORTED ITEM SPECIFIC INTRA-CIASS UOM

Item-specific intraclass UOM conversion is available only for unit of measures (UOMs) that are *not* used as a Pack or Case UOM for an item. This means you cannot define intraclass conversions if the item's barcode is set up as a Pack or Case UOM.

On legacy screens, intraclass conversion records are visible in read-only mode—they cannot be created, duplicated, or edited there, but you can still delete them. All creation and updates for intraclass UOM records should be done in the Redwood UI, specifically using the Item Specific UOM Conversion View screen.

INTRA-CLASS LOGIC & VALIDATIONS

To ensure accuracy and avoid conflicts, the following rules and validations are in place:

- Intraclass UOM does not support Pack or Case UOM for an item.
- Intraclass UOM can only be created or edited in Redwood UI (read-only on legacy screens).
- If a UOM is already used in intraclass conversions, it cannot be set as a Pack or Case UOM.
- If intraclass conversions exist for an item, you cannot update the item's primary UOM.
- For Infer UOM, intraclass conversions only apply if the barcode's UOM is *not* a Pack or Case UOM.

ITEM MASTER AND INTERFACE IMPACTS

Intraclass conversions are managed only in the Redwood Item Specific UOM Conversion UI.

Key Restrictions:

- **Pack/Case UOM Restriction:**
  If a UOM already has item-specific intraclass rules defined, the system will not allow you to assign it as the Pack or Case UOM for that item. *Error message:* "%uom used in Item specific conversion, cannot be used as package UOM."
- **Primary UOM Change Restriction:**
  If there is an intraclass conversion defined for an item, you cannot change the primary UOM. *Error message:* "Item in use. Cannot change primary UOM for item %s."

These same restrictions apply to integrations and interfaces. If you attempt such changes through the Item interface (for example, using stage tables), those records will fail with the same error messages. This consistency ensures proper item configuration and helps avoid conflicts in your warehouse operations.

Note: If Item Facility UOM is configured for an item, these settings take priority. All UOM records will be displayed at the Item Facility level. Conversions between the **Item Primary UOM** and **Item Facility UOM** typically use the **Global UOM Conversion**. However, if an intra-class UOM conversion is defined between these, the system uses the intra-class conversion for display and calculation—prioritizing it over the global rule, with quantities always shown at the Item Facility level.

INTRA-CLASS SUPPORT via INPUT INTERFACE

When creating ASNs, POs, Planned Loads, Orders, Work Orders, or Movement Requests in WMS, the system always converted the incoming UOM to the item's primary UOM using the global conversion factor.

With intraclass UOM conversion, if a specific conversion is set between the item's primary UOM and the incoming (interfaced) UOM, the system will now use the intraclass conversion instead of the global one.

How It Works During Interface Processing:

- The system first checks for an intraclass conversion between the item's primary UOM and the interfaced UOM.
- If an intraclass conversion exists, it applies that conversion.
- If none exists, the system falls back to the standard/global UOM conversion.

This supports greater accuracy and efficiency throughout your inventory and order management processes.

Example: IB Shipment / Purchase Order

Intra-class conversion for SKU01:

SKU	Primary UOM	Target UOM	Conversion Factor	Comments
SKU01	Each	Box	24	1 Box Equals to 24 Each

User interfaces **ASN01 with 5 Boxes .**

Primary UOM = Each.

Global conversion = 1 Box = 12 Each.

Since Intra-class exists: **5 × 24 = 120 Each**

ASN	Shipped/PO Quantity	UOM	SKU
ASN01	120 (24x5)	Each	SKU01

If Intra-class was not defined, qty would be **60 (12 × 5) .**

Example: Sales Order

Intra-class conversion for SKU01:

SKU	Primary UOM	Target UOM	Conversion Factor	Comments
SKU01	Pieces	Barrel	300	1 Barrel equals to 300 Each

User interfaces **ORD01 with 5 Barrels .**

Primary UOM = Each.

Global conversion = 1 Barrel = 200 Each.

Since Intra-class exists: **5 × 300 = 1500 Each**

Ord	Ordered Qty	UOM	SKU
ORD01	1500 (300 × 5)	Pieces	SKU01

If Intra-class was not defined, the quantity would be **1000 (200 × 5)**.

API SUPPORT - INTRACLASS UOMS

APIs may get quantities in different units of measure, depending on how suppliers or their systems send the data. To keep inventory records correct, the system now checks for **item-specific intraclass UOM conversions** for each API input. If there is a conversion rule set up for the item, the system will automatically change the quantity from the incoming UOM to the item's Primary UOM. This improvement makes sure that quantity calculations are correct, even if the same unit of measure means different actual amounts for different items. This applies to these documents received through APIs:

- Purchase Order
- Sales Order
- Movement Request
- Planned Load
- Manufacturing API
- Receive LPN: The system uses item-based **intraclass** UOM conversion rules when receiving LPNs through the API.
- Cycle Count: The From MHE Cycle Count Info API also uses item-specific intraclass UOM conversions to calculate the counted quantities.

IMPACTS ON OUTPUT INTERFACE

In the Outbound Interface, the system now changes quantities from the Primary UOM back to the UOM that was sent by the customer, using the intraclass UOM conversion. This allows external systems to see the quantities in the same units they used when sending the data.

This update applies to all formats of these interfaces:

- Inbound Shipment Verifications Export
- Container Outbound Load Export (LLS)
- Order Outbound Load Export (PLS)
- Outbound Loads Export (SLS)
- OBLPN Shipping Info (OLI)
- Pallet Shipping Info (PLO)

IMPACTS ON RECEIVING

Now the receiving process supports **item-specific intraclass UOM conversions** whenever you receive inventory in an **Ordered UOM**.

If a conversion rule exists for the ordered UOM, the system will use it to convert the quantity to the item's **Primary UOM**.

If there isn't an item-specific rule, the system will use the **Global UOM conversion** automatically.

This helps you receive items in the packaging provided by your supplier (such as box, bundle, or crate) and still keep an accurate count in the **item's Primary UOM** without any manual work.

HOW IT WORKS DURING RECEIVING:

- You receive items in the **Ordered UOM or any UOM different from the item's Primary UOM.**
- The system looks for an **item-specific intraclass UOM conversion** between the received UOM and the Primary UOM.
- If a conversion is found, the system uses it to convert the quantity to the Primary UOM.
- If no conversion is found, the system uses the **global conversion factor** instead.
- Inventory is always updated in the **Primary UOM**.

Example: IB Shipment Receiving using Intraclass

SKU	Primary UOM	Target UOM	Conversion factor	Comments
SKU01	Each	Box	24	1 Box equals 24 Eaches

The ASN is created for **50 Boxes of SKU01**.

A global conversion also exists: **1 Box = 12 Eaches**.

ASN is created

ASN	Shipped Qty (Primary)	Shipped UOM Qty	SKU
ASN-01	1200 Each (50x24)	50 Box	SKU01

During RF receiving, the user receives **15 Boxes**.

What system does

- Checks for **item-specific conversion first** > 1 Box = 24 Each
- Converts 15 Boxes > **15 × 24 = 360 Each**
- Updates shipment and inventory in **Each**, and displays quantity in **Box**

OTHER TRANSACTIONS WHERE Intra-class IS SUPPORTED

SWITCH UOM: CTRL+K

The SWITCH UOM checks **item-specific intraclass UOM conversion rules** whenever you change the UOM context using **CTRL + K** or when the UOM is inferred from an item barcode. If the system finds a matching intraclass conversion, it applies that conversion. If not, it uses the **global UOM conversion** instead.

INFER UOM

The INFER UOM feature applies when the system needs to determine the UOM from a vendor item barcode and when you have configured a transaction to infer the UOM from item barcodes.

How Infer UOM Works:

- When you enable Infer UOM from Item Barcode and scan a vendor barcode, the system checks intraclass UOM conversions only for non-package UOMs during cycle count.
- For Pack and Case UOMs, the system never infers the UOM. It always uses the exact UOM defined in the barcode, even if intraclass conversions exist.

> **Note:** If an Item has both Item Facility UOM defined and an Intra-class UOM conversion configured, the system does not support weight and volume calculations based on the Intra-class definitions in release 25B.

ITEM SPECIFIC UOM CONVERSION: CALCULATION SUPPORT

A **"Calculate interface qty"** action button available in the **Item Specific UOM Conversion – Redwood UI** lets you to quickly calculate how a quantity in a **target UOM** converts to the **primary UOM**, using the selected item-specific UOM conversion record.

HOW IT WORKS

When you select an item-specific UOM conversion record and clicks **"UOM Quantity Calculator"**, a calculator form opens showing:

UOM Quantity Calculator

Field	Description	What You Should Enter
Conversion Type	Shows the type of UOM conversion being applied.	Auto-populated — no input required.
Alternate Item Codes	Displays the item code selected for UOM conversion.	Auto-populated — no input required.
From-UOM	The Unit of Measure of the quantity you want to convert from.	Select the UOM you currently have.
Qty in From-UOM	Quantity value in the selected From-UOM.	Enter the numeric quantity that needs to be converted.
To-UOM	The Unit of Measure you want to convert to.	Select the UOM you need the result in.

The **Target UOM dropdown** adjusts based on the selected conversion type:

- **Interclass conversion** > shows all target-base UOMs
- **Intra-class conversion** > shows only the defined target UOM

As you enter the **target-UOM quantity**, the system computes and displays the equivalent To-UOM quantity in real time.

Note:

- No extra permissions are required; the action button is available to all roles.
- The calculator is available **only in the Redwood UI**.
- The calculated values are **not stored** and are intended purely for user validation.
- The To-UOM shows all the UOMs from the item's primary UOM class

Item-Specific UOM Conversions Across Interfaces

Item-Specific UOM Conversions allow receiving and storing inventory using one unit of measure (UOM) class while fulfilling orders or managing billing with a different UOM class. This supports accurate processing of purchase orders, inbound shipments, sales orders, work orders, and movement requests, even when the involved UOMs differ from the item's primary UOM class.

The system tracks inventory in the Primary UOM while enabling external systems and customers to use UOMs more relevant to their operations.

Interface for Creating Item-Specific UOM Conversions

You can use the following API to define conversion records between UOM classes:

```
POST .../wms/lgfapi/v10/stage/item_specific_uom_conversion /
```

For more information, please refer to Interface spec file - *Oracle WMS Cloud Information Center* > **Documentation** tab > click the link under **Current Documentation** > refer to the **WMS Interface Specifications** document

Each record defines a conversion between an item's primary base UOM and a target base UOM from another class.

Input Interface Support

- **Work Order and Planned Load Interfaces**

- Support UOMs from different classes.
- The system applies item-specific UOM conversions when available.
- If no item-specific conversion exists, the system defaults to standard conversions within the same UOM class.
- If no valid conversion is available, the interface transaction fails.

- **Movement Request Interface**

- Supports processing with UOMs from different classes.
- Two additional fields are available in the Movement Request Detail screen:

Field	Description
`ordered_uom`	UOM in which the order was placed
`ordered_uom_qty`	Quantity as per the ordered UOM

These fields help track movement requests accurately when ordered in a different UOM class.

Output Interface Support

- **OBLPN and Pallet Shipping Info Files**

The system includes the following fields in XML, PSV, and JSON formats:

Field	Description
`ordered_uom`	Ordered unit of measure
`ordered_uom_qty`	Ordered quantity in the specified UOM
`ordered_uom_alloc_qty`	Allocated quantity in the ordered UOM
`ordered_uom_packed_qty`	Packed quantity in the ordered UOM

Additional JSON Fields

- `curr_qty_in_ordered_uom`: Current inventory quantity in the ordered UOM (Inventory List)
- `ordered_uom_code`: Code for the ordered UOM
- `shipped_qty_in_ordered_uom`: Quantity shipped in the ordered UOM (Order Detail List)

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 carrys a prepack code, which is a separate record that represents a group of child SKUs. For example, WMS could use a combination of different Polo's that come in a prepack into a single 'Prepack' SKU record.
- **Host Aware Item Flag:** Used in Prepack scenarios in determining whether or not the Host is aware of the Prepack item.

  > **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 pormotions) 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 thes 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.
    - If a file fails for some reason, it is automatically moved into the “error” folder.

Alternate Barcodes

The *Item Barcode* 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:**Setting the value to yes only allows the item barcode to be scanned on item entry fields. If an alternate code is scanned, it cannot be used to identify the item and will result in an ITEM_DOES_NOT_EXIST error.
- If **ITEM_BARCODE_SKIP_ALT_CODE_CHECK** is set to **no:** Setting the value to no (which is the default) allows the alternate barcode to be scanned on item entry fields. This means that either the item barcode or the item alternate code is used to identify and validate the item entered for the item entry field.

  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.

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 “Item Barcode” 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 system 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 mobile receiving option.

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.

Location Type	Description
Dock	Used to assign to loads during receiving/shipping.
Pack and Hold	Used for temporarily storing OBLPNs before shipping.
Yard	Used to locate trailer.
Packing Station	Used for packing LPNs with the 'Packout' RF option.
Drop	Used to hold both inbound and outbound LPNs while in between warehouse processes. You can configure the picking task to target a specific drop zone.
QC	Used to perform QC on LPNs during receiving.
Reserve	Used for designating reserve locations. Reserve locations store bulk inventory in all UOMs (LPN, Cases, Packs, and Units).
Staging Location	Used in the outbound process to consolidate OBLPNs based on a configured criteria.
Receiving Station	Used for inbound sorting functionality for LPNs.
VAS	Used to perform VAS on units during receiving/shipping.
Shipping Location	Used for shipping LPNs individually; if LPNs are located to a "Shipping Location", its status is automatically updated to status "shipped".

Additional warehouse Location Type identifiers are defined below:

Identifier	Description
Facility	Facility ID for location is part of.
Type	Add drop-down options
Dedicated Company	Used to assign a company to the location.
Location Size Type	Used in putaway for defining the Putaway Priorities.
Alloc zone	Refers to the Location's allocation zone. This is a free-form field used to group locations that must be allocated separately. The 'alloc zone' field is used in "Allocation Mode" (Wave Template) and "Replenishment Rules" (Replenishment Template) for specific UOMs. By specifying an allocation zone, you can configure WMS to allocate inventory by zones.
Item	If Location applies to an item.
Area/Aisle/Bay/Level/Position/Bin:	Used to describe the specific warehouse location.
Pick Sequence	Alphanumeric value that is used to determine the pick sequence between locations. **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. **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 10.

Identifier	Description
Barcode	The location's barcode.
Length/Width/Height	Refers to the location's dimensions. These values are considered during two different processes: During Putaway logic if using the Putaway Search Mode "Most Empty by Volume" or "Least Empty by Volume"; As a trigger for Replenishment if using Replenishment Mode "Percentage of Max".
Min/Max Units	Refers to the min/max units of inventory allowed in the location at a time.
Max LPNs	Maxinum 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	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. 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". **Note:** The system is not currently handling the **Allow reserve partial pick** flag during replenishments.
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.

Identifier	Description
	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.
Assembly Flag	If checked, flags a location where inventory is brought to to be assembled into a different SKU. **Note:** The assembly flag needs to be enabled for work order processing in WMS. In order to avoid confusion between work order processing locations and picking locations the replenishments will not consider the assembly locations in normal replenishment. In Work order waves, only assembly locations will be considered.
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.

Allow Co-Mingling of Specific Item Attributes

You can now combine multiple inventories of the same SKU for “Restrict Inventory Attribute” enabled Locations using the field **“Ignore Attribute Values For Restrict Inventory Attribute”**.

To specify the attributes that you want to ignore, do the following:

1. Go to the **Locations** UI and enable the checkbox “Restrict Inventory Attribute” for desired Location.

2. Click the “Ignore Attribute Values For Restrict Inventory Attribute” field.
   Here, a dropdown will be displayed for Attributes A to O.
3. Select the item attributes that you want to ignore. Here, the system allows inventories to be mixed.

> **Note:** You can also make use of this functionality for mass updates on the Locations UI by following the steps here: *Update Multiple Locations using Mass Updates - Location button*.

Update Multiple Locations using Mass Updates - Location button

You can perform simultaneous bulk updates for your desired Location records using the Mass Update – Locations button on the **Locations** UI.

To perform the bulk operations, do the following:

1. Go to **Locations** UI.
2. Select the record(s) that you’d like to update simultaneously as a group. You can also select a single record to update multiple fields/columns.
3. Click the **Mass Update – Location** action button.
   Here, you are prompted for confirmation to proceed with mass updates for the selected records.
4. Click "OK" to select the fields/columns you’d like to update by enabling their respective checkboxes.
5. Now, you can input the new value to be updated by typing in the field entry, or, by selecting from the list of options via the drop-down, whichever is applicable.
6. Click "Submit". The system displays a validation status message.
7. Lastly, click "OK" to reflect the changes.

> **Note:**
> - If you enable a check box against a field but do not enter any value in "Enter New Value" column while submitting, it will nullify the field and erase old value from the location record.
> - If there is no value entered in "Enter New Value" and the check box was not enabled to nullify the old values, mass updates will not be applied.

Inventory Screens

You can use the following screens to view the available inventory in the warehouse:

- Active Inventory
- Reserve Inventory
- IBLPNs
- Inventory Summary

Active Inventory

The Active Inventory UI offers detailed, real-time inventory information for active locations, filtering records based on location and item.

Update Quantities for Active Locations

To handle various scenarios such as unexpected stock changes or order modifications, you can change the inventory current quantity on the **Active Inventory (ActiveInventoryView)** UI.

To update the current quantity, do the following:

1. Go to **Active Inventory** UI.
2. Select an inventory record and click **Modify Qty** action button.
3. In the "Modify Qty" pop-up, enter the updated current quantity and select a **Reason Code**.

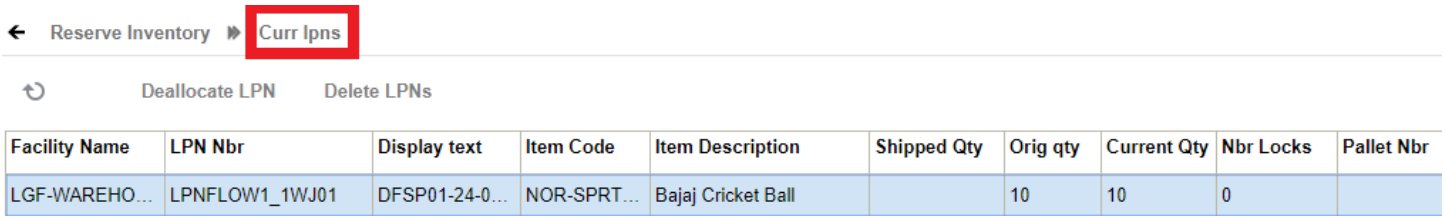
   Note:
   - You can update the current quantity for a location, even with existing allocations (fully or partly allocated inventories).
   - You can increase or decrease the current quantity as long as the new quantity is more than or equal to the allocated quantity. If you enter the quantity that is lower than the allocated quantity, the system displays an error message.
4. Click **Submit**.

The following table summarizes the behavior when modifying current quantity for the allocated inventory records:

Location	SKU	Current Quantity	Allocated Quantity	New Quantity	Behavior
LOC001	ABC	100	50	45	The system displays an error message.
LOC001	ABC	100	50	50	The system proceeds with the update.
LOC001	ABC	100	100	105	The system proceeds with the update.
LOC001	ABC	100	0	0	The system proceeds with the update.

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.



Group Reserve Inventory by Priority Date

The system allows you to group the Reserve Inventory records based on the Priority Date value by adding the priority date column to the data grid on the **Reserve Inventory** UI.

> **Note:** By default, the Priority Date field is not added to the data grid of the **Reserve Inventory** UI. So, the system displays Reserve Inventory records without considering the priority date for grouping.

To group Reserve Inventory records based on priority date, do the following:

1. Go to the **Reserve Inventory** UI.
2. Click (+) button, to view the list of columns on the **Reserve Inventory** UI.
3. Select the "Priority Date" check box to add the Priority Date column to the data grid.

   > **Note:** Similarly, you can revert the behavior by unchecking the "Priority Date" check box.

For example, let's say a Reserve Location has two LPNs with the same SKU and different priority dates (as mentioned below).

- Inbound LPN LPN 1 with SKU-1 having priority date as 20-10-2022 with a quantity of 10 units.
- Inbound LPN LPN 2 with SKU-1 having priority date as 22-10-2022 with a quantity of 10 units.

Following are the possible outcomes with/without considering the priority date:

If Priority Date is added to the data grid:

The system displays multiple records.

Location	SKU	Quantity	Current LPNs	Priority Dat
Location-1	SKU-1	10	1	20-10-2022
Location-1	SKU-1	10	1	22-10-2022

If Priority Date is not added to the data grid (default behavior):

Location	SKU	Quantity	Current LPNs
Location-1	SKU-1	20	2

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	*num-days-iblpnlost-for-consume*	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 "inventory / can edit inventory" to the relevant group to enablethe Consume LPN button. Once enabled, you can select from multiple optionsfor LPNs.

Upon selecting LPNs:

1. Click **Consume LPN.** The system displays a message box with the following details:

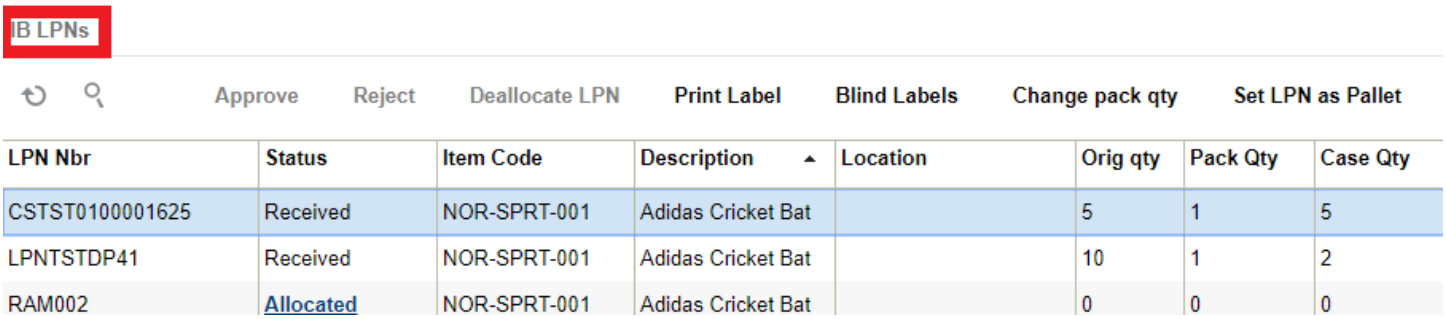
- "Number of LPNs Selected for Consume "X". X¿>Denoting number of LPNs.
- Text field to enter the *number days* since Lost for Consumption. Value entered here is used to validate if selected Lost Status LPNs is eligible for consumption or not.
- Drop-down to select the reason code. Reason Code selected 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 "inventory / can edit inventory"

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.



Action Button	Description
Accept	If the LPN is Marked for quality control, you can accept it here.
Reject	If the LPN is Marked for quality control, you can reject it here.
Deallocate LPN	If the LPN is allocated, you can deallocate here.
Print Label	This button prints the LPN label according to the label template set up in Label Template View (label type IB Container)
Blind Labels	Allows you to print blind labels by selecting the number of labels, Label type (either IBLPN, OBLPN or Pallet), Destination company, and Destination facility.
Change Pack QTY	Allows you to change the pack quantity of the selected IBLPN.
Set LPN as Pallet	Allows you to Set LPN as Pallet.
Unset LPN as Pallet	Allows you to unset LPN as pallet.
Modify Qty	Allows you to modify the LPN quantity, and you must provide a reason code. You can update current quantity of partly allocated IBLPNs, provided it does not fall below the currently allocated quantity.
Locate LPN	Locates the LPN. If the flag capacity check is enable, the system will make sure that the LPN fits the location according to max volume, max units, and max weight.
Generate MHE Distribution Msg	It generates the TO_MHE_DISTRIBUTION_INFO message.
Generate MHE IB LPN Info Msg	It generates the TO_MHE_IBLPN_INFO message.
Mass Update Attributes	Allows you to do a mass update for Inventory attributes A-O and Putaway Type. Updates all the records shown in the page, so it's a good idea to limit your search. It will first tell you the number of records that will be updated.
Print UOM Label	Allows you to print a UOM Casel label or UOM Pack label fo the LPN selected.
Update LPN Type	Allows you to update the LPN type of the selected LPN.

Editing Batch Numbers

Currently, Oracle WMS Cloud provides an option from the IB LPN Inquiry screen to update batch numbers for batch tracking items. Some warehouse managers may want the option to prevent batch number edits for certain users based on screen parameter settings.

The allow_edit_batch_nbr screen parameter in the IB LPN Inquiry screen allows you to prevent editing the batch number of an inventory.

Parameter Choice Behavior

- When the allow_edit_batch_nbr parameter is set to yes, the batch number field in the edit screen in the IBLPN inquiry will be editable and you can edit the batch number and save.
- When the parameter is set to no, you can edit the batch number field in the edit screen in IBLPN inquiry. However, when you Save the edited batch number, the system will throw the error "Cannot change batch number".

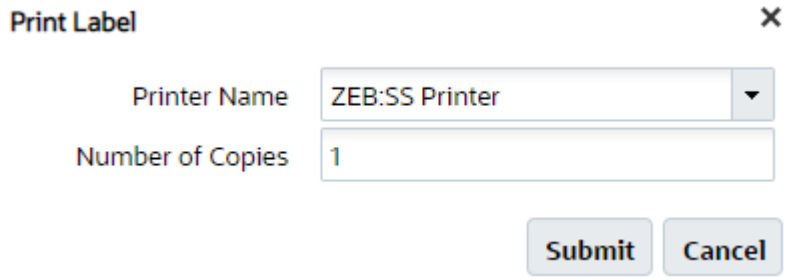
UI Screen Parameter Name	Options	Behavior
allow_edit_batch_nbr	• yes •	• User can edit batch number and save.
	• no	• Batch number field is editable and once you save, the system throws error “Cannot change batch number.”

Printing Labels in the IBLPNs UI

You can distinguish and change printers depending on warehouse location and activity.

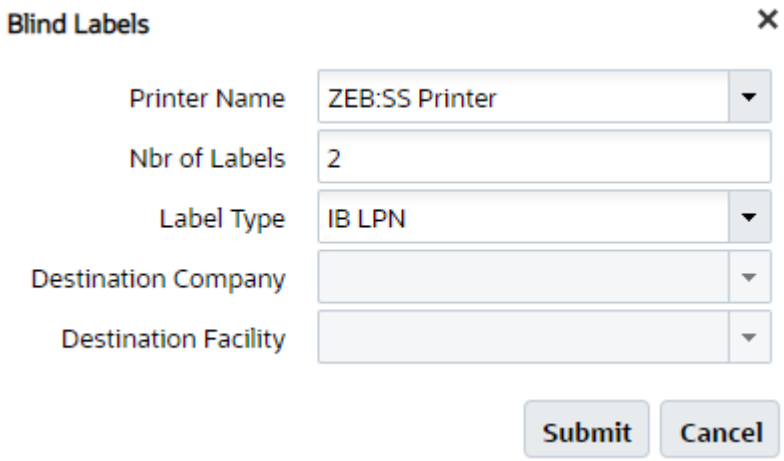
1. After you select the IBLPN record, click the Print Label action button in the IBLPN Inquiry UI > Select the printer from the Printer Name drop-down.

2. Enter the number of copies (labels) you would like to print per LPN and click Submit.



- 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:



View Consolidated Inventory in Item Inventory by LPN UI

The Item Inventory by LPN UI displays a consolidated view of all the LPN inventory (inbound and outbound).

> **Note:** The IBLPN Inventory and OBLPN Inventory UIs are deprecated and removed from the menu configuration. These UIs are replaced by the Item Inventory by LPN UI.

LPN Inquiry

Using the **Mobile LPN Inquiry (rf.inbound.cwrflpninquiry)** screen, you can search an LPN (Inbound or Outbound) to fetch the details such as LPN status, LPN's current location, received shipment details (for IBLPN), ship-to facility or ship to name details (for OBLPN), lock count, pallet number, inventory lines, and so on.

To configure and perform **Mobile LPN Inquiry**, do the following:

1. Configure a **Mobile LPN Inquiry (rf.inbound.cwrflpninquiry)** screen.

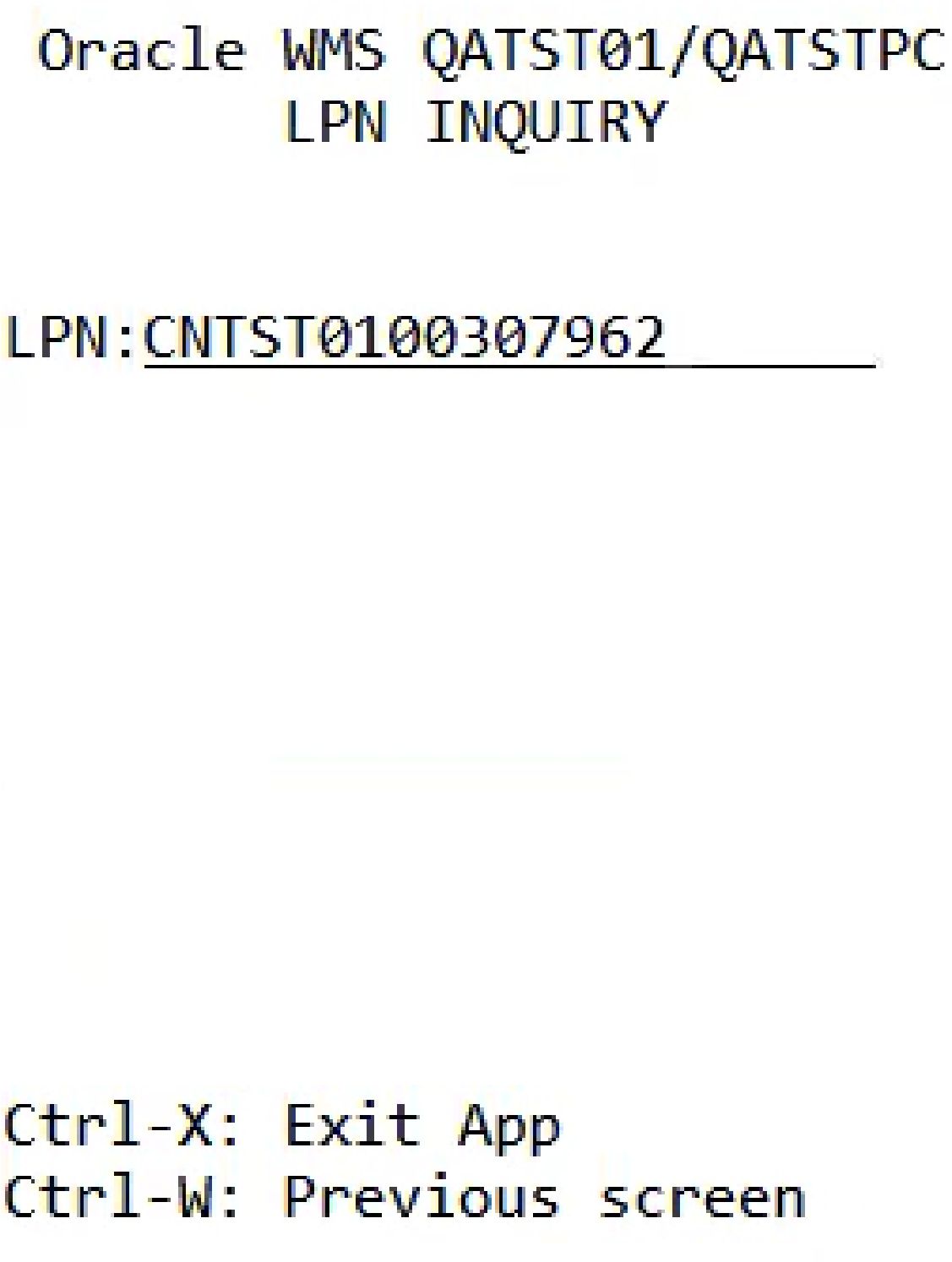
   Note: For more details on configuring a screen, refer *Configuring Menus for Users* section in the online help.

2. While configuring the screen, select and configure the screen parameters based on your requirement. As per the parameter configuration, the **Mobile LPN Inquiry** screen displays multiple details of scanned LPN.

   Note: For more details on the behavior of **Mobile LPN Inquiry** screen parameters, see the Mobile Screen Parameters document. To access the latest Mobile 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**.

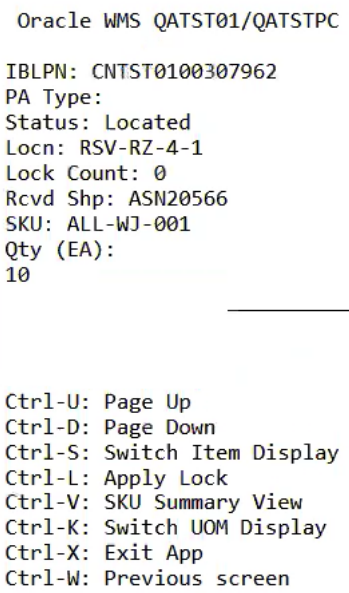
1. Go to the **Mobile LPN Inquiry** screen.

2. Enter or scan an LPN or Container Number.



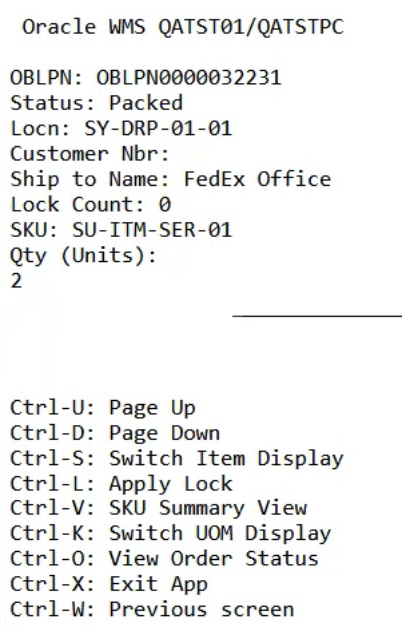
Based on the screen parameter configuration, the system displays multiple details of LPN. The details vary for IBLPN and OBLPN.

- If you scan an IBLPN, the system displays the following details.
  - Putaway Type
  - Container Status
  - LPN's current location
  - Lock code count
  - Received Shipment Number
  - SKUs that are part of LPN
  - SKU's quantity along with UOM
  - SKU's inventory attributes, expiry date, or batch number (if SKU is tracking these and the screen parameters are configured to display these)



> **Note:** If the scanned LPN is a multi-SKU LPN, hit "Ctrl+D" hot key to view the remaining inventory line (SKU) details.

- If you scan an OBLPN, the system displays the following details.
  - Container Status
  - LPN's current location
  - Ship-To Facility code (for facility order or store order)
  - Customer Number (for customer order)
  - Ship to Name (for customer order)
  - Lock code count
  - Pallet Number
  - SKUs that are part of LPN
  - SKU's quantity along with UOM
  - SKU's inventory attributes, expiry date, or batch number (if SKU is tracking these and screen parameters are configured to display these)



Note: While inquiring an LPN, the system displays inventory lines with Current Quantity = 0 in any Container Status, because of the following reasons:

- To keep the historical track of LPN inventory lines that are modified to Cancelled/Consumed status with current quantity = 0.
- OBLPNs in “Outbound Created” status may have in-transit quantities with current quantity = 0.

The following table describes the behavior of hot keys on the **Mobile LPN Inquiry** screen.

Hot key	Behavior
Ctrl – U: Page UP	Navigates you to previous page of LPN details.
Ctrl – D: Page Down	Navigates you to next page of LPN details.
Ctrl – S: Switch Item Display	Switches the item field display as per screen parameter “item-field-display” configuration.
Ctrl – L: Apply Lock	Navigates you to Lock/Unlock screen for the inquired LPN. (if a valid Lock/Unlock LPN screen is configured in screen parameter “lock-unlock-lpn-screen”)
Ctrl – V: SKU Summary View	Displays SKU details.
Ctrl – K: Switch UOM Display	Navigates you to change UOM.
Ctrl – O: View Order Status	Displays the LPN’s order and order status. (only for OBLPN Inquiry)
Ctrl – X: Exit App	Navigates you to the Mobile main menu.
Ctrl – W: Previous Screen	Navigates you to previous screen.

You can print the labels directly from the Mobile LPN Inquiry and Mobile Pallet Inquiry screens improving operational efficiency for warehouse users. Refer to section**Print Labels from Mobile LPN Inquiry and Mobile Pallet Inquiry**

in *Printing LPN Labels*.

Reconcile Consumed/Cancelled LPN Quantity

Reconcile Consumed or Cancelled LPN Quantity functionality removes any inconsistencies involved in the LPN Quantities with the use of action button '**Reconcile LPN Quantity'** in the **LPN Inquiry** UI (IBLPN Inquiry and OBLPN Inquiry.)

This button allows you to do the following:

- Select multiple records and adjust LPNs in consumed or cancelled status that have a quantity greater than zero.
- Zero out the quantity of an LPN in order to accurately sync inventory data to ERP or reporting systems.

Once you enable the Reconcile LPN Quantity and edit inventory permissions from the **Group Configuration** UI, you will see the Reconcile LPN Quantity button available in the **LPN Inquiry** UI (upon selecting an LPN in 'consumed' or 'cancelled' status).

You can enable the Reconcile LPN Quantity button from the **Group Configuration** UI > Permissions > Enable 'container/ Reconcile LPN Quantity' and 'inventory/Can edit inventory'.

> **Note:** When you use the Reconcile LPN Quantity option, you will be prompted to re-enter your password. You will then be able to adjust LPN quantities. Keyed log entries will be written for each LPN that is corrected.

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.

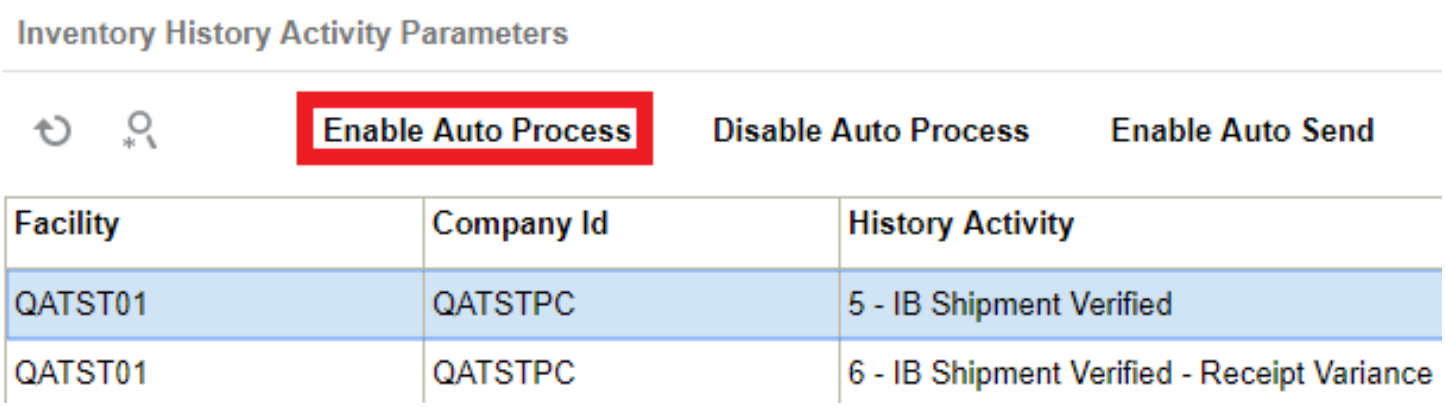
For more information about the Iventory History UI fields, see the Interface Specifications document.

> **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

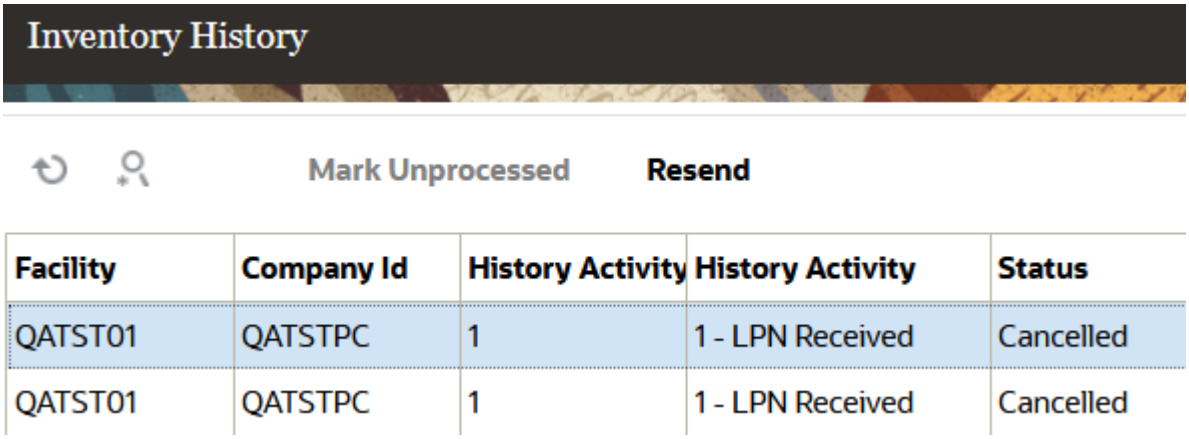
To help customize your view of inventory history records, from the **Inventory History Activity Parameters UI** you can click the **Enable Auto Process** or **Disable Auto Process** buttons.



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 **Cancelled** in the **Inventory History UI**.



- The Scheduled Job "Extract Inventory History" does not extract cancelled records.

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 forthe 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 tim 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

IHT Activity to Cancel a Work Order

If you cancel a work order or the kits from the **Input Interface**, **Work Order Inquiry View** UI, **Work Order Kit View** (at Kit level) or from the **Mobile Work Order Kit Processing** screen, the system records an IHT activity “82-Work Order Cancellation”.

The cancellation of the work order occurs at an individual kit level.

For example, if a work order contains 3 kits and you cancel 2 of them, then 2 IHT activity records (82-Work Order Cancellation) are generated on the **Inventory History** screen. Similarly, if you cancel a work order containing 3 kits, then the system generates 3 IHT activity records (82-Work Order Cancellation) on the **Inventory History** screen.

By default, the Auto Process flag is enabled on the **Inventory History Activity Parameters** screen for all IHT activity records. So, the work order entries are marked as processed and those entries are not considered for the next cycle.

IHT Activity to Unload a Container

If an OBLPN gets unloaded, the corresponding details are recorded on the Inventory History screen with “83 - Container Unloaded” IHT activity.

To generate IHT activity “83 - Container Unloaded” records for each serial number, do the following:

1. Go to the **Inventory History Activity Parameters** UI.
2. Select the **83 - Container Unloaded** record.
3. Click the **Edit** icon.
4. Select the “Enable split by serial nbr flag” checkbox and click **Save**.

> **Note:** By default, the Enable split by serial number flag is un-checked on the **Inventory History Activity Parameters** screen.

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.

Configure Reason Code for RF Change LPN SKU Transactions

When you are managing inventory via Mobile **Change LPN SKU** (rf.inbound.cwrfchangeskulpn) transaction, the system captures the reason code. The reason code information mentioned within the **Change LPN SKU** is recorded in the “IHT- 17 Inventory Adjusted post verification” Inventory History Transaction.

To configure the system to capture Reason Codes in the Mobile **Change LPN SKU** , do the following:

1. Go to the **Mobile Change LPN SKU** (rf.inbound.cwrfchangeskulpn) module.
2. Configure the “prompt-for-reason-code” parameter to “Yes”.
   This enables the system to prompt for a reason code while performing the **Change LPN SKU**.

   > **Note:** By default, the “prompt-for-reason-code” is set as a blank. If the “prompt-for-reason-code” is set as a blank or “No”, the system will not prompt for a reason code.
3. To auto populate a reason code in the IHT -17, set the “default-reason-code” parameter with a valid reason code value.

Note: If“default-reason-code” parameter is not configured, then the system behavior is as follows:

prompt-for-reason-code parameter is set to Yes/No	**IHT-17 record**
Yes	If you add a reason code in the RF **Change LPN SKU** transaction’s reason code prompt, then the system generates the IHT-17 record with the input reason code.
No	IHT-17 record doesn’t populate a reason code.

Enable/Disable Reason Codes

There are instances where all the reason codes configured in the Reason Code screen may not be used, so the user will need the ability to enable/disable the reason codes that are being used or not used, so that the list of reason codes will have codes which are currently in use.

In some cases, not all the reason codes configured in the Reason Code screen are needed. You may now enable the codes you use while disabling those you do not. This ensures that users only see a list of reason codes that are relevant to your warehouse activities.

In the **Reason Code** UI, you can use the “Enable Reason Codes” flag to edit, enable, and disable reason codes. You can also search for reason codes that do and do not have reason codes enabled. This will help you to better identify and optimize the reason codes you are using most frequently.

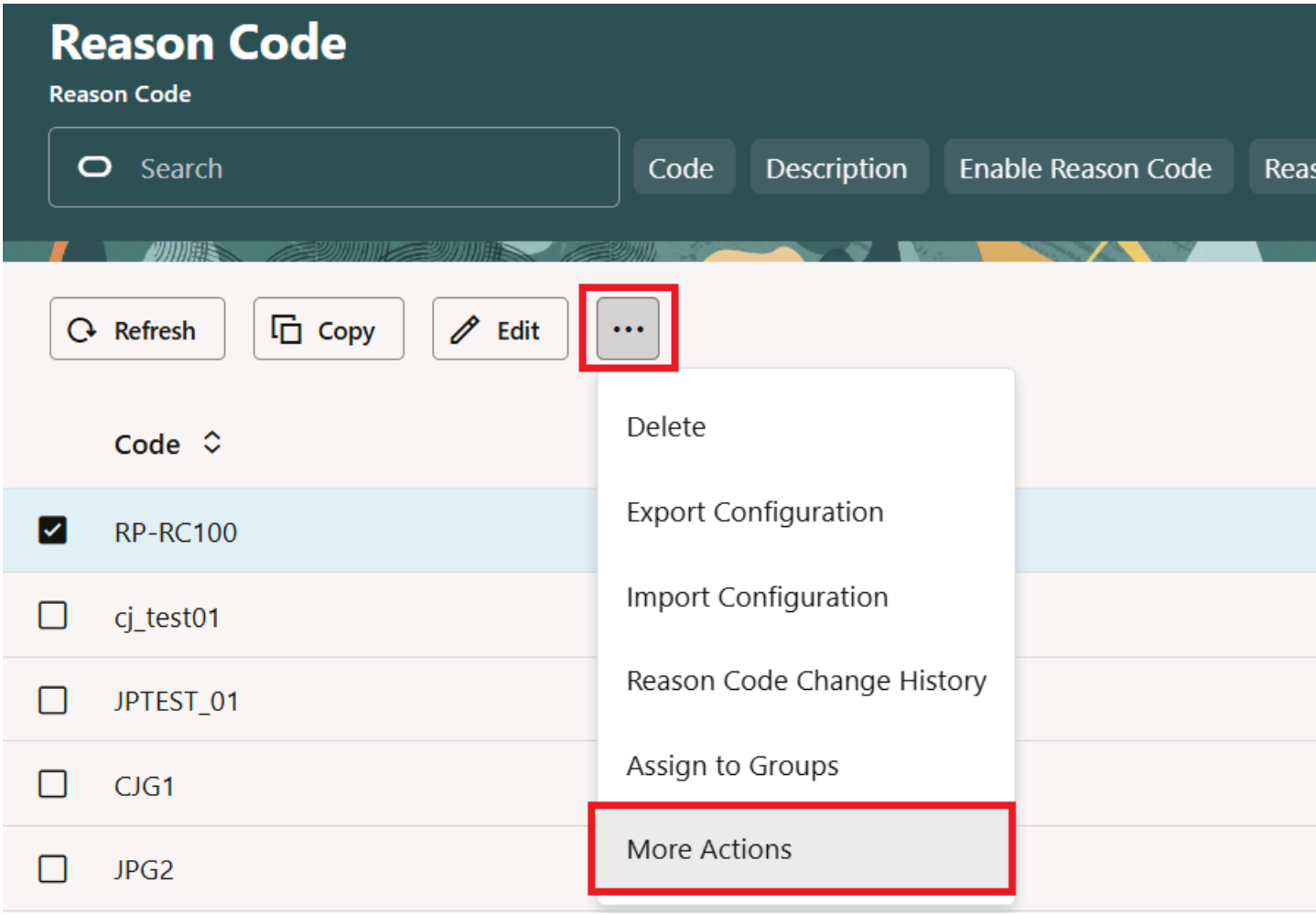
Enhanced Reason Code Management

You can assign stock adjustment reason codes to specific user groups and transaction categories, for example, Finance teams, giving them exclusive codes for their functions and preventing other teams from using them. This granularity improves control and data integrity, reduces audit risks and inconsistencies in stock records, and streamlines compliance by ensuring all adjustments are accurately tracked and audited.

To support Reason Code Assignment to Groups, child screens are made available in the Reason Code View UI on the REDWOOD. To access these screens, you need to click following 3 buttons available in the More option:

- Assign To Groups: Allows assignment of user groups to each reason code
- Assign to Categories: Allows assignment of categories to each reason code

- Reason Code Literals: Displays reason codes with supported translation.



Note:

- By default, these buttons are disabled. You need to select one or more records to enable the button and access the screen.
- These buttons are permission controlled and requires “Reason Code / Edit Reason Code" to be enabled for non admin user.
- These UI screens have following fields:

Screens

UI Screens	Fields in Each screen
Assign to group	- Reason Code: Lists the Reason code. - Reason Code Description: List of selected Reason code description.

UI Screens	Fields in Each screen
	◦ Group: List of all User groups configured in the logged in Company. In a Parent company, lists all the groups of the Child companies as well.
Assign to Categories	◦ Reason Code: Lists the Reason code. ◦ Reason Code Description: List of selected Reason code description. ◦ Category: List of all Categories.
Reason Code Literals	◦ Reason Code Description: List of selected Reason code description. ◦ Language Code: List of all the supported language codes ◦ Translated Reason Code: Enter the Translated Reason Code (max 10 character) ◦ Translated Reason Code Description: The Translated Reason Code Description (max 75 character)

To apply the reason code authorization, do the following:

1. Launch Redwood Mobile Reason Code Transaction
2. Select the one or multiple record.
3. Click More Action (...) button. The Assign to Group and Assign to Category are enabled.
4. Click your desired button and the child screen opens.
5. Perform CRUD operations.

Note:

- To support reason code auth by categories, we have defined categories for all Mobile transactions(can be viewed in modules UI) and defined categories for all POST APIS (can be viewed in view only UI ApiCategoryView).
- The GET API is extended to support retrieving list of assigned groups to Reason code(s), categories assigned to Reason code(s), or query list of api_category or Reason Code Literals. For more information, refer to WMS REST API Guide

Reason Code Authorization Logic

The reason code authorization feature enables you provide the reason code to specific groups and/or categories, enhancing security and control. This update ensures that reason codes are only available for relevant applications (UI and Mobile), transaction and thus streamlining user experience.

Example: UI Transaction Mobile Scenarios

If a reason code is assigned to a specific group and/or category, the system allows its use only for that group and/or for screens belonging to the specific category.

For example, let's say you have the following reason code configuration.

Note: This logic applies for Mobile transaction scenarios as well.

Reason Code	Assign To Groups	Assign To Categories
RC1	Group1 Group2	Inventory Management
RC2	Group1	Inventory Management Putaway and slotting
RC3	Group1	
RC4	Group2	
RC5		Inventory Management
RC6		Putaway and slotting
RC7		

Case 1: If User1 of Group1 cancels an OB Order via OrderHdrView UI (Of 'Wave Management' category), then, the Reason code drop-down list displays only - RC2, RC3, RC6, & RC7.

Case 2: If User2 of Group2 cancels an OB Order via OrderHdrView UI (Of 'Wave Management' category), then, the Reason code drop-down list displays only - RC4, RC6, & RC7.

Case 3: If User1 of Group1 modifies the LPN Quantity via IbContainerView UI (Of 'Inventory Management' category), then, the Reason code drop-down list displays only - RC1, RC2, RC3, RC5, & RC7.

> **Note:** If a user is assigned to multiple groups, the Reason code Authorization Logic is validated against the logged-in view/group.

Reason Code Authorization

When Reason code is prompted, the system displays only active reason codes that are valid for the logged-in user group and transaction category in the reason code drop-down list.

The reason code authorization logic and the prompt behaviour is now applicable for UI/ Mobile screen, and APIs flows. On passing the reason code, the displayed RC or the scanned value is processed through additional RC Auth Logic along with existing validations.

> **Note:** The system support Reason Code Auth Logic for GDD & Reconciliation Reason code.

Reason Code Change History UI

The Reason Code Change History UI displays more granular level of information to capture user activity performed on the Reason Code View and all child screens:

- **Current Value**: Displays the new value.
- **Last Value**: Displays the previous or old value.
- **Entity**: Displays the Entity (REASONCODE, REASONCODEGROUP, REASONCODECATEGORY, and REASONCODELITERALS) in which the value for the selected record is changed when performing CRUD operations.

  > **Note:** When you run any CRUD actions, the system will capture multiple records per actions with last and current values populated. For example, when you perform CREATE operation, the system will write 1 record per field that is populated. Similarly, for Update and Delete operations, the system will write 1 record per field that is updated or deleted.

Display Reason Code List of Values

Reason Codes are an important component in tracking transaction activity in warehouse operations. Whether it's inventory adjustments, short picking or audit changes, having a consistent method of capturing these reason codes is very important. In an effort to bring a more consistent and unified method across our applications, Warehouse Management allows you to capture those Reason Codes in several UIs and transactions.

Display List of Reason Codes in Transaction

To provide consistency among existing transactions that include a list of reason code values, the following transactions have been enhanced to include a list of reason codes:

- Create LPN
- Modify IBLPN
- Mod/Cancel OBLPN
- Consume LPN

Now, you no longer will need to manually enter a reason code at the reason code prompt. Instead, the list of reason codes will appear.

Configure and Prompt Reason Code

In the following screens, a new pop-up screen is now added which will prompt for a reason code when you are deleting records in the following associated transactions:

- Work Order UI
- Wave Template UI
- Replenishment Template UI
- Inbound Shipment UI
- Order Header UI
- Movement Request Header UI

When a reason code is selected, this reason code will also be reflected in Inventory History.

Reason Code for Fully Unallocated Orders in Wave Template UI

For some scenarios, there is a need to record a reason code for cancelled orders so that businesses can determine the causes and associated business impact of such cancellations. These reason codes can also be communicated if needed for integration with external systems.

In the **Wave Template** UI, a Reason Code drop-down has been added where you can now capture reason codes for orders that are “Cancel Fully Unallocated” or “Cancel Partially Allocated”. This same change will apply in the **Replenishment Template** UI for Movement Requests.

Reason Code Drop-Down

NOTE: The associated reason codes will also update in Inventory History. For example:

- IHT-85 Order detail status change
- IHT-12 Order detail shorted
- IHT-27 Order cancellation

- IHT-20 Order status change

Inventory History Transaction (IHT) Detail

Picking/Packing Transactions - Mobile Modify Cancel OBLPN/Audit OBLPN - IHT-85

- The Reason code will come into play only during shorting
- The Reason Code will be populated on IHT-85 for the shorting instance whether the system completely shorts the order detail or partially shorts the order detail.

Picking/Packing Transactions - Mobile Modify Cancel OBLPN/Audit OBLPN - IHT-20

- The Reason code will come into play only during shorting
- The Reason Code will be populated on IHT-20 for any de-allocation that occurs.

NOTE: if there are multiple shorts being done with different reason codes, the latest reason code will be captured on IHT-20.

Wave De-allocation - IHT-20

- When the order gets cancelled then the reason code captured on wave template will be passed on the IHT.

Wave De-allocation - IHT-85

- When the order detail gets fully cancelled then the reason code will be captured on IHT-85
- During Wave De-allocation, reason codes IHT-12 and IHT-27 will be written.

NOTE:

- During Picking/Packing/Cancel OBLPN IHT-12 and IHT-27 will be written.
- When the order type's de-allocate only on Short is set to "Y", the reason code captured will be written on respective IHTs.

Prompt Reason Code Changes

The prompt-reason-code parameter is available for the following Mobile transactions:

- Modify LPN
- Consume LPN
- Modify/Cancel OBLPN

Module Parameter Choice

When the prompt-reason-code parameter is set to yes, then the system will enable the defined reason code value for the associated transaction.

Mobile Create LPN - Mode Screen Parameter

NOTE: In RF Create LPN, the Mode screen parameter allows you to enable or disable the prompt for reason codes. Based on screen parameter settings, the reason code will be prompted or will not be prompted while using Mobile Create LPN.

Default Reason Code on Short

Your frequent Picking and Packing transactions on the floor should be much faster with the option to now default the reason code in your mobile transactions! The default_reason code_on short parameter allows you to define a default value for your floor users so that they no longer have to manually enter a reason code for picking and packing transactions.

For the following transactions, if the default_reasoncode_onshort value is set to yes, then the system will enable the defined parameter value for the associated transaction.

- Pack OBLPN
- Pick IBLPN
- Pick Cart
- Pack NC Active

To enable the prompt-reason-code parameter:

1. From the **Modules** UI, search for the associated screen (for example, Modify LPN.)
2. Click parameters and add **prompt-reason-code**.

To enable default reason code on short:

1. From the **Modules** UI, search for the associated screen (for example, Modify LPN.)
2. Click parameters and add **default_reasoncode_onshort**.

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 **Inventory 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”.

Inventory Lock Codes UI Fields

The following table describes the purpose/intended use for the fields in **the Inventory Lock Code UI:**

Field	Description
Lock Code	Name of the lock code.
Description	Describes the location of the lock code.

Field	Description
Allocatable	If checked, LPNs with this lock code are still eligible for order allocation.
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).
Treat as Attribute	Allows lock codes from the order detail to be populated onto the inventory attribute. The system allows you to enter an inventory attribute (a to f) as a value in the “Treat as Attribute” field. When you apply a lock code (configured with “Treat as Attribute”) to inventory, the system overrides the corresponding inventory attribute value at the inventory level. **Note:** • New users and existing users who have not previously used “Treat as Attribute” (created at least one lock code at the parent company level) are not allowed to create a lock code with “Treat as Attribute”. If you save a lock code populated with “Treat as Attribute”, the system displays an error message. • Existing users who already have at least one lock code with “Treat as Attribute” at the parent company level can continue to configure “Treat as Attribute” for inventory lock codes.
Allow Multiple Lock Codes	Allow multiple lock codes to be configured in the same location.
Generate Adjustments instead of Lock Code Records	When a lock has the **treat as attribute** flag selected, this allows you to write an inventory adjustment history record instead of the lock code record.
Allow Loading	Allow loading of inventory containing lock codes.
Allow Manifesting	Allow manifesting of inventory containing lock codes.
Prevent Putaway	Prevent putaway of inventory containing lock codes.
Copy to Transfer Shipment Flag	Allows you to set up lock codes for transfer shipments. When set to yes, WMS will copy the lock code from transfer lock code to the lock code column on the inbound shipment detail.
Prevent Direct Consume	Prevent direct consume of inventory containing lock codes.
Inventory Attribute Transfer Code	When **Inventory attribute transfer code** is configured along with **Treat as Attribute,** on locking the container instead of populating the lock code value in the attribute field we populate the value configured in the **Inventory attribute transfer code** as the attribute on the inventory.
ERP Bucket	Name of the specific location for the ERP Bucket.
Lock Code Priority	Determines the order/priority in which lock codes will be considered.
Remove Inherited Location Lock on Unlocate	When set to Yes: On exiting from the location, • If the lock code on the LPN and Location lock code are the same, then the system removes the lock code. • If the LPN's Batch Lock Code (Batch Nbr lock code on the **IBLPN** screen) = the Location Lock code, then the system does not remove the lock code. When set to No: • The LPN will have the same lock code (previous location) when the LPN is moved out of the location.

Modules that Allow "Remove Inherited Location Lock on Unlocate" Flag

We have multiple ways to move inventory from one location to another. So, the new flag “Remove Inherited Location Lock on Unlocate” is updated for the following modules:

- Mobile Inbound Locate LPN Pallet (rf.inbound.cwrflocatelpnpallet)
- Mobile Inbound Container View > Locate LPN button (lbContainerView)
- Mobile Inbound Putaway (rf.inbound.cwrfputaway)
- Mobile Outbound Putaway OBLPN (rf.outbound.cwrfputawayoblpn)
- Mobile Inbound RF Putaway Active (rf.inbound.cwrfputawayactive)
- Mobile Inbound Move LPN (rf.inbound.cwrfmovelpn)
- Mobile Outbound RF Pack LPN (rf.outbound.cwrfpacklpn)

For the above modules, if the flag is disabled, the system will inherit the lock code from the previous location.

For the above modules, if the flag is enabled and the LPN is moved to another location, the system now:

- Removes the Lock code from the LPN as LPN Lock Code = Location Lock Code.
- Writes IHT 24 / IHT 25 records.
- Inventory gets reduced and increased in the respective ERP bucket (if the location lock code is associated with ERP).

> **Note:** The new flag “Remove Inherited Location Lock on Unlocate” applies for:
>
> - System Directed Putaway of Pallet and LPN
> - Manual Putaway of Pallet and LPN

Updated APIs

Additionally, the following APIs are updated with the new “Remove Inherited Location Lock on Unlocate” flag. The behavior of the flag in APIs works the same as the UI screens.

- Move LPN API
- Pack LPN API
- Locate LPN Pallet API

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:

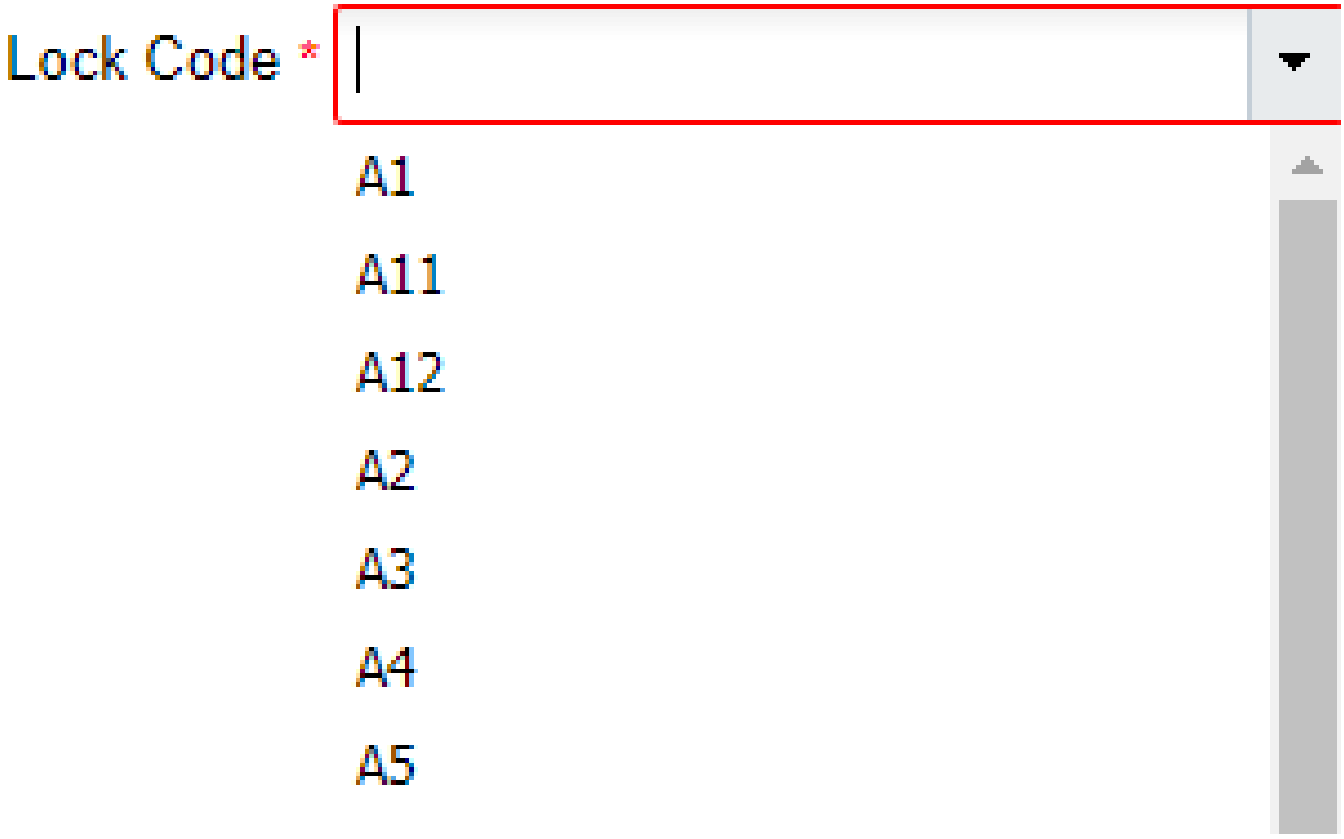
This will prompt a new window, where you can add multiple lock codes to the container:



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.





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 deafult, only an administrator can access these button. Users with different roles requires 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.

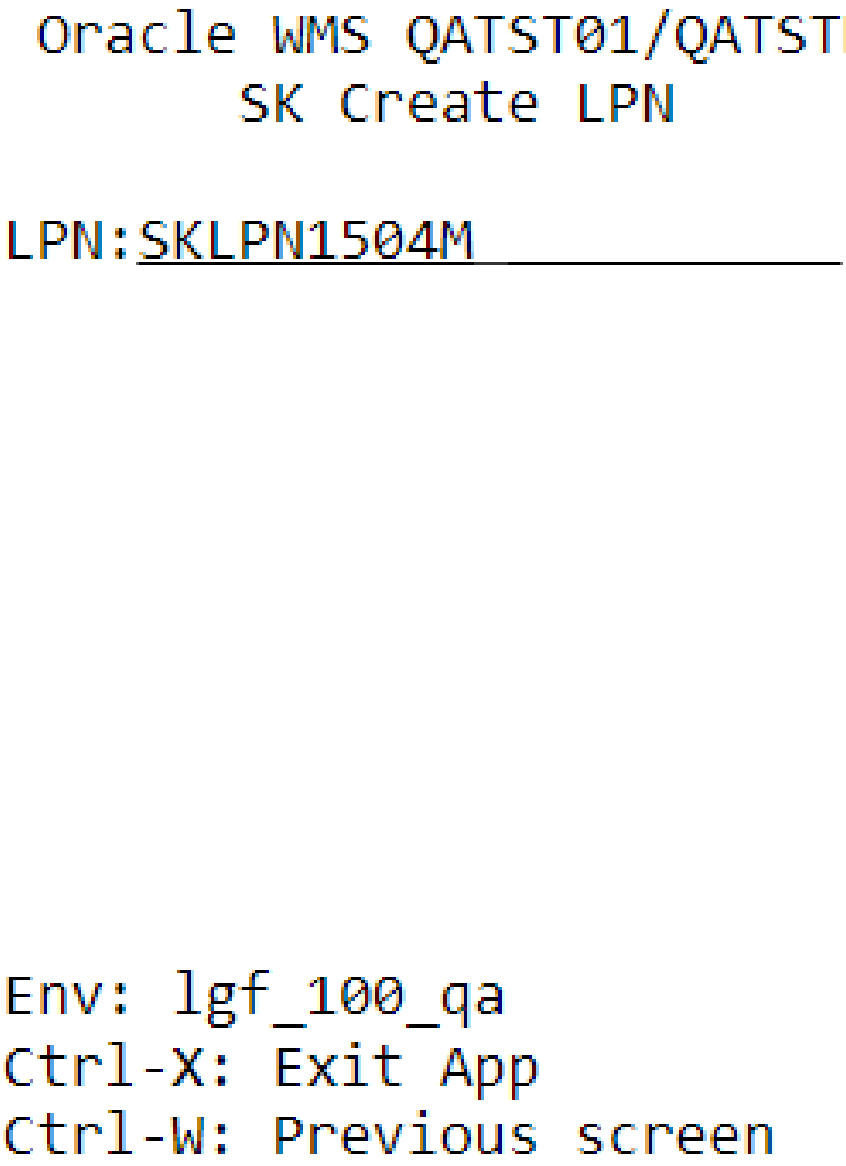
RF Create IBLPN

Before you begin to assign an inbound load to an outbound, create an LPN as shown in the following steps:

Steps:

1. Login to WMS Mobile using 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.



3. From the next screen, enter the 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.

Capture Pallet Images During Create LPN

You can capture images in real time during the Mobile Create LPN transaction. The image is linked to the LPN created and can be used to review or validate container condition.

Before you start, ensure you have:

- Access to the Mobile Create LPN transaction.
- Camera access enabled on the mobile device.
- **capture-lpn-image** screen parameter configured.

Note: You can capture new images only. Existing images from the device can't be attached.

To enable and capture images, do the following:

1. Go to the Create LPN module.
2. Open Parameter > Screen Parameter.
3. Select capture-lpn-image. Set the value:
    - Yes: Show image capture screen when ending the LPN.
    - No/Blank: Continue normal Create LPN flow without image capture.
4. Click Save.
5. Now, open Mobile Create LPN and enter or scan the required LPN details.
6. Press CTRL-E to end the LPN.
7. On the Image Capture screen, capture the image.
8. Upload or confirm the image.

Pallet Handling in Mobile Create LPN

The Create LPN pallet-handling enhancements enable warehouse operators to create several LPNs on one pallet as part of a single receiving workflow. Operators can capture pallet-condition images, print pallet labels, cross-dock palletized inventory, and apply facility-specific location controls. You can use in this feature in Mobile **Create LPN** and **Create LPN from Active**.

Before using pallet handling, ensure that:

- Users have access to the appropriate Mobile transaction.
- Valid pallet numbers, LPN numbers, items, quantities, and locations are available.
- A default printer and label configuration are available when pallet labels are required.
- Inbound LPN cross-dock processing is configured when palletized inventory must be cross-docked.
- Facility administrators can manage screen parameters and facility message settings.

Palletize LPNs During Create LPN

This feature adds a pallet based Create LPN workflow. Instead of creating and handling each LPN separately, an operator can first identify the pallet and then create multiple LPNs for that pallet by configuring the `pallet-handling` screen parameter.

Palletize LPN

Values	Behaviour
Blank	Uses the standard MOBILE Create LPN workflow with no palletization.
LPN as Physical Pallet	Retains the existing behaviour in which an LPN represents a physical pallet.
Palletize upfront	Prompts for a pallet number before the LPN number and enables multi-LPN palletization.

Note: Use `pallet-handling` for this configuration. The standalone `palletize-upfront` and `lpn-as-physical-pallet` parameters are removed. To palletize LPN during the Create LPN, do the following:

- Open Mobile **Create LPN** or **Create LPN from Active**.
- Scan or enter the pallet number.
- Scan or enter the LPN number.
- Enter the required item, quantity, and inventory attributes.
- Complete the LPN. The system returns to the LPN scan field and retains the pallet number. Continue creating LPNs until the pallet is complete.
- Select **Ctrl+E: End Pallet** to complete the pallet workflow.

The system clears the pallet number and records the pallet association for the LPNs created in the session. It also updates pallet history and activity records.

Note: In **Palletize upfront** mode, the system does not allow putaway to an Active location. Use an eligible location type.

Capturing Pallet Images Operators can capture visual evidence of pallet condition at the end of the palletization process. The captured images are stored with the pallet for later review. You can just,

- Set `capture-pallet-image` to **Yes** in the Mobile Create LPN screen configuration.
- Set the parameter to **No** or leave it blank when image capture is not required.

To capture the pallet images, do the following:

- Create the required LPNs on the pallet.
- Select **Ctrl+E: End Pallet**.
- Capture one or more images when the image-capture screen opens.
- Select **Next** to continue.

The system associates each captured image with the pallet. Authorized users can view the images in the Pallet UI and MOBILE Pallet Inquiry.

Note: Mobile users can capture images but cannot attach existing image files.

Cross-Dock Palletized LPNs You can perform cross-docking for inventory that is palletized during Create LPN. The system evaluates the pallet only when the operator ends the pallet, rather than when each LPN is completed. All you need to do it,

- Set `pallet-handling` to **Palletize upfront**.
- Enable the required `xdock-iblpn` option:
  - **Yes,** and Prompt Destination Facility
  - **Yes,** and Do Not Prompt Destination Facility
- Create one or more LPNs on a pallet.
- Select **Ctrl+E: End Pallet**.
- Enter the destination facility, if the selected cross-dock option requires it.

The system evaluates the palletized inventory against cross-dock order details. It cross-docks to an existing eligible order when the required pallet number, inventory, quantity, order type, and destination facility match. If no order exists for the required pallet number, the system creates an order and cross-docks the palletized inventory. If an order exists but required details do not match, the system displays " ***No XDock order for Pallet"*** **.** The system updates the outbound LPN with the pallet number. For serial-controlled inventory, the system also transfers serial-number associations to the outbound LPN. **Print Pallet Labels** You can print pallet label on ending a pallet in Create LPN. It supports both Label Rules Engine processing and label-template processing.

- Set `print-pallet-labels` to **Yes**.
- Configure a default printer for the user or device.
- Configure Label Rules Engine rules or configure a label template when Label Rules Engine is not used.

Modifying IBLPNs

LPNs can be modified via the Mobile module *Modify IBLPN*. Here you can modify either the LPN's SKU, Quantity, or Putaway Type.

1. Enter the Mobile 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).

   > **Note:** You can update current quantity of partly allocated IBLPNs, provided it does not fall below the currently allocated quantity.

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.
   - A list of configured Reason Codes can be viewed in the *Reason Code* screen.

Formatting Rules for Inventory Attributes

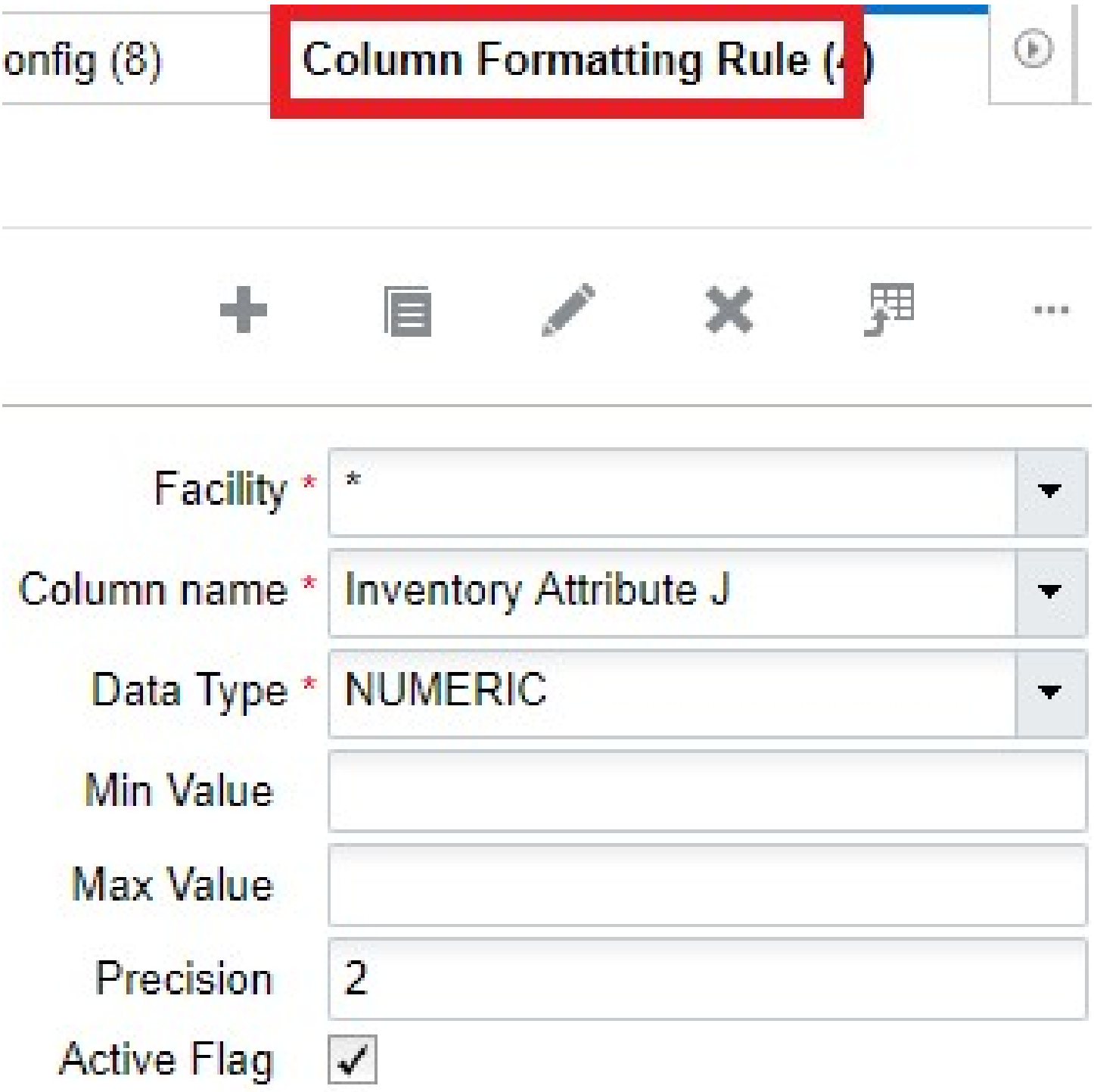
Because there can sometimes be a mismatch of inventory attributes in systems overall, WMS structures rules around open inventory attribute fields. This gives more control to end users for what they want to store in these fields.

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 Redwood Mobile, the 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 **Mobile** transactions that prompt for inventory attributes including:

- Receive by Shipment

- Receive by Load
- Cycle Count Location
- Cycle Count LPN
- Create LPN
- Sort and Receive.
- Split IBLPN
- Modify LPN
- 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.

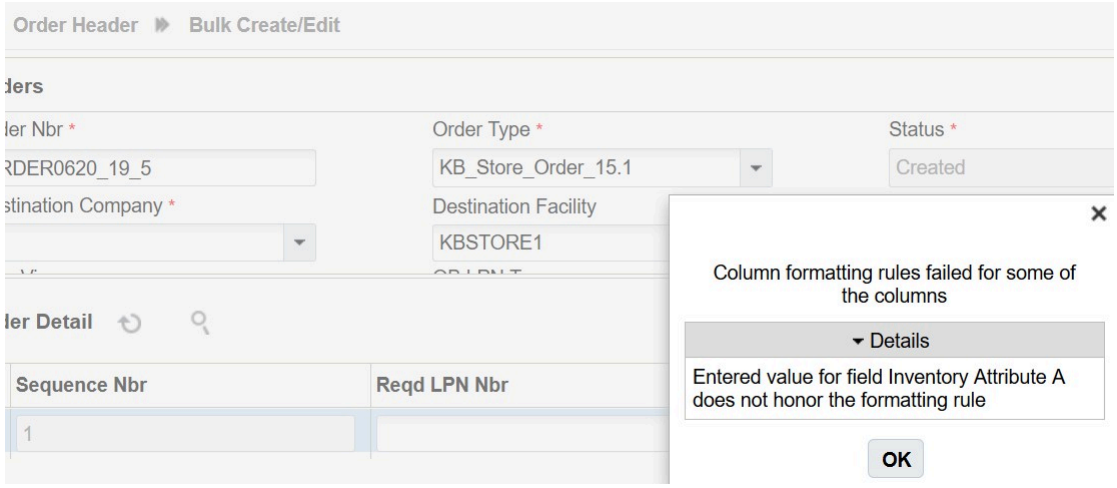
UI Screens

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 failed.

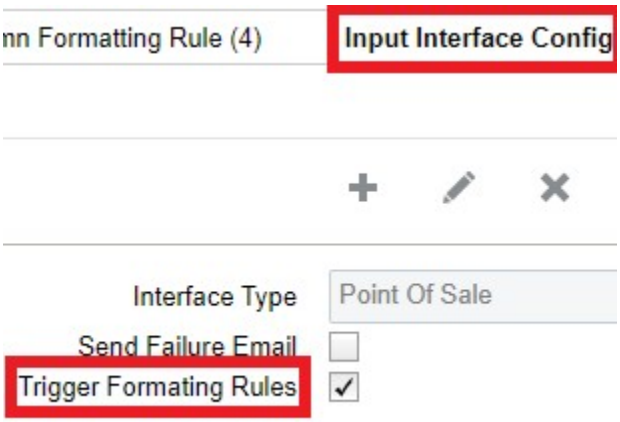


Input Interfaces

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.



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. • `POST .../entity/location/{id}/update_active_inventory/`
Composite Create	Used for Creating IBLPN with all details in a single request)

API Operation	Description
	• POST ¿/wms/lgfapi/v10/entity/iblpn/composite_create/
Bulk Update Inventory Attributes	Operation to Bulk Update Inventory Attributes on Inventory • 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.

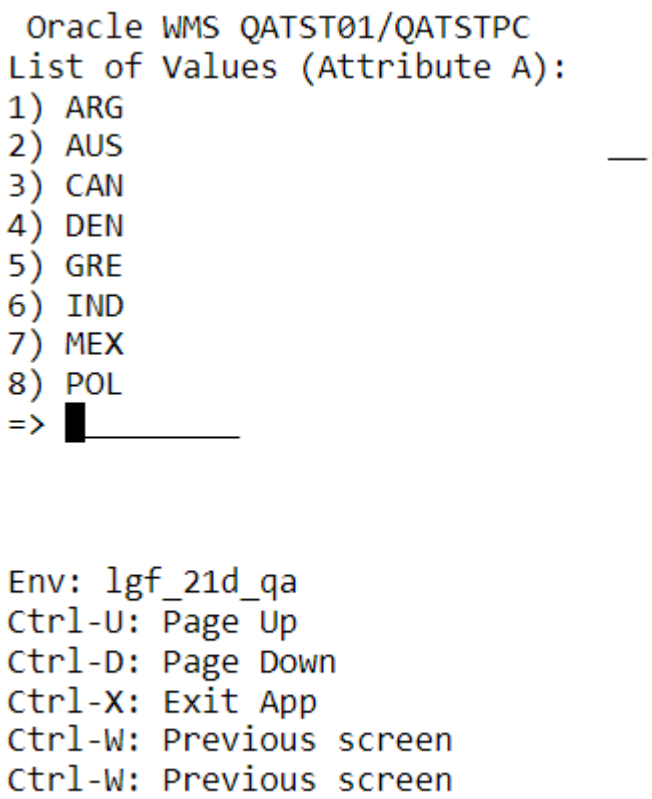
Configuring List of Values (LoVs) for Inventory Attributes

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.



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	You should enter inventory attribute value within the min value and max value defined for the rule. Else system will display error. You should not enter more than the precision defined after decimals.
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.

Redwood Mobile Screens

Once you configure formatting rules, inventory attribute values entered in the following Redwood Mobile transactions will be validated with the configured LOV values:

- Receive by Shipment
- Receive by Load
- Cycle Count Location
- Cycle Count LPN
- Create LPN
- Sort and Receive.
- Split IBLPN
- Modify LPN
- 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” mobile module. This module is used to either split or combine two IBLPNs into one IBLPN.

1. Go to the Mobile 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.

Combine OBLPN

When you are using the **Mobile Combine OBLPN** (rf.outbound.cwrfcombineoblpn) transaction, with the screen parameter prompt-oblpn-type was set to User Driven, the system will pre-populate the 'LPN Type' from the 'To LPN'.

When the Combine OBLPN screen parameter **prompt-oblpn-type = User Driven:**

1. If the scanned 'To LPN' is an existing LPN and has 'LPN Type' defined, then the system retrieves the 'LPN Type' and pre-populates it in the RF screen. Users can modify the LPN Type by overriding the LPN Type value.
2. If the scanned 'To LPN' is an existing LPN and does not have LPN Type defined, then the system prompts the user to provide a value. The system will proceed with the transaction only if the user inputs a valid LPN type in the system. Otherwise, the system displays an 'LPN Type Not Found' error message.

Note:

- Whenever LPN Type is pre-populated on the screen, you still have to tab out/pass the "LPN Type" field to continue.
- You can control which inventory items can be combined together using the screen parameter “packing-restriction-rule”. For more details, refer to the Mobile Screen Parameters file (*Oracle WMS Cloud Information Center* > **Documentation** tab > click the link under **Current Documentation** > refer to the **Mobile Screen Parameters Quick Reference** document).

Asset Handling in Combine OBLPN

The following behavior depicts pre-population of 'LPN Type' for asset during Mobile Combine OBLPN:

Facility Parameter>>**REUSABLE_TOTES = 'yes':**

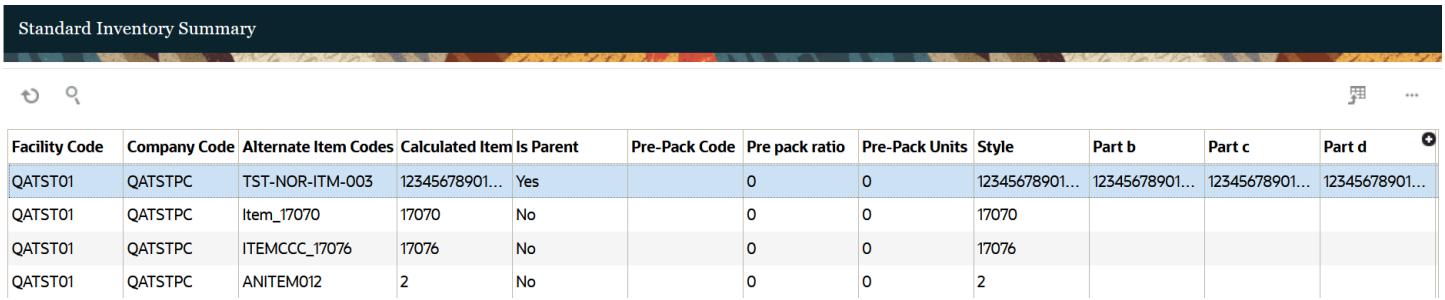
- If the Asset scanned for "To LPN" is in 'In Warehouse' status, then the system fetches the LPN Type from the Asset entity and displays it on screen.
- If the scanned Asset does not have LPN Type, the system allows users to update the existing LPN type.
- On ending the transaction, the LPN type is updated and the OBLPN is linked to the Asset.
- If the asset scanned is in 'In Use' status, then the system fetches the LPN Type from the OBLPN linked to the asset and displays it on screen.
- On completing the transaction, the existing OBLPN (with the same asset number) is updated with the other inventory.

Facility Parameter>>**REUSABLE_TOTES = 'no':**

- If an Asset is scanned for "To LPN", LPN type will not be fetched from the Asset.
- On completing the transaction, a new OBLPN having the same asset number is created with the LPN type, but the OBLPN will not be linked to the Asset.
- If the Asset scanned is "In use" status, where the OBLPN and asset share the same number but without an LPN type, the system prompts the user to input the LPN type value.

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.



Standard Inventory Summary

Facility Code	Company Code	Alternate Item Codes	Calculated Item	Is Parent	Pre-Pack Code	Pre pack ratio	Pre-Pack Units	Style	Part b	Part c	Part d
QATST01	QATSTPC	TST-NOR-ITM-003	12345678901...	Yes		0	0	12345678901...	12345678901...	12345678901...	12345678901...
QATST01	QATSTPC	Item_17070	17070	No		0	0	17070			
QATST01	QATSTPC	ITEMCCC_17076	17076	No		0	0	17076			
QATST01	QATSTPC	ANITEM012	2	No		0	0	2			

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 (Mobile)
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 (Mobile)

There are three ways to run Cycle Counts with Redwood Mobile, 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 Mobile 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.
    - 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 Mobile 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 system 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 Mobile 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.
    - 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 Plt** refers to the “Tiers per Pallet” field in the item’s detail in the Item Master.
4. If the quantity is incorrect, the RF will prompt message “Reenter quantity for this item”.
    - 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 system 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 system 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. The following are multiple ways to create CC Tasks:

- *Through user-configured Triggers*
- *Through user-executed Task Template*
- *Task creation using APIs*
- *Item Driven Cycle Count Task Creation for Rejected Counts*

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 (Mobile)* 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 (Mobile)* for details.

Description of Cycle Count Triggers

Trigger	Definition/Expected behavior
Alternate location for Putaway	- You scan a location different than the one directed by the system during directed putaway: - System generates a CC task for the location directed by the system. - Trigger module: 'rf.inbound.cwrfputaway' with mode = 'Directed Putaway Pallet' or 'Directed Putaway LPN'.
Short pick	- You short pick an LPN or units from an LPN: - System generates a CC task for the location where the LPN was shorted. - Trigger modules are: 'rf.outbound.cwrfpacklpn','rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickiblpn'
Short pick active	When you short pick the remaining quantity of a SKU in an active location: • If the selected task type is "CC-LOCATION" or "CC-LOCATION-DTL", then the system generates a CC task for the location where the quantity was shorted. • If the selected task type is "CC-LOCN-BY-ITEM", then the system creates item-driven cycle count tasks for the short picked SKUs at the active location. Trigger modules: 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', "rf.outbound.cwrfpickiblpn' Trigger API: From the MHE Pick Confirmation API when "short_flg" is set to True.
Cancel OBLPN in 'OB Created' status	- You cancel an OBLPN in 'Outbound Created' status from the UI: - System generates a CC task for the location(s) where the inventory in this OBLPN was allocated from. - Trigger module: 'ObContainerView' - Note that this trigger should only work when an OBLPN in 'Outbound Created' status is cancelled manually from the UI. If an OBLPN in 'Outbound created' status is cancelled by 'Undo Wave', the system should not create corresponding CC tasks even if this trigger is enabled.
De-allocate IBLPN from UI	- You de-allocate an IBLPN from UI: - System generates a CC task for the location where the IBLPN was de-allocated. - Trigger module: 'IbContainerView'

Trigger	Definition/Expected behavior
De-allocate Active Inventory from UI	- You de-allocate a SKU from active inventory in the UI. - System generates a CC task for the location where the SKU was de-allocated. -Trigger module: 'ActiveInventoryView'
Set Location 'To be counted' from Location screen	- You set the "To be counted" flag equal to 'Yes' in the UI. - System generates a CC task for the location where the flag was set to 'Yes'. -Trigger module: 'LocationViewFW'
Recount Location	- You reject an inventory adjustment record with 'Loc Dtl Count' = No and with 'Creation Type' = Manual (Recount triggers are only applicable for Cycle Counts done manually). - System generates a CC task for the location with rejected inventory adjustment record. -Trigger module: 'Inventory Adjustment Management'
Recount Location Detail	- You reject an inventory adjustment record with 'Loc Dtl Count' = Yes and with 'Creation Type' = 'Manual' (Recount triggers are only applicable for Cycle Counts done manually). - System generates a CC task for the location with rejected inventory adjustment record. - Trigger module: 'Inventory Adjustment Management'
Approve 'Location Mismatch' record	- You approve an inventory adjustment record that moves an LPN from another location to the cycle counted location (inventory adjustment record has warning 'Location Mismatch'). - System generates a CC task for the location where the LPN was located BEFORE the cycle count adjustment (LPN's 'Expected Location'). *Ex. If LPN was systematically in location A. However, during the cycle count that generated the inventory adjustment record, same LPN was counted in location B. Upon approval of this record, the CC task must be generated for location A.* -Trigger module: 'Inventory Adjustment Management'
Substitute LPN from different location	- You scan an LPN that is in a location different from the allocated LPN during Full-LPN or Reserve NC Picking (LPN substitution from different location). - System generates a CC task for the location where the LPN was allocatedoriginally.

Trigger	Definition/Expected behavior
	- Trigger modules are: 'rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickiblpn', 'rf.outbound.cwrfrepackoblpn'
Alternate location for Split LPN into active	- You scan a location different than the one directed by the system during RF_Directed putaway with parameter 'multi-sku-lpn-mode' = 'Split into active locations'. - System generates a CC task for the location directed by the system - Trigger module: 'rf.inbound.cwrfputaway' with mode = 'Directed Putaway Pallet' or 'Directed Putaway LPN' AND 'multi-sku-lpn-mode' = 'Split into active locations'.

Configuring Cycle Count Triggers

1. Go to the **Cycle Count Trigger Management (CCTriggerMgmtView)** UI - this displays a list of Cycle Count Triggers.
2. Select the trigger record and click the Edit icon 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: You can create CC Tasks at the item level. For detailed steps, refer to *Item Driven Cycle Count*

1. Go to the *Task Creation Templates* screen.
2. Click Create () and populate the necessary information.
   - **Description:** Input the Task Template's name.
   - **Template Type:** Select "CC" for Cycle Count Templates.
   - **Max Nbr of Tasks:** Input a numeric value. This is the maximum number of tasks that this template can create (leave blank if not applicable).
3. After creating the template, the next step is to create the task types that are created whenever this template is executed. Select this template and click on Details.
4. Click Create and populate the necessary information.
   - **Sequence Nbr:** Sequence for creating task types, if there are more than one within the template.
   - **Task Type:** The Task Type for the Task. This value must be a CC task type (CC Location LPN Scan or CC Location Contents).
   - **Priority:** The Task's priority when it is created.

- **Create Held Flg:** When checked, the task automatically goes to “HELD” status when created. You must ‘release’ this task manually from the Tasks screen.
- **Break By Quantity, Destination Zone:** Not applicable.

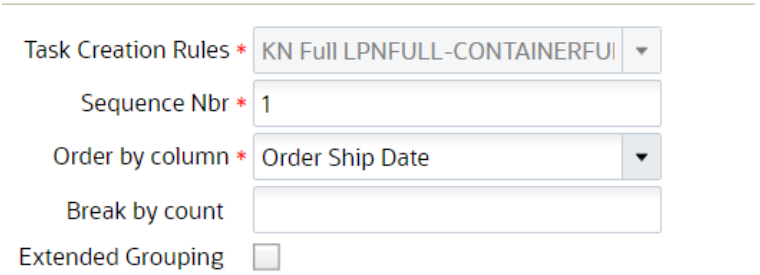
5. Click “Save” to save your changes.
6. The next step is to set up the Selection Rules. This tells the system which locations to create Tasks from. Go back to the Task Type window, select the record and click “Selection Criteria”.
7. In this new window, you will see a folder icon (); this is a “complex 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 Mobile task list.

> **Note:** If the Ordering Criteria is not specified, CC Tasks in the Mobile 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:



- **Sequence Nbr:** The sequence number for the ordering criteria record.
- **Order by column:** The criteria used for ordering the tasks.
- **Break by count:** Leave this field blank (only applicable for non-CC Tasks).
- **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 your 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.

For more detailed information on predicting locations for cycle count using AI/ML techniques and creating cycle count tasks for the generated location, see the following video:

Watch video

Create Item Driven Cycle Count Tasks for Rejected Counts

When a cycle count (cc) trigger is configured and you “Reject/Recount” cycle count adjustments on the **Cycle Count Adjustment Header View (CCAdjustmentHdrView)** UI, the system triggers a cycle count task for an entire location. However, for item-driven cc adjustments, this may not be ideal to recount all the SKUs in a location where only a few SKUs are counted and rest are untouched.Therefore, for the locations where item-driven cycle counts are performed, inventory controller may need to manually identify the item-location combination to be counted.

You can trigger item-driven cycle count tasks only for the rejected item-driven Cycle Count adjustments. When you “Reject/Recount” item-driven cc adjustment records, the system can trigger item-driven cycle count task(s) only for the SKUs associated with the rejected cc adjustment(s). This ensures that auditors count only relevant items instead of entire location, saving time and resources.

This helps you with the following advantages:

- Focusing cycle counting efforts on necessary items after an adjustment is rejected, reducing unnecessary counts.
- Enhancing control and flexibility in managing inventory operations.

> **Note:** This is applicable only for the following types of cc adjustments:
> - Item-driven cc adjustments
> - Location-driven cc adjustments with count mode of “Counted Items only” or “Counted Item Inventory Combination” (i.e., “update-locn-invn-mode” screen parameter is set to one of these values)

To trigger item-driven cycle count for the rejected cc adjustments, do the following:

1. Enable the screen parameter “allow-item-driven-recount” on the module **CCAdjustmentHdrView**.

   > **Note:** If allow-item-driven-recount = No or Blank: When you “Reject/Recount” CC adjustment(s) on the **Cycle Count Adjustment Header View** UI, the system creates a location-driven cycle count task for entire location. (If reject/recount trigger is enabled)

2. Navigate to the **Cycle Count Adjustment Header View** UI.
3. Select one or more cc adjustment record(s).
4. Click **Reject/Recount** action button.
5. On the select a task type pop-up, select an item-driven cycle count task type and priority.

   > **Note:** Both Task type and Priority fields are mandatory.

6. Click **Submit**.

The system creates item-driven cycle count task(s) for the rejected cc adjustment(s).

Note:

- On rejecting regular location-driven cc adjustment records, if reject/recount cc trigger is enabled, the system continues to create location level cycle count task.
- The system avoids creating duplicate tasks if an item-driven task already exists for a rejected SKU at the same location.
- The system creates a single item-driven task for all rejected SKUs under a group header. If multiple item-driven cc adjustment records are rejected together for the same location, the system creates a single item-driven task for all rejected SKUs from the records.

The following table outlines some scenarios of how the system handles rejected cc adjustments when the screen parameter “allow-item-driven-recount” is enabled:

Scenario	System Behavior
Rejection of single or multiple item-driven cc adjustments	Creates one item-driven cc task per location (as per cc adjustments) for all rejected SKUs
Rejection of location-driven and item-driven cc adjustments together	Creates item-driven tasks for specific items and location-driven tasks for location-driven adjustments
Location already has a “CC-LOCN-LPN-CNT” task	Cancels existing “CC-LOCN-LPN-CNT” task and triggers a new item-specific task

Create Cycle Count Tasks for Empty Locations

The ability to count empty locations can greatly improve your cycle counting and inventory accuracy. In WMS, you have the option to count empty permanent active and reserve locations and empty dynamic Active and Reserve locations.

> **Note:** If there are multiple inventory records in a location and even if one of the inventory records had 0 quantity, then the location will be considered eligible for cycle counting.

In **Cycle Count Task Selection Rules** the "IS_LOCATION_EMPTY" drop-down option determines if the location is empty or not. If the selection function IS_LOCATION_EMPTY ="yes", All permanent and dynamic locations with a current quantity of zero will be considered for creating a cycle count task.

If the selection function IS_LOCATION_EMPTY ="no", the system will consider locations that have inventory for creating Cycle count Tasks. If the selection function IS_LOCATION_EMPTY ="yes", then the system will consider locations eligible for counting only if the location does not have inventory. If the inventory's current quantity value is set to 0, the system will create cycle count tasks for both permanent and dynamic locations using cycle count task creation selection rules.

To create cycle count tasks for empty locations:

1. From Cycle Count task > **Details**, select the task type > **Selection Criteria**.
2. Set the Column function name to location -is empty
3. Set the Column value to Yes.

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.

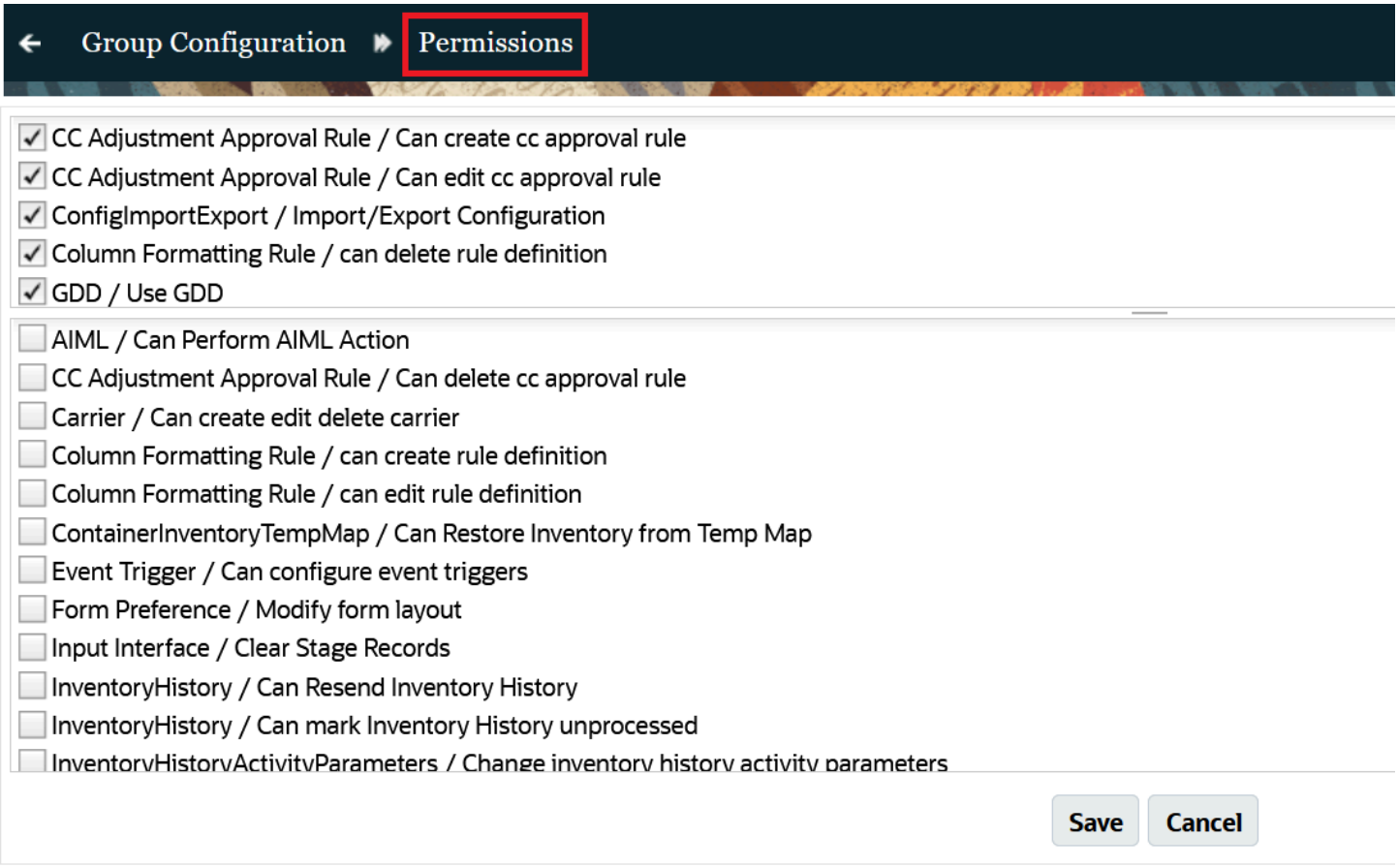
Configuring a Cycle Count Approval Rule

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 Mobile 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.

Approve or Reject Cycle Count Adjustment Records at the Detail Level

You can approve or reject cycle count adjustment records directly at the detail level, allowing valid counts to be processed while only inaccurate SKUs are sent for recount. This is available for both active and reserve locations, as well as location-driven and item-driven cycle counts.

Approval Status Tracking

The **Detail Approval Status** column (on the **Cycle Count Adjustment Detail** screen) helps supervisors track the approval or rejection status of individual adjustment records.

You can add the column through the UI and save the personalized view. Existing adjustment detail records will display a blank value until actions are taken.

Approve and Reject Actions

In the Cycle Count Adjustment Detail screen, the Approve and Reject action buttons allow supervisors to process selected detail records directly from the UI.

Key capabilities include:

- Support for multi-select processing
- Approval and rejection at the SKU level
- Automatic handling of remaining unselected records
- Inventory updates applied only to approved SKUs with discrepancies
- Rejected SKUs are excluded from inventory adjustments
- When performing **approvals**, selected records are approved.
- Remaining records are automatically rejected. When performing **rejections**, selected records are rejected. Remaining records are automatically approved.
- During processing, the system displays confirmation dialogs showing how many SKUs will be approved or rejected before changes are applied.
    - **Note:** Even if one record of a SKU is selected and approved, all the remaining detail records within the adjustment header will be approved.

Automatic Recount Task Creation

If any SKUs are rejected during approval or rejection processing, the system prompts supervisors to select:

- A task type
- A task priority

Once confirmed, the system automatically creates item-driven cycle count tasks for only the rejected SKUs.

Additional behavior includes:

- Even if there are no variances and a detail is not selected for approval, it will get rejected
- If one detail line for a SKU is rejected, the entire SKU is included in the recount task
- No new recount tasks are created if an active location-level cycle count task already exists. Even if a recount trigger is enabled, the item driven cycle count task will take precedence, and the location driven recount task will not be created.

Variance Driven Approval

The **Variance Driven Approval** action allows supervisors to approve or reject records automatically based on configurable variance thresholds rather than manual record selection.

Supervisors can:

- Define either a variance quantity or variance percentage
- Automatically approve records within the configured threshold

- Automatically reject records outside the threshold

This reduces the risk of manually approving incorrect adjustments while accelerating review of large cycle count batches.

Improved Handling for Uncounted Anticipated LPNs

To maintain inventory integrity in reserve locations, Warehouse Management prevents partial approval or rejection of detail records associated with uncounted anticipated LPNs during Detail Count or LPN Scan mode counting.

If users attempt to selectively approve or reject records for an uncounted LPN, the system displays the following error:

“Selective approval is not allowed for LPNs that are deemed to be lost, %LPN”

This ensures all detail records associated with the missing LPN receive a consistent decision. The same validation also applies during variance-driven approval processing.

Cancel Cycle Count Location by Item Tasks via API

Warehouse Management also supports cancellation of **CC-LOCN-BY-ITEM** tasks through the following APIs:

```
POST /wms/lgfapi/v10/entity/task/{id}/cancel

POST /wms/lgfapi/v10/entity/task/{task_number}/cancel

POST..../wms/lgfapi/v10/entity/task/bulk_cancel/
```

The system validates that tasks are in Ready or Held status before allowing cancellation.

Steps to Enable and Configure

To enable the **Approval Status Column**,

1. Navigate to the **Cycle Count Adjustment Detail** screen.
2. Open the column configuration or personalization settings
3. Add the Approval Status column
4. Save the view configuration

The column will then display approval and rejection statuses for processed detail records.

Permissions

To use the new detail-level approval and rejection functionality, administrators must grant the following permissions through the **Groups View > Permissions** screen:

- Location/**Approve CC Adjustment Details**
- Location/**Reject CC Adjustment Details**

Cycle Count Exception Scenarios

Canceling 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 system returns to the main menu.

LPN is in "Canceled", "Consumed", or "Shipped" Status

- When you scan an LPN in “Canceled”, “Consumed” or “Shipped” status in the Cycle Count operation, the system displays an error message that the LPN is in invalid status.
- Finding “Canceled”, “Consumed”, and “Shipped” status LPNs in the reserve location reflects poor inventory management.
- For the “Shipped” LPN inventory, you must create a new LPN, using the Create LPN Mobile option for the physical inventory in the location. DO NOT FORGET TO PUTAWAY.

Note: In the module **rf.inbound.cwrfcyclecountlocn**, if you enable the screen parameter “allow-new-lpn-scan”, you can scan canceled and consumed LPNs in both tasking and non-tasking mode to perform detail level cycle counts. On enabling the screen parameter “allow-new-lpn-scan”, the system allows consumed LPNs only for the location-driven detailed cycle count. It is not supported for the “CC-LOCN-BY-ITEM” task type. However, the system supports scanning of new or canceled LPNs to perform both location-based and item-based detailed cycle counts.

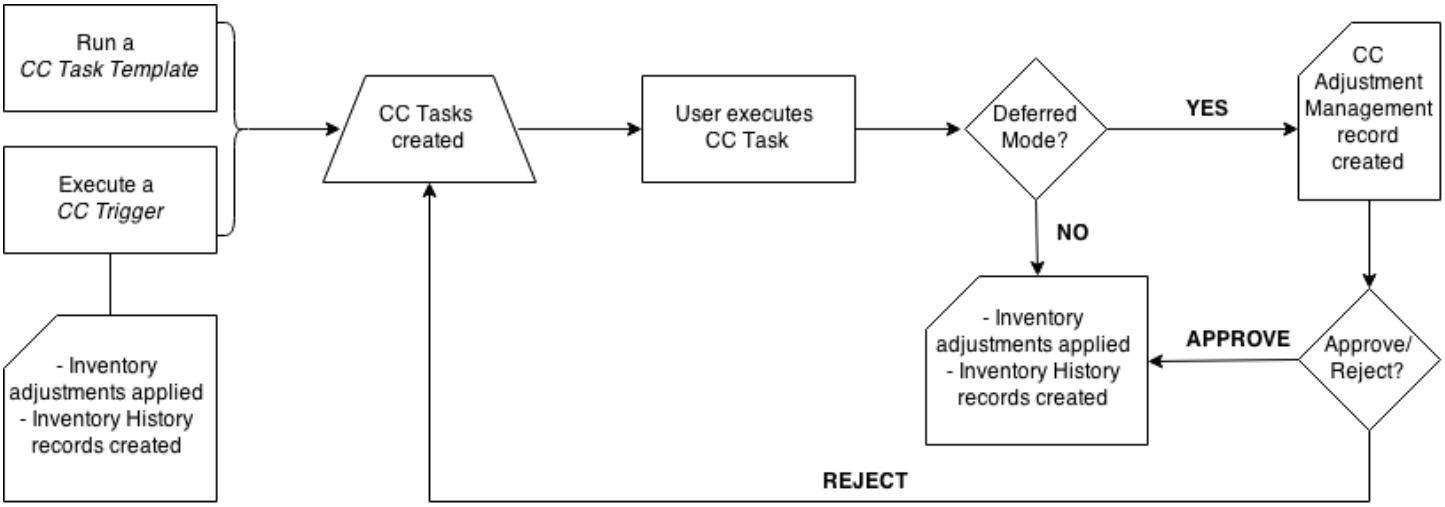
LPN is in an Invalid Status

When you scan an LPN in “Packed” status in the Cycle Count operation, the system gives you an error message that the LPN is in invalid status.

Cycle Count Inventory Updates

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 Mobile CC_Location modules: Time between Location scan until 'Ctrl-E- End Location Count' is entered.
  - For Mobile 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.

- **Mobile screen name:** Name of the Mobile 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.

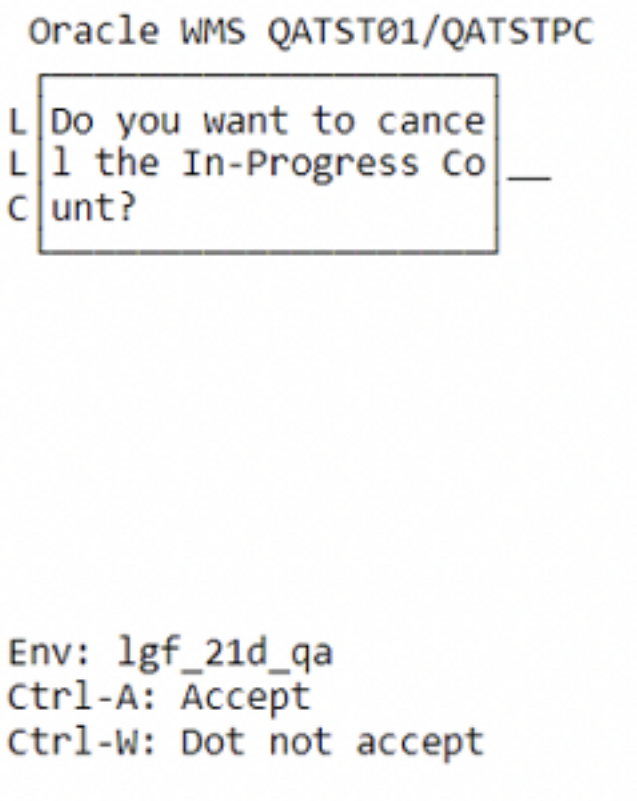
Reinitiate In-Progress Deferred Cycle Counts

The Reinitiate In-Progress Deferred Cycle Counts option is available in **Mobile (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:



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 Mobile session goes down cancelling the count through UI will make you count the whole location.

New Counter Field for Number of LPNs Counted

Mobile 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**:

- Mobile **(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 trigged the creation of this inventory adjustment record. The same 'Creation Type' values needs to be added to the 'Task' screen with the exception of 'Manual' 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:** TheTask number that was executed to create the corresponding inventory adjustment. Value should be blank if the count was performed manually with Mobile CC Location or Mobile 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 Mobile CC Location or Mobile 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 (Mobile CC Location) or LPN levels (Mobile CC LPN) as a hyperlink. Click the hyperlink display a list of all the warnings for that specific inventory adjustment record.

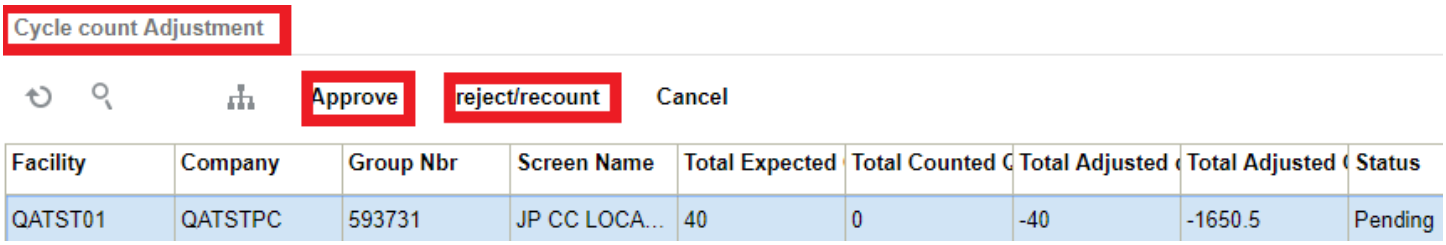
Warning	Scenario
Attribute Discrepancy	- You enter a different batch and/or expiration date or serial number during Cycle Count. - Warning should only be displayed for the detail record(s) for which different attribute was entered.
Inventory Expired	- You enter a passed expiration date during Cycle Count. - 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	Scenario
	- 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.



To approve/reject records, make sure it is in "Pending" status and click the "Approve" or "Reject/Recount" buttons.

Note: The **Cycle Count Adjustment Header** provides options for both approval and rejection actions. However,if you want to implement unique workflows for approval and rejection, you can enable the following group permissions:

- To use the **Approve** action button, enable the group permission “location / Approve CC Adjustments”.
- To use the **Reject** and **Cancel** action buttons, enable the group permission “location / Reject or Cancel CC Adjustments”.

To control the **Reject** and **Cancel** action buttons, you must manually enable the group permission “location / Reject or Cancel CC Adjustments”.

Users with the "Administrator" role can Approve and Reject Cycle Count adjustments by default. To grant the group permission “location / Reject or Cancel CC Adjustments” to users with other roles, such as "Management", it must be added to their respective groups.

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.

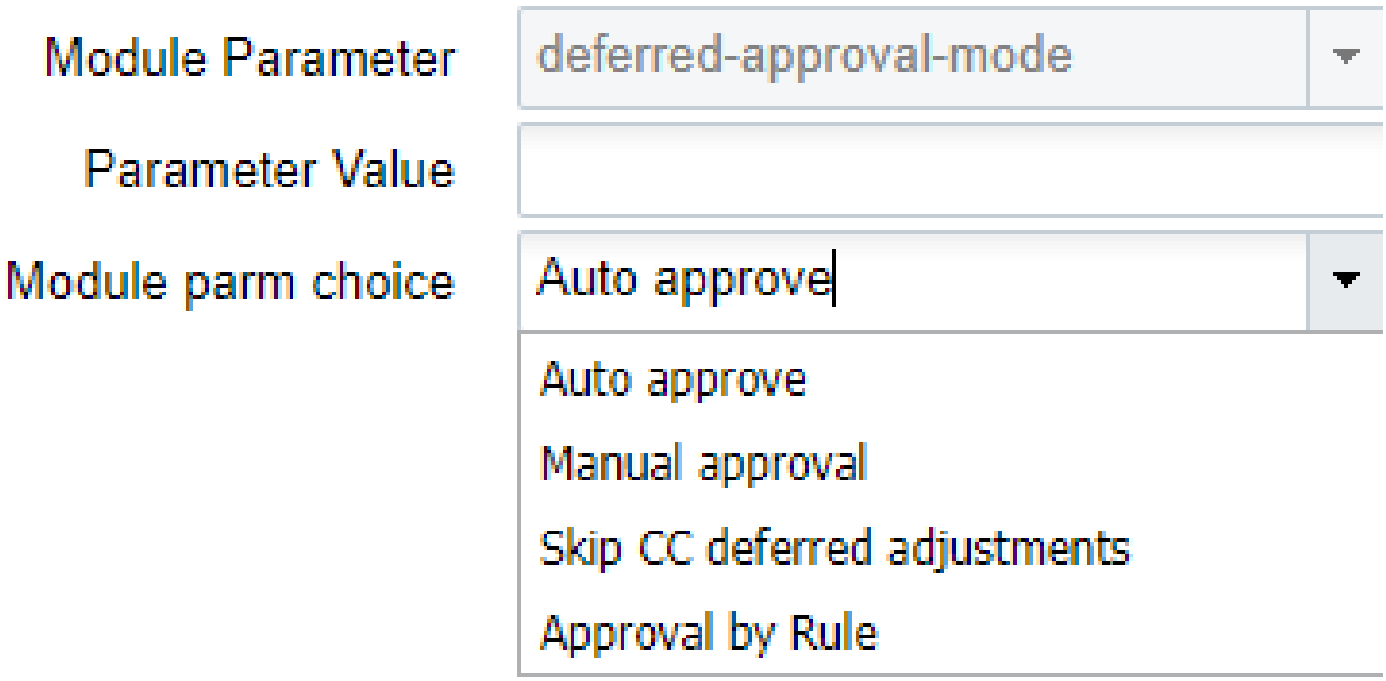
Note: If the selected record is at the LPN level (field ‘Loc Dtl Count’ <> blank), the system will display an error message “Cannot reject count at the LPN level.”

Deferred Approval Mode set up in RF Cycle Count Transactions

Previously, when performing a Cycle Count with Mobile Cycle Count Location or Mobile 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.



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**, "Mobile 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**,Mobile 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	• • When "deferred-approval-mode" is set with **Skip CC Deferred Adjustment**, then while executing Mobile 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.

Mode	Definition
Approval by Rule	• You can define the rules and set the tolerance % or value for an item or group of items. The system will check for rules before writing to the CC Deferred Adjustment UI and wait for approval. See *Configuring a Cycle Count Approval Rule* (Approval Rule Options) for more details.

Adding Attachments in CC Adjustment UI

When you perform approve/reject a cycle count adjustment or request a recount of the location by providing a comment and upload attachments such as approval emails, pictures of locations or item for approval against each adjustment. To utilise this feature, a screen parameter "capture-attachments" selection must be enabled with appropriate parameter choice for CCAdjustmentHdrView module.

Before you begin:

1. Go to Module > CCAdjustmentHdrView
2. Select screen parameter **capture-attachment** and click edit icon. The module parm displays following choices:
   a. **Capture CC Attachments**:The upload attachment dialog box window is enabled and is displayed during when record is selected for approve or reject.
   b. **Do Not Capture CC Attachments** : The approval or rejection process continues to work, by default without any upload attachment option.
   c. **Capture CC Attachments Mandatory** – Choose this parameter if operations mandates uploading the attachments for approval or rejection. Therefore, on choosing a single record to approve or reject, the Upload Attachment dialog box window is prompted. However, if the user closes the dialog box without uploading any attachment, the approval or rejection isn'tprocessed and selected record remains untouched.
3. Click **Save**.

Additional Permission: This action button is permission controlled and requires user roles to request for access. Ensure following two permissions are enabled for users.

> **Note:** By default, user with Admin role is auto assigned.
> - location/Upload CC Adjustment Attachments.
>
> > **Note:** This permission is not used in the UI and is created for upload attachment REST API.
>
> - location/Delete CC Adjustment Attachments.

To Upload the Attachment, do the following

1. Go to CC Adjustment UI (CCAdjustmentHdrView) > Select a record.

   > **Note:** If multiple records are selected for approval or rejection, the system displays an error message "*Cannot upload attachment(s) for multiple records, please select 1 record at a time*".

2. Click Approve or Reject/Recount button. A confirmation dialog box window appears “Do you want to upload attachment(s)?”.
3. Click **OK**. The **Upload Attachments** dialog box open.
4. Click the **Choose Files** folder and browse through your files.

   > **Note:** The attachments uploaded are verified through ICAP scanning and validated for file type (against the 8 types listed in oce_file_type table except 'ALL'). The system supports upto max file size of 10 MB.

5. Click Upload. On completion, “File(s) uploaded successfully” message is displayed.
6. Click **OK**.

To View, Download, or Delete the Attachment:

1. Enable the **Nbr Attachment** field checkbox from the grid.
2. This field displays an incremental number of attachments with a hyperlink and are uploaded successfully to OSS.
3. Click the numbered hyperlink in the column for the record you want to download or click (X) to delete the attachment. The Nbr Attachment screen open.
4. Select the record to download or click (X) to delete.

> **Note:** The delete icon is enabled only if the user has "*location/Delete CC Adjustment Attachments*" permission.

REST API Support to CC Adjustment

The Upload, Get, and Delete REST API also supports CC Adjustment entities. Refer to the WMS REST API Guide.

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:

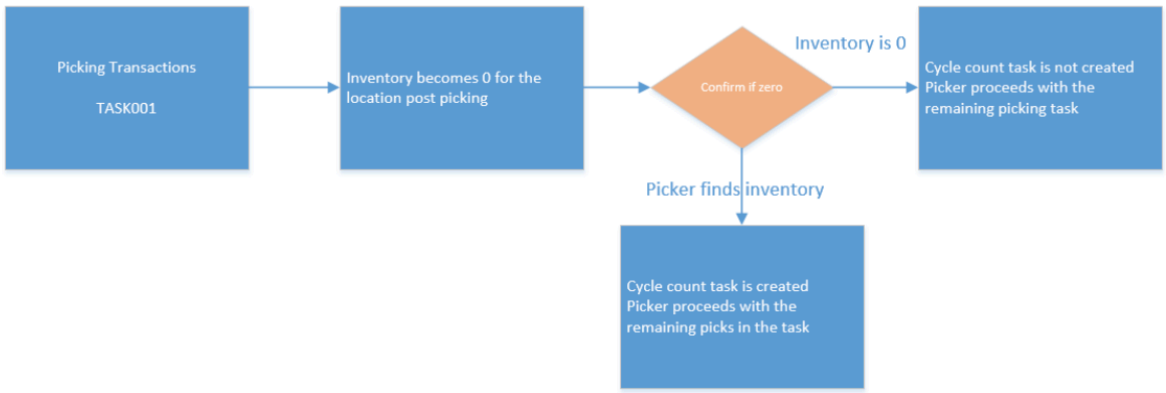
- Pack NC Active {order} (rf.outbound.cwrfpackncactiveorder)
- Pack {oblpn} (rf.outbound.cwrfpacklpn)
- Pick {iblpn} (rf.outbound.cwrfpickiblpn)
- IBLPN Pick for Consolidate Replenishment (rf.outbound.cwrfpickiblpnreplen)
- Pick Cart (rf.outbound.cwrfpickcart)
- Move LPN (rf.inbound.cwrfmovelpn

Pick to Zero

You need to configure the Mobile 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.’


Picking Transactions
TASK001
Inventory becomes 0 for the location post picking
Confirm if zero
Inventory is 0
Cycle count task is not created Picker proceeds with the remaining picking task
Picker finds inventory
Cycle count task is created Picker proceeds with the remaining picks in the task

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.

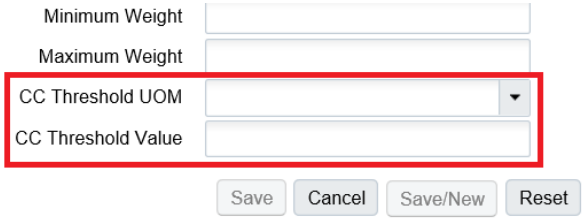
To receive an alert of the summary cycle counts in the IHT-37 - Active Location Cycle Count Complete and in the IHT-38- Reserve Location Cycle Count Complete, the ref codes and the corresponding ref values are captured. Please refer to the IHT Documentation for more information.

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).



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 you 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

    - After pressing 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 Mobile 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.

Allow Pallet Scan	Location is Palletized	Behavior
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 Mobile **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.

Item Driven Cycle Count

You can create customized cycle count tasks for specific items to accommodate counting specific items based on the item characteristics in a location. This optimizes the overall operations and inventory accuracy.

Cycle count for specific items in a location focuses on specific items instead of all items available in that location. You can plan cycle count tasks based on item attributes like counting specific items a certain number of times per year based on their velocity code or other specific attributes.

This helps you to:

- Create cycle count tasks for specific items, reduce non-essential counts, and increase the productivity.
- Create cycle count tasks for specific items that generates tasks for all locations where the SKU is located at that time.

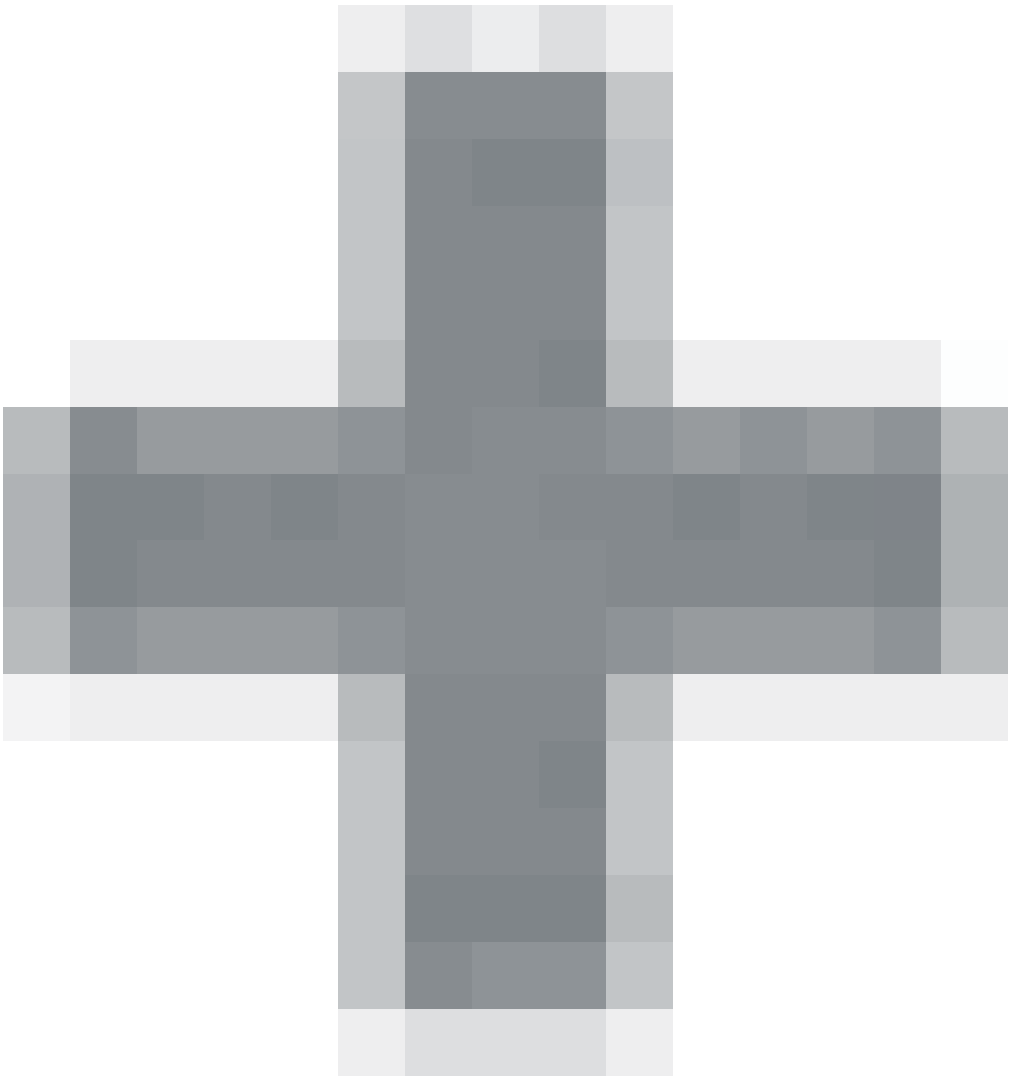
Note: Item specific Cycle Counting for a location is a guided counting and can be implemented via tasking mode (generated from a CC task template) only. You cannot perform item specific guided cycle count in standalone mode.

Item-Specific Cycle Count Tasks Creation

To create item-specific cycle count tasks, do the following:

1. Go to **Task Creation Template (TaskCreationView)** UI.

2. Click the

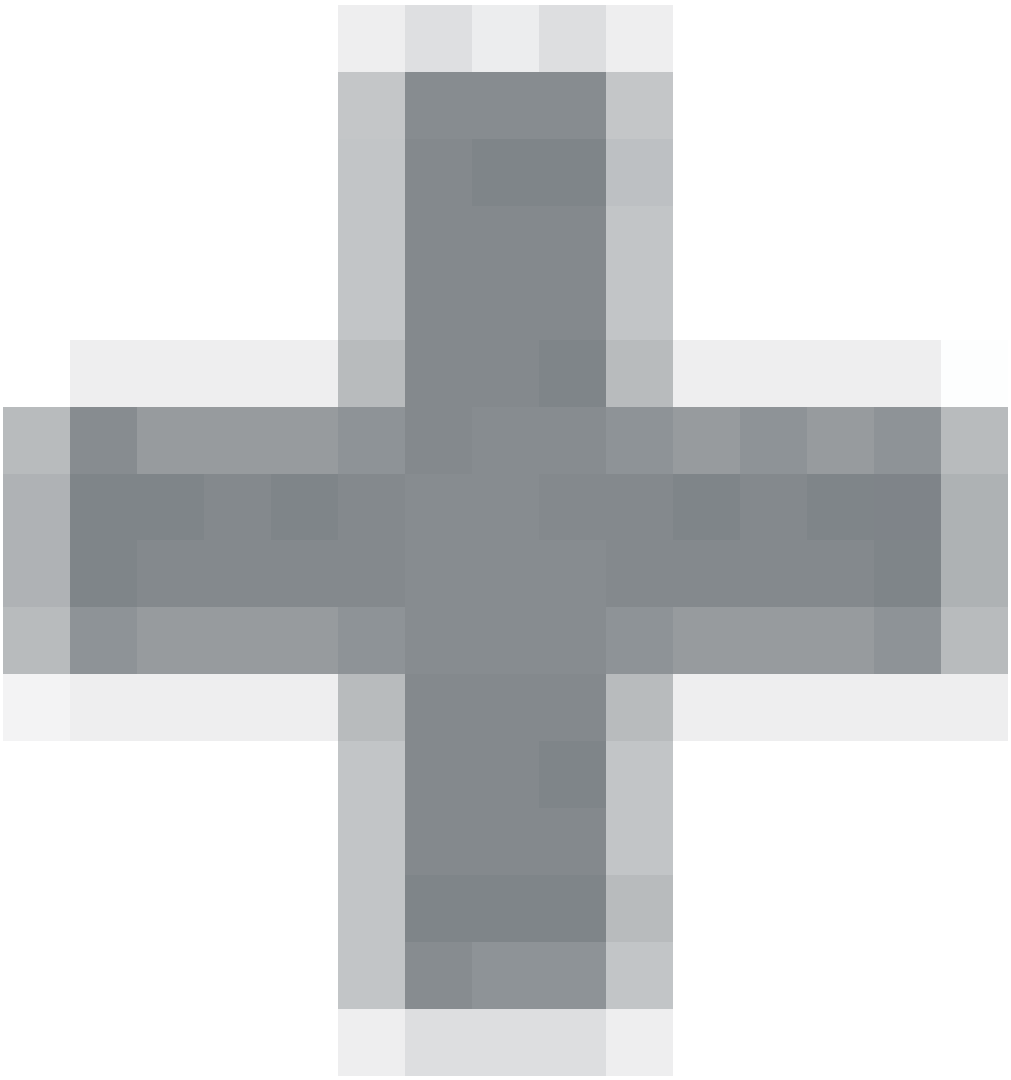


(Create) icon to create a CC Task template.

Note: You can edit the previously created CC Task template also.

3. Select the created CC Task Template and click details icon.

4. On the **Task Creation Template** > **Details** screen, click



(Create) icon and configure the task creation template details with “CC-LOCN-BY-ITEM” task type.

> **Note:** You are not allowed to configure both “CC-LOCN-BY-ITEM” task type and either of the other cycle count task types (CC-LOCATION, CC-LOCATION-DTL, or CC-LOCN-LPN-CNT) in a single CC task template. If you configure both, the system displays an error message “Cannot mix item specific task type with other CC task types in a single template”.

5. To configure the item specific selection criteria for the CC task template, select the “CC-LOCN-BY-ITEM” record and click **Item Selection Criteria** action button. Post configuring the item specific selection criteria, click **Save**.

   Note:
   - Item selection Criteria action button is enabled only for the “CC-LOCN-BY-ITEM” task type and it is mandatory to configure for the “CC-LOCN-BY-ITEM” task type. For the “CC-LOCN-BY-ITEM” task type, the “Item Selection Criteria” action button lists all item specific attributes. Selecting “Item Selection Criteria” shortlists all the items matching the criteria and creates CC-LOCN-BY-ITEM cycle count task for those items.
   - “Item Selection Criteria” column displays the selection condition provided in the “Item selection Criteria” action button.

6. On the **Task Creation Template** > **Details** screen, to configure the location specific selection criteria for the CC task template, select the “CC-LOCN-BY-ITEM” record and click **Selection Criteria** action button. Post configuring the location specific selection criteria, click **Save**.

   Note:
   - For the “CC-LOCN-BY-ITEM” task type, the “Selection Criteria” action button lists all location specific filters. Also, “Selection Criteria” is non-mandatory to configure for the “CC-LOCN-BY-ITEM” task type. If you don’t provide the “Selection Criteria”, the system creates tasks for all locations where the shortlisted items are located at the time of running the task creation template.
   - By default, the “Item Selection Criteria” and “Selection Criteria” columns are available on the data grid. If you uncheck either of these columns, the system excludes the unchecked criteria condition (though it is configured) for task creation. So, make sure that both “Item Selection Criteria” and “Selection Criteria” columns are available on the data grid.

7. After configuring the CC Task Creation Template, on the **Task Creation Template UI**, select the configured “CC-LOCN-BY-ITEM” task type task template and click **Run Template** action button.

   The system creates the item specific cycle count tasks for the matching items.

   Note: If you run a CC type task creation template (configured with the “CC-LOCN-BY-ITEM” task type) without item selection criteria configuration, the system displays an error message “CC Template does not have an item selection rule”.

The system creates multiple CC-LOC-BY-ITEM tasks for a location, provided there is no common item for which an existing cycle count task is available for that location. Although multiple “CC-LOC-BY-ITEM” tasks can be created for the same location, if an existing “CC-LOC-BY-ITEM” task is in progress, the system restricts another “CC-LOC-BY-ITEM” task from executing for the same location.

The following table details the “CC-LOCN-BY-ITEM” task creation behavior when a location already has an existing item driven cycle count task:

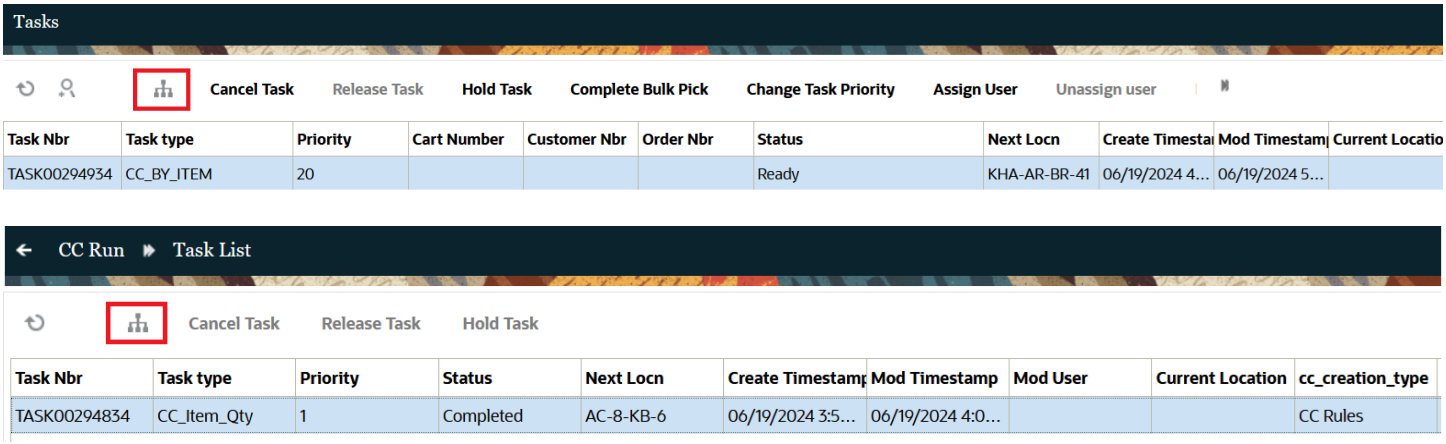
Existing Task Number	Cycle Count Location	Existing Task SKUs	Shortlisted New SKUs for "CC-LOCN-BY-ITEM" task creation	New Task Cycle Count Location	Behavior
TASK01	LOC01	ITEM01	ITEM02	LOC01	The system allows “CC-LOCN-BY-ITEM” tas ITEM02.

TASK01	LOC01	ITEM01, ITEM03, ITEM05	ITEM02	LOC01	The system allows “CC-LOCN-BY-ITEM” tas ITEM02.
TASK01	LOC01	ITEM01, ITEM03, ITEM05	ITEM03, ITEM06	LOC01	The system restricts “CC-LOCN-BY-ITEM” t ITEM03 and ITEM06.
TASK01	LOC01	ITEM01, ITEM03, ITEM05	ITEM03, ITEM06	LOC01, LOC02	The system restricts “CC-LOCN-BY-ITEM” t ITEM03 and ITEM06. The system allows “CC-LOCN-BY-ITEM” tas ITEM03 and ITEM06.

If a location has existing cycle count tasks for certain items, the system restricts the creation of new “CC-LOCN-BY-ITEM” tasks for the same items in that location. The system leverages existing tasks to avoid duplication, ensuring efficient task management and preventing unnecessary repetitions. If the system fails to create “CC-LOCN-BY-ITEM” tasks, it records CC logs “Location %s skipped. CC Task %s with same items exists.” for the skipped locations.

You can view the created item specific cycle count task details (specific items that are shortlisted based on the item selection criteria) on the **Tasks (TaskView) > Task Detail** screen or **CC Run (CCRunView) > Task List > Task Detail** screen. Also, when you run a CC task template, under the **CC Run > CC Logs** screen, you can view all sequential transactions done for that CC task template.

Note: The task detail button is enabled only for the “CC-LOCN-BY-ITEM” task.



Mobile Cycle Count Location Screen Flow (Active Location)

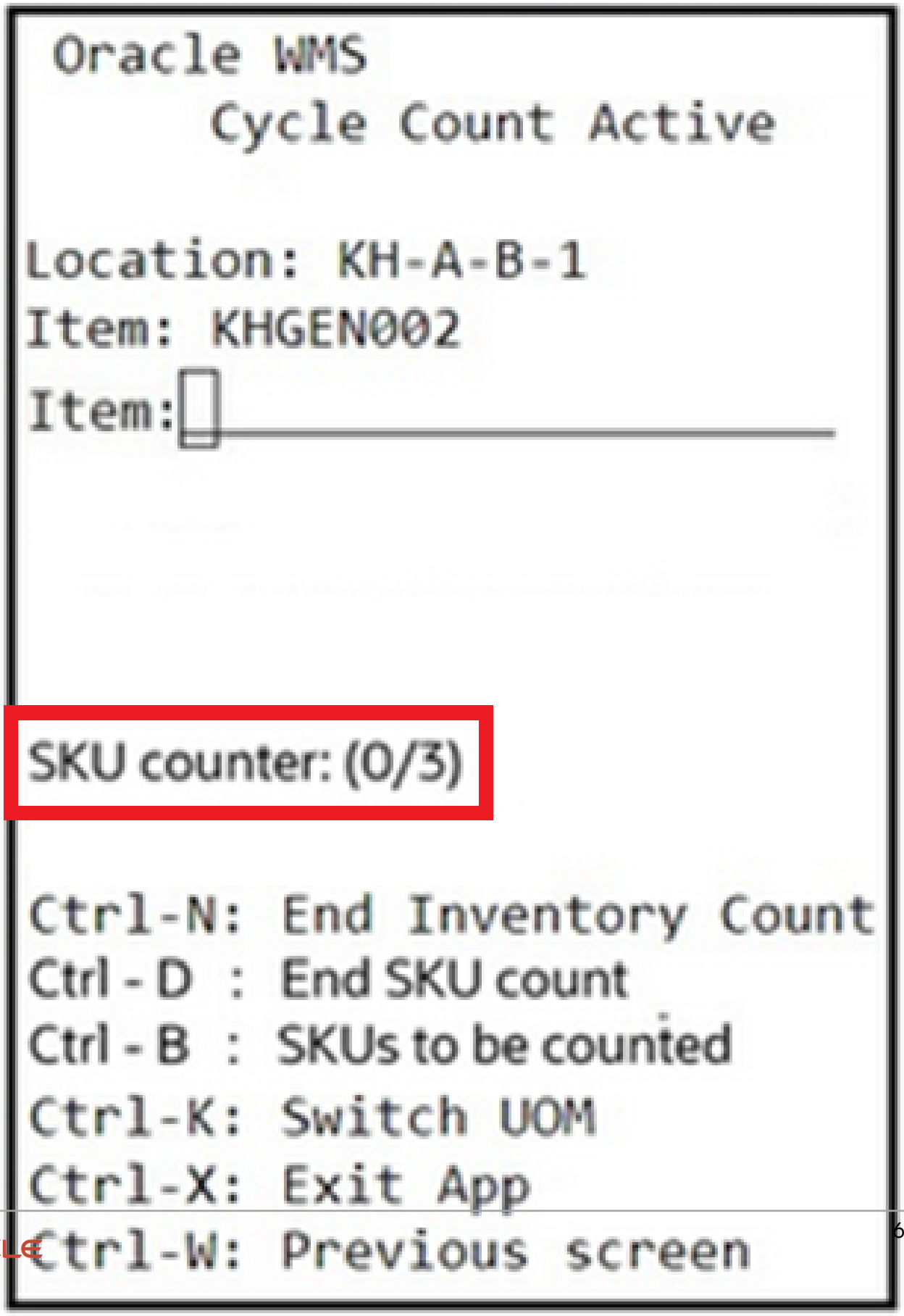
1. Launch the **Mobile Execute Task (rf.outbound.cwrfexecutetask)** transaction.

2. Scan or enter the created item specific cycle count task number.

> **Note:** Executing multiple “CC-LOC-BY-ITEM” tasks simultaneously for a single location is not permitted. If a “CC-LOC-BY-ITEM” task is already in progress for a location, the system will not allow any additional “CC-LOC-BY-ITEM” tasks to be executed for the same location. In this case, if you scan the location, the system displays a hard error message “A CC-LOC-BY-ITEM task is already in progress for this location”.

The system redirects you to the **Mobile Cycle Count Location (rf.inbound.cwrfcyclecountlocn)** transaction and navigates you through the counting process, prompting you with the SKUs to be counted.

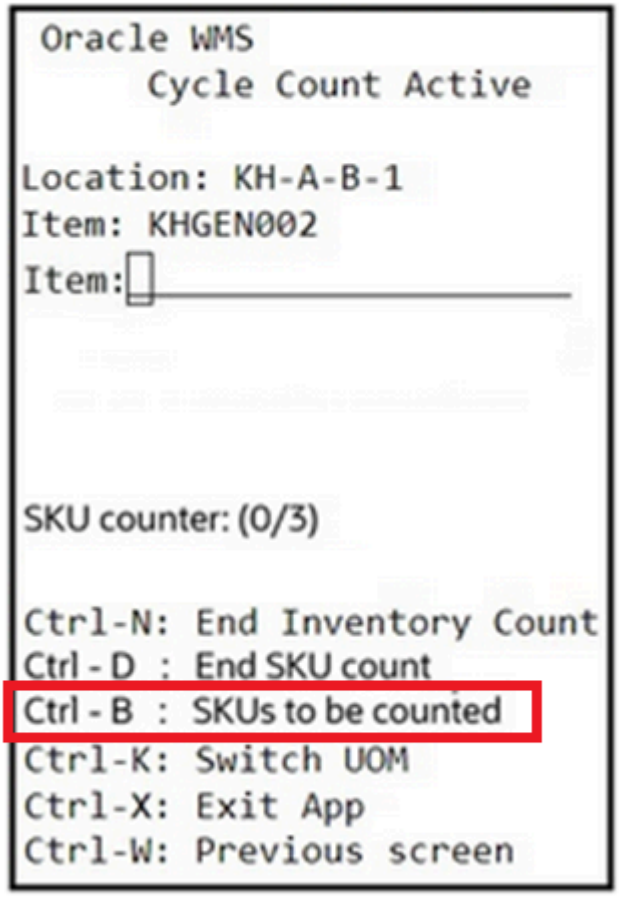
You can observe the scanned item count (unique SKUs that are counted/total number of unique SKUs in the task detail) in the SKU counter display.


Oracle WMS
Cycle Count Active
Location: KH-A-B-1
Item: KHGEN002
Item:
SKU counter: (0/3)
Ctrl-N: End Inventory Count
Ctrl-D : End SKU count
Ctrl-B : SKUs to be counted
Ctrl-K: Switch UOM
Ctrl-X: Exit App
Ctrl-W: Previous screen

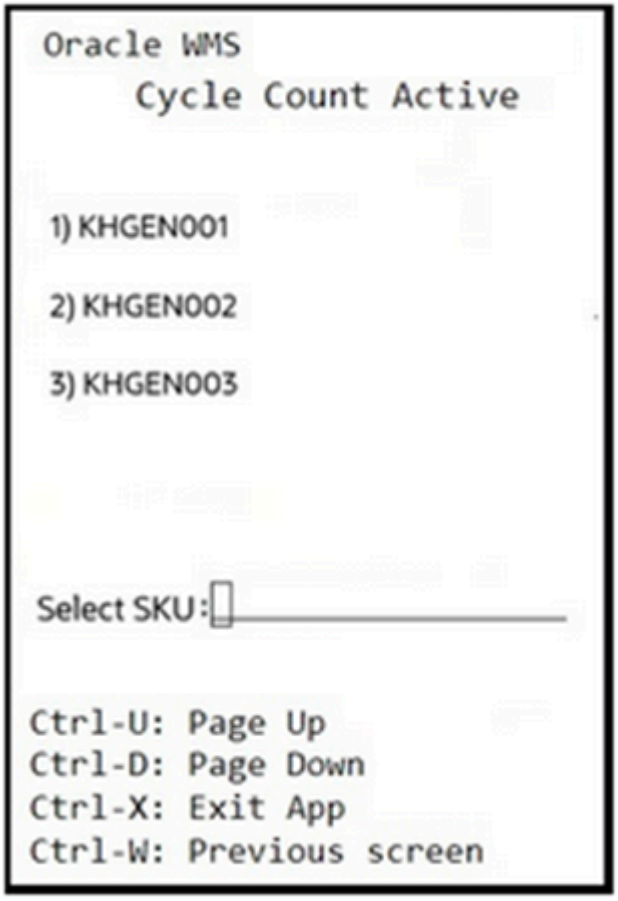
3. Scan or enter the item to confirm and proceed for counting.

   You can use **Ctrl-B: SKUs to be counted** hotkey to display all shortlisted SKUs present in the scanned CC-LOCN-BY-ITEM task detail.

Ctrl-B: SKUs to be counted



After Pressing Ctrl-B Hotkey



   You can enter the item index number (1,2, 3....) in the “Select SKU” field and proceed for cycle counting of that item.

4. After counting a SKU, press **Ctrl-S: End SKU count** hotkey to end the count for the SKU and proceed to count the next SKU present in the task detail.

   During the transaction, the system navigates you with the items to be scanned. Once you end the SKU count for a SKU, the system guides you to scan the next SKU.

> **Note:** In SKU-Quantity mode, after ending the SKU count for the last SKU in a task, the system ends the task automatically. As this is a guided SKU counting, “CTRL-E: End location count” hotkey is not available for the “CC-LOCN-BY-ITEM” task execution. After counting all required SKUs in the task, the system auto closes the location count.

Key Notes for Consideration ("CC-LOCN-BY-ITEM" task):

- For the "CC-LOCN-BY-ITEM" task type, you can add the **Mobile Cycle Count Location (rf.inbound.cwrfcyclecountlocn)** screen only. If you add a screen that is not configured with the **rf.inbound.cwrfcyclecountlocn** module, the system displays an error message.
- During the transaction, if you scan an item that is not present in the executing task, the system displays a hard error "Scanned SKU is not in task".
- During the transaction, when an SKU counting is in progress, without ending the in progress counting SKU, if you scan another SKU (present in the executing task), then the system displays an error message "Scanned SKU does not match with the SKU being counted".
- If you scan a counted SKU during the transaction, the system displays a warning message "%SKU already counted. Do you want to override the count of this SKU?".
- There is no impact of the screen parameter "*update-locn-invn-mode*" on the "CC-LOCN-BY-ITEM" task. If you scan an SKU (multiple inventory combinations), the system updates the unscanned inventory count to "0".
- In SKU-Quantity mode, you are required to press **CTRL-S** hotkey to end the SKU being counted and to proceed for the next SKU prompt. Once all SKUs are counted from the list, pressing **CTRL-S** hotkey ends the cycle count task automatically. When screen parameter "*qty-uom*" is set to "infer UOM from item barcode", the system displays both **CTRL-N** and **CTRL-S** hotkeys. The **CTRL-N** hotkey allows you to end the inventory count of the SKU being prompted (SKU with the selected attribute combination) whereas **CTRL-S** ends the count of SKU being prompted.
- In SKU-Scan mode, 'Total quantity counted' label displays the quantity of specific SKUs that are being counted. Unlike the location level counting, the label does not show the total quantity count of all SKUs in a cycle count task. It displays the count only for the SKU in focus and gets reset after you press **CTRL-S**.
- When ending a SKU count during an item-driven cycle count, the system displays a warning message if one or more expected inventory lines are not counted. This prevents missing of uncounted inventory lines for a SKU at a location, reducing post-count discrepancies. This is applicable only for item-driven cycle counts, including both tasking and non-tasking modes (location-driven cycle count with "update-locn-invn-mode" = "Counted Items only") modes.

After performing the **Mobile Cycle Count Location** transaction with a "CC-LOCN-BY-ITEM" task, on the **Cycle Count Adjustment** UI, the system records the expected and counted quantities of SKUs (part of the "CC-LOCN-BY-ITEM" task) that are counted for the scanned location in deferred mode.

In the immediate mode, the system updates the inventory for the counted SKUs directly without any approval. In the immediate or deferred mode, the inventory updates are limited to shortlisted SKUs only.

To identify the cycle count adjustment approval records that are generated for an item specific cycle count, you can filter the cycle count adjustment approval records with "CC-LOC-BY-ITEM" task type using the **Task Type** filter in the **Cycle Count Adjustment** UI.

If you reject a count record, based on the Cycle Count trigger configuration, the system creates a CC type task (existing CC task types only not "CC-LOC-BY-ITEM" task type) for the location. For more details, refer *Cycle Count Inventory Updates*.

Mobile Cycle Count Location Screen Flow (Reserve Location)

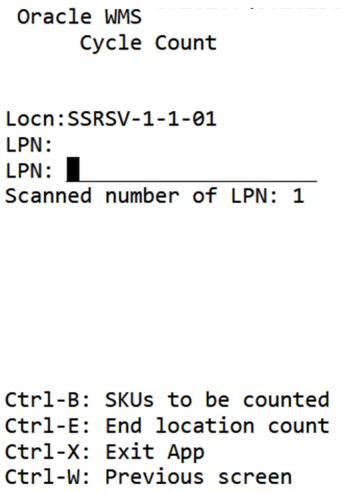
After creating "CC-LOC-BY-ITEM" tasks, you can perform cycle count for the shortlisted items in a reserve location. To perform cycle count for a reserve location, follow these steps:

1. Launch the **Mobile Execute Task (rf.outbound.cwrfexecutetask)** transaction.
2. Scan or enter the item specific cycle count task number.
   The system redirects you to the **Mobile Cycle Count Location (rf.inbound.cwrfcyclecountlocn)** transaction.

3. Scan or enter the location to confirm.
4. Scan or enter an LPN.

Note:

- For SKU-Qty and SKU-Scan modes, LPNs are not defaulted or guided.
- In LPN scan mode (default behavior or when the “content-count” screen parameter is set to Blank), after scanning a Cycle Count location, the system guides you to scan anticipated LPNs (physically present in the scanned location). On counting the guided LPN, the system increases the LPN count. For a multi-SKU LPN, counting the LPN increases the inventories for all shortlisted SKUs present in the scanned task detail. You can scan multiple guided LPNs to complete the cycle count. If you are in LPN scan mode, you can skip steps 5 to 8.

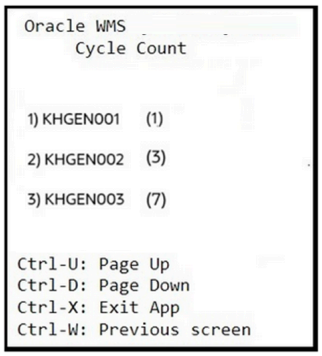


If you scan a new, cancelled, or unanticipated LPN in LPN scan mode, the system displays an error message.

5. Scan or enter an item to confirm and proceed with the counting.

   Note: During the transaction, if you scan a SKU that is not in focus or display, the system displays an error "SKU count in progress, cannot override SKU".

   You can use the **Ctrl-B: SKUs to be counted** hotkey to view all shortlisted SKUs present in the scanned CC-LOCN-BY-ITEM task detail, along with the counted LPNs count next to each SKU.



6. In SKU-Qty mode, scan or enter the quantity to confirm.

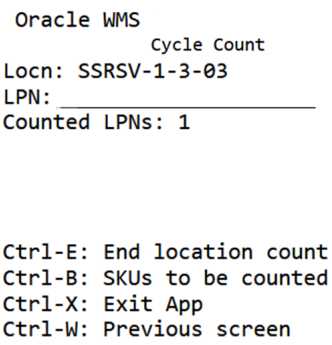
   Note: In SKU-Scan mode, you can scan the SKU multiple times depending on the available quantity.

7. After counting a SKU, press **Ctrl-S: End SKU count** hotkey to end the count for that SKU and proceed to the next SKU in the scanned LPN.

   During the transaction, the system navigates you through the items to be scanned. Once you end the SKU count for one SKU, the system updates the counted LPNs and guides you to the next item scan.

8. After counting all SKUs, press **Ctrl-P: End LPN Content Count** hotkey to end the count for the scanned LPN and proceed to count the next LPN.

   On completing the SKU count in an LPN, the system prompts you to scan the next LPN. You can observe the Counted LPNs count displayed in the transaction.



   In the Mobile Cycle Count Location module **rf.inbound.cwrfcyclecountlocn**, if you enable the screen parameter "allow-new-lpn-scan", you can scan new or cancelled LPNs in both tasking and non-tasking modes to perform detail level cycle count.

   After scanning a cancelled or new LPN and accepting the warning message "Scanned LPN is not present in task, proceed?", the system loops you through all the items present in the task detail. You can press **Ctrl-S: End**

SKU count hotkey to ignore a SKU that is not relevant to the LPN. Since you are scanning a new or cancelled item, post completion of cycle count, the system updates the expected quantity as “0”.

Key Notes for Consideration

- For both cancelled and new LPNs, after entering the quantity for each SKU, the system prompts you to recount the inventories. (When the screen parameter "allow_recount" = "Yes" or Blank)
- After counting a cancelled or new LPN, the system updates that corresponding LPN to **Located** status and creates records in the Reserve Inventory (in immediate mode). In deferred counting mode, the LPN will be created only when the corresponding CC adjustment records are approved.
- If a cycle count location has a lock code, the system inherits the lock code to the counted cancelled or new LPNs and the system records the inventory history transaction “IHT-23 - Lock Container - After ASN Verification”.
- During the cycle count, you can scan reusable totes associated with cancelled or new LPNs.
- In deferred mode, after counting a cancelled or new LPN, the system writes “Cancelled LPN counted” or “New LPN created” message respectively on the **Cycle Count Adjustment Header (CCAdjustmentHdrView)** and **Cycle Count Adjustment Detail** warning hyperlinks.
- For a “CC-LOCN-BY-ITEM” task, if you scan a new or cancelled LPN, the system displays a warning message “Scanned LPN is not present in task, proceed?”. You can change this warning message to a hard error to restrict the scanning of unanticipated LPNs.

You can scan unanticipated LPNs (LPNs that are not expected at the location) via item driven reserve location cycle count. In this case, the system loops you through all the SKUs in the scanned task detail. You can press **Ctrl-S: End SKU count** hotkey for any SKU that is not relevant to the scanned LPN and continue with the counting. For SKUs that are physically present in the scanned LPN, you can confirm the SKUs and proceed with the cycle count.

Note: Inventory adjustment updates are limited to counted SKUs only.

The following table explains the Location and LPN-SKU combination scan behavior:

Scanned LPN	Scanned SKU	Behavior
Anticipated for the Location to complete “CC-LOCN-BY-ITEM” task	Scanned a SKU that is present in the task	The system proceeds with cycle count (re flow).
Unanticipated for the location but present in the facility (LPN is physically present in location)	Scanned a SKU that is present in the task	The system displays a warning message ‘ LPN is not present in task, proceed?”. You update this warning message as a hard er restrict unanticipated LPN scan. Upon sca system loops you through all the shortlist (present in a task detail)
Anticipated/unanticipated in the cycle count location	Scanned a SKU that does not present in the task	The system displays an error message “S SKU is not in task”.

9. After counting all LPNs, press **Ctrl-E: End Location count** hotkey to end the count for the scanned location.

During the transaction, if you end the location count without counting all anticipated SKUs, the system displays a warning message “LPNs not counted will be marked as lost. Proceed further? %s”. For a multi-SKU LPN, if the anticipated SKUs (from the task detail) are not scanned, the system reduces the LPN inventories only for those SKUs. The system does not impact the LPN inventory for the SKUs that are not present in the task detail. When

a multi-SKU LPN goes to lost status via item driven reserve location cycle count, the system updates the LPN inventories to 0.

Key Notes for Consideration

- Inventory adjustment updates are limited to filtered or shortlisted items (from the task detail).
- You can scan an anticipated SKU (present in the scanned task detail) to count for any scanned LPN in the CC-LOC-BY-ITEM task, even if the scanned SKU is unanticipated or not part of the scanned LPN.
- If you scan a SKU that has already been counted for the scanned LPN, the system displays an error message "%SKU already counted. Do you want to override the count of this SKU?".
- If you skip confirming a SKU or end a SKU count without entering quantity, the system displays a warning message "Uncounted qty will be reduced from inventory for %SKU, proceed?". On accepting the message, the system updates the inventory of that SKU to 0 for that LPN.
- Like an active location, the screen parameter *"update-locn-invn-mode"* does not affect the "CC-LOCN-BY-ITEM" task. SKUs that are not present in a CC-LOC-BY-ITEM task are not impacted for a location. However, you must scan all inventories of the SKUs present in the task detail. Otherwise, the system updates the uncounted inventories to 0 (applicable only to the shortlisted SKUs).
- You are allowed to scan Lost LPNs if the scanned LPNs contain shortlisted SKUs as per task detail.
- When the screen parameter "*qty-uom*" is set to "infer UOM from item barcode" the system displays both **Ctrl-N** and **Ctrl-S** hotkeys. **Ctrl-N** hotkeyallows you to end the inventory count of the SKU being prompted (SKU with the selected attribute combination) whereas **Ctrl-S** ends the count of the prompted SKU.
- Currently, pallet prompt is not supported for the item driven reserve location cycle counts. However, you can scan LPN as a physical pallet and LPNs within a pallet.

IHT Updates

On performing the **Cycle Count Location (rf.inbound.cwrfcyclecountlocn)** transaction, the system records the Inventory history transactions. To differentiate the cycle counting type, REF CODE 15 and REF Value 15 are available in the Inventory History transactions.

The system updates the values of fields REF CODE 15 and REF Value 15 based on the cycle count type as mentioned below:

Column	Value
REF CODE 15	"CCT (Cycle Count Type)" for 42-Cycle Count, 19- Inventory Adjustment, 37-Active Location Cycle Count Complete, 41 - Cycle Count - IBLPN Counted, 38 - Reserve Location Cycle Count Complete, 53 - Cycle Count - Reserve SKU Counted, 40 - IBLPN Lost, and 39 - Cycle Count - Lost IBLPN counted.
REF Value 15	• ITEM - If IHTs are generated from the CC-LOC-BY-ITEM task. • ITEM - If IHTs are generated from location level cycle counting with "Update inventory mode" set to Counted SKU or Counted Inventory. • Location - If IHTs are generated from location level cycle counting.

Execute Simultaneous Item Driven Cycle Count Tasks for a Location

The system allows you to perform multiple item driven cycle count tasks for various items in the same location simultaneously. You can initiate counts for different items at various instances, regardless of any pending cycle count adjustments or in-progress item driven cycle count tasks for a particular location.

This helps you to:

- Quickly count various items in a single location through multiple cycle count tasks, irrespective of any pending cycle count adjustment records for that location.
- Perform precise inventory cycle counts, ensuring accuracy even in large locations.
- Prioritize counts based on attributes such as velocity code of item at different instances.
- Optimize counting schedules and avoid delays, resulting in a smoother cycle count process.

On configuring a CC task creation template, you can create multiple “CC-LOC-BY-ITEM” tasks for a location, if there is no item concurrency. Although, multiple “CC-LOC-BY-ITEM” tasks can be created for the same location, if an existing “CC-LOC-BY-ITEM” task is in-progress, the system restricts another “CC-LOC-BY-ITEM” task execution for the same location.

By default, if a location has a pending item driven cycle count approval, on executing a “CC-LOC-BY-ITEM” task for the same location, the system displays an error message “Cycle Count approval pending for the Location. Do you wish to proceed with the count?”. You can set this message as a warning and continue with the count if needed.

To enable simultaneous cycle counting for a location, irrespective of in-progress cycle count tasks or pending “CC-LOC-BY-ITEM” cycle count approvals, follow these steps:

1. Go to the **Message Codes (MessageCodeView)** UI.
2. Configure the following messages as warnings.

Message Code	Message
4669	Cycle Count approval pending for the Location. Do you wish to proceed with the count?
4328	A %TASK_TYPE task is already in progress for this location.

To update a message as a warning, do the following:

a. Select the message you want to edit.
b. Click **Edit Facility Message Config** action button.
c. In the “Edit Facility Message Config” pop-up:
   - Select a Facility.
   - Check the **Enabled** checkbox.
   - Uncheck the **Auto Reject** checkbox.
d. Click **Submit**.

> **Note:** By default, the above error messages are set as hard error messages. Ensure that you have configured the above messages as warnings.

After configuring the above hard error messages as warning messages, you can accept the warning messages and proceed with the cycle count tasks.

On completing the tasks, the system updates the inventory or creates cycle count adjustment records in ascending order of task execution (if there is no item concurrency). The system creates multiple CC Adjustment header records per executed tasks. You can review the counted item inventory details in the **Cycle Count Adjustment Details** screen.

Note:

- Simultaneous cycle counting is applicable only for CC-LOC-BY-ITEM tasks through both Mobile Handheld device and Cycle Count List API.
- Inventory updates are limited to the counted items within a location.
- The system updates inventory or creates cycle count adjustment records based on immediate or deferred mode.
- The system allows creation of multiple CC Adjustment Header records only for CC-LOC-BY-ITEM tasks. If a location has a pending cycle counting task, or cycle count adjustment records for the entire location (location driven count), the system doesn't allow you to create/execute item driven cycle count task for that location.
- The system allows executing multiple item driven cycle count tasks for a location, as long as the same item is not pending for cycle count approval.
- The system creates multiple cycle count adjustment records for the same location (with different group numbers) when counts are from different cycle count run. You can multi-select the cycle count adjustment header records and perform approve/reject/cancel actions from the **Cycle Count Adjustment Header**. However, approving or rejecting a single header record may not release the CC Lock on the location, since multiple header records are created for a single location.
- Standalone location-level deferred counting is not permitted, if the location has pending cycle count tasks or cycle count adjustment approvals.

Example: Location has multiple "CC-LOC-BY-ITEM" tasks and the available inventory records have multiple SKUs with different attributes.

Location Inventory (Before Cycle Count):

Location	SKU	Original Quantity	Current Quantity	Batch
LOC01	SKU01	50	50	BAT01
LOC01	SKU01	100	100	BAT02
LOC01	SKU02	50	50	BAT03

Cycle Count Adjustment Records (Post task execution in Deferred mode):

After executing the tasks TASK01 and TASK02 simultaneously for SKU01 and SKU02 respectively. The system creates the following records (in deferred mode):

Location	Task	Task type	SKU	Counted Quantity	Batch	Create Us
LOC01	TASK01	TYPE01	SKU01	75	BAT01	XXXX01
LOC01	TASK01	TYPE01	SKU01	75	BAT02	XXXX01
LOC01	TASK02	TYPE02	SKU02	150	BAT03	XXXX02

Location Inventory (Post task execution in Immediate mode):

The system updates the count details simultaneously in the ascending order of task execution.

Location	SKU	Original Quantity	Current Quantity	Batch	Create User
LOC01	SKU01	50	75	BAT01	XXXX01
LOC01	SKU01	100	75	BAT02	XXXX01
LOC01	SKU02	50	150	BAT03	XXXX02

Integrate Cycle Count with Warehouse Control Systems

To streamline the cycle count process, you can integrate external Warehouse Control Systems (WCS), such as Automated Storage and Retrieval Systems (ASRS), Robotic arms, and Drones with Warehouse Management (WMS).

This integration allows seamless exchange of cycle count instructions between the WMS and WCS systems. This ensures effective cycle count execution and maintaining precise and up-to-date inventory data, ultimately enhancing the overall inventory accuracy of the warehouse.

With this integration, WMS can orchestrate cycle counting and send the required information to WCS and cycle counting performed by WCS can be recorded in the WMS.

Cycle Count Task Info Generation with MHE Systems

The “Cycle Count Task Info” output interface allows WMS to send the cycle counting instructions to the WCS. It contains the list of cycle count tasks that need to be executed externally (outside WMS).

To generate the output interface file “Cycle Count Task Info”, do the following:

1. Go to the **Task Creation Template (TaskCreationView)** UI.

2. Click the



icon and create a CC Task template.

Note: You can edit the existing CC Task template also.

3. Select a CC Task Template and click details icon.

4. On the **Task Creation Template** > **Details** screen, click



icon and configure the task creation template details with the following configuration:

- Enable the checkbox “Release Cycle Count Task Info File”
- Select an MHE Code from the “MHE System” drop-down

Note:

- If you configure “CC-LOCN-LPN-CNT” task type, when the “Release Cycle Count Task Info File” flag is enabled, the system displays an error message “Cannot use container count task type when 'Release Cycle Count Task Info File' is enabled”.
- If the cycle count task template detail is enabled with “Release Cycle Count Task Info” flag, only then the system generates the “Cycle Count Task Info” JSON file.
- The drop-down field “MHE System” selection is optional. Select an MHE code that you want to integrate and make sure that the selected MHE system is configured for the “Cycle Count Task Info” output interface. If the selected MHE code is blank, make sure the output interface “Cycle Count Task Info” is configured for blank.
- The system fetches these MHE codes from the **MHE System (MheSystemView)** UI.
- The system generates and integrates the “Cycle Count Task Info” output interface file with the MHE system configured in the **Output Interface Configuration (OutputInterfaceConfigView)** UI.

5. Click **Save**.

   Note: You must configure either the “Item Selection Criteria” or the “Selection Criteria” for the task creation template details.

6. Once the configuration is complete, select the newly created task creation template on the **Task Creation Template** UI and click the **Run Template** action button.

   The system creates cycle count tasks based on the configured task creation template. It creates the “Cycle Count Task Info” file with “Create” action code (if cycle count tasks are created in Ready/Held status and are enabled with “Release Cycle Count Task Info File” flag).

You can view the created cycle count tasks on the **Tasks (TaskView)** UI, along with the **MHE System** and **Release Cycle Count Task Info File** columns. Also, you can view the created cycle count tasks with the **Release Cycle Count Task Info** column on the **Cycle Count Run (CCRunView)** > **Task List** screen.

To regenerate the “Cycle Count Task Info” file for including any cycle count tasks available during the task creation process, you can utilize **“Regenerate CC Task Info”** action button on the **Cycle Count Run** UI.

Key Points for Consideration:

- If you cancel a cycle count task in the **Task** UI, the system creates the “Cycle Count Task Info” JSON file with “Cancel” action code. So that MHE does not execute the task. However, if the MHE proceeds with executing the task despite the cancellation, it will be treated as a standalone task initiated by the MHE.
- The system populates the item list in the “Cycle Count Task Info” JSON output interface file only for the item driven cycle count tasks.

- When attempting to execute a cycle count task via the Mobile **Execute Task** transaction, if the “Release Cycle Count Task Info File” flag is enabled, the system displays an error message “Cannot execute task as its exposed to external system”.
- If you click “Regenerate CC Task Info” on the Cycle Count Run UI and there are no eligible cycle count tasks for file generation (“Release Cycle Count Task Info” flag is disabled for all task), the system displays an error message “No eligible TASKs found”.
- If you regenerate cc task info for multiple CC Run Numbers, the system displays the successfully processed task count in a pop-up message “Cycle Count Info file generated for %SUCCESS task out of %TOTAL_CNT”.
- The system currently generates the “Cycle Count Task Info” output interface file, that includes cycle count task and location details, when the “Release Cycle Count Task Info File” flag is enabled.
- You can define the MHE system in the **Task Creation Template (TaskCreationView)** > **Details** screen. Then, the system generates one common output interface file per task creation template. Now, there is no selection criteria for the “Cycle Count Task Info” output interface target. Hence, we recommend utilizing one MHE code for each task creation template.
- The MHE code generated in the “Cycle Count Task Info” output interface file should match the MHE code provided in the output interfaced target.

Generation of Cycle Count Task Info on Rejection of MHE triggered Counts.

Your warehouse uses Material Handling Equipment (MHE) systems to perform cycle counts and send count results to WMS. When you reject an MHE-driven cycle count adjustment, WMS can create the recount task and send Cycle Count Task Info back to the related MHE system. This keeps WMS and MHE aligned during the recount process and reduces the need for manual follow-up when an MHE-performed count needs correction. This functionality enables:

- View the MHE system on cycle count adjustment records created from MHE count results.
- Search cycle count adjustments by MHE System.
- Send Cycle Count Task Info to MHE when an eligible MHE-driven adjustment is rejected and WMS creates a recount task.
- Capture the MHE System in Inventory History Transactions for completed active and reserve location cycle counts.
- Use Reject/Recount APIs to create item-driven recount tasks by passing a cycle count task type and priority.
- Use the Redwood Cycle Count Adjustment UI to choose whether to create item-level or location-level recount tasks.
- Select Cancel in the Redwood task type popup to stop the rejection without making updates.

Before you begin, ensure you have:

- The MHE System is sent in the Cycle Count List API payload.
- The applicable recount trigger is enabled, such as Recount Location or Recount Location Detail.
- The cycle count task setup supports releasing Cycle Count Task Info to MHE.
- The rejected adjustment can create a recount task. If WMS does not create a task, it does not send Cycle Count Task Info.
- You use the Redwood UI for the enhanced item-level recount selection.

> **Note:** Existing cycle count adjustment records created before this enhancement may not have an MHE System. WMS does not send Cycle Count Task Info for those records.

Reject an MHE-Driven Cycle Count Adjustment in the UI

1. Open the Cycle Count Adjustment UI.
2. Search for the required adjustment. You can use the MHE System field to find MHE-driven counts.
3. Select one or more pending cycle count adjustment records.
4. Select Reject.
5. If the selected count is item-driven and item-driven recount is enabled, WMS opens the Select a Task Type popup.
6. Choose how WMS should create the recount task:
   - Select Create CC Item Level Task as Yes to create item-driven recount tasks. Then select the task type and enter the task priority.
   - Select Create CC Item Level Task as No to create location-driven recount tasks based on the recount trigger.
7. Select Submit. WMS rejects the adjustment, creates the eligible recount task, and sends Cycle Count Task Info to the MHE System recorded on the count.
8. Select Cancel, if you want to return to the Cycle Count Adjustment UI without rejecting the count or creating recount tasks.

Cycle Count Reject or Recount Through APIs

1. You can use the reject or bulk reject API for cycle count adjustments. To create item-driven recount tasks, pass:
   - cc_task_type: the item-driven cycle count task type.
   - priority: the task priority.

   > **Note:** If you pass cc_task_type, you must also pass priority. If you do not pass cc_task_type, WMS follows the default location-level recount behaviour.
2. When the rejected adjustment has an MHE System and WMS creates a recount task, WMS sends Cycle Count Task Info to that MHE system.
3. After the process runs, WMS:
   - Sends Cycle Count Task Info only for eligible rejected records that have an MHE System.
   - Includes item details for item-driven recount tasks.
   - Sends location-level task information for location-driven recount tasks.
   - Updates Inventory History Transactions for active and reserve location cycle count completion with the MHE System when it is available.

For bulk rejections, WMS uses the MHE System from the applicable count record when it generates the Cycle Count Task Info. If the count record does not have an MHE System, WMS does not generate the file for that record.

Cycle Count List API

After completing the cycle count tasks orchestrated in WMS, you can send the cycle count data from WCS to WMS through “Cycle Count List” API in JSON format. Also, WCS can perform standalone cycle counts as well and send the count details to WMS using the same API, without a task number.

URL:

```
POST .../wms/lgfapi/v10/cycle_count_info/cycle_count_list/
```

Note: The Cycle Count List API doesn't support the following:

- LPN Count mode (CC-LOCN-LPN-CNT)
- Counting Consumed LPNs for the “CC-LOCN-BY-ITEM” task type
- Infer UOM from item barcode
- Pallet Scan
- Counting New, Canceled, or Consumed LPNs in the LPN scan mode

For more details about “Cycle Count List” API, refer to the *WMS REST API Guide*.

On successful processing of the payload, the system creates cycle count adjustment records or updates the inventory adjustments based on the deferred or immediate mode. You can view these processed cycle count records on the **From MHE Cycle Count Info (FromMheCycleCountInfoHdrView)** UI. If any failed records, you can select and reprocess these records using the action button **Reprocess Failed Record**.

Note:

- After processing the “Cycle Count List” API, the API honors the existing company and facility parameters “INVN_ADJ_APPROVAL_REQUIRED” to update inventory.
- If you are in immediate mode, the system updates the inventory adjustment without approval. If you are in deferred mode, the system creates the inventory adjustment records for approval.
- For a location driven cycle count (CC-LOCATION), if LPNs are not passed in the payload, the system moves the unscanned LPNs to Lost status.

Cycle Count Adjustment Validations

- After sending Cycle Count Task Info to a MHE system, if you execute a standalone cycle count in WMS, the system displays a warning message. On accepting the warning message, you can proceed with the cycle counting."
- The system handles and processes data from the "Cycle Count List API" in various scenarios:
  - When a cycle count task already exists for a location in WMS, and MHE sends a cycle count list for the same location (standalone count).
  - If WMS has approved or canceled the cycle count adjustment records for a location and MHE sends the cycle count list for the same location.
  - In cases where cycle count adjustment records are rejected, the system generates a new cycle count task as a trigger, and MHE sends the cycle count list for the same location.
  - If you are performing a standalone cycle count in WMS, MHE sends the cycle count list for the same location.
  - If a location doesn't allow multi-SKU, MHE sends a different SKU for the same location in the deferred mode. Note that the system fails the approval of the cycle count record.

- If a location doesn't allow multi-SKU, MHE sends a different SKU than the dedicated one for the same location in the deferred mode. Note that the system fails the approval of the cycle count record.
- MHE sends a cycle count list for a location with a different pack or case quantity than the item's pack or case quantity in the deferred mode. Note that the system fails the approval of the cycle count record.
- If a location has the "restrict_batch_nbr_flg" set to Yes and MHE sends a cycle count list for the same location with multiple batch numbers for the same SKU in the deferred mode. Note that the system fails the approval of the cycle count record.
- If item is tracking batch and expiry and MHE sends a cycle count list with a new batch without an expiry date in the deferred mode. Note that the system fails the approval of the cycle count record.
- If a location has the "restrict_invn_attr_flg" set to Yes and MHE sends a cycle count for the same location with multiple attributes in deferred mode. Note that the system fails the approval of the cycle count record.
- MHE sends a cycle count list for a serial-tracked item with CC UOM is either pack or case quantity in the deferred mode. Note that the system fails the approval of the cycle count record.
- If a location has allocations and MHE sends a cycle count list for the same location in the deferred mode (where the counted quantity is greater than the allocated quantity).
- If a location has inventory from unverified shipments and MHE sends a cycle count list for the same location.
- If the scanned LPN is in "Partially Allocated" or in "Allocated" status and MHE sends a cycle count list for the same location in the deferred mode. Note that the system fails the approval of the cycle count record.

- The system displays an error message and fails the cycle count list for the task or location in the following scenarios:
  - MHE sends a cycle count list with an invalid location.
  - MHE sends a cycle count list with a location linked to a different facility.
  - If you are performing a standalone cycle count (CC adjustment records are in progress status) in WMS and MHE sends a cycle count list for the same location.
  - When cycle count adjustment records are pending for approval and MHE sends a cycle count list for the same location.
  - When a cycle count task is in-progress for a location and MHE sends a cycle count list for the same location.
  - MHE sends a cycle count list with an invalid item.
  - MHE sends a cycle count list for an item count that is associated with a different company than the dedicated company of the location.
  - If a location is not dedicated and MHE sends a cycle count list for an item from a different company than previously counted.
  - In the immediate mode, If the location doesn't allow multi-SKU and MHE sends a cycle count list for an item that differs from the previously counted item. The system processes the records if the location is empty or the scanned SKU matches the location's SKU.
  - In the immediate mode, If the location doesn't allow multi-SKU and MHE sends a cycle count list for a SKU other than the dedicated one. The system processes the records if the scanned SKU matches the dedicated SKU.
  - MHE sends a cycle count list for a location with a different pack or case quantity than the item's pack or case quantity in the immediate mode.
  - If an item doesn't support decimals and MHE sends a cycle count list with the counted quantity in decimals for the same item.
  - If a location has the "restrict_batch_nbr_flg" set to Yes and MHE sends a cycle count list for the same location with multiple batch numbers for the same SKU in the immediate mode.
  - If item is tracking batch and expiry and MHE sends a cycle count list with a new batch without an expiry date in the immediate mode.
  - If a location has the "restrict_invn_attr_flg" set to Yes and MHE sends a cycle count for the same location with multiple attributes in immediate mode.
  - If the company parameter "SERIAL_NUMBER_TRACKING_LEVEL" set to 2 and MHE sends a cycle count list for a serial tracking item without serial numbers.
  - MHE sends a cycle count list for a serial-tracked item with a serial number that is associated with an inventory record of a different facility.
  - MHE sends a cycle count list for a serial-tracked item with CC UOM is either pack or case quantity in the immediate mode.
  - In cases where the count mode is immediate, and the location has allocations. MHE sends a cycle count list where the counted quantity is less than the allocated quantity, the system displays an error message "Count Qty for is less than allocated Qty, cannot proceed further, item% location%". For example, if the expected quantity for an item in a location is 10 and 8 units are allocated, cycle count of 7 will not be

accepted in the immediate mode. However, in deferred mode with auto-approve, the system records the cycle count as a pending inventory adjustment but will not be approved.

- MHE sends a cycle count list for a location with an LPN in “Quality Check” or “In-Receiving” status.
- MHE sends a cycle count list for an LPN that is associated with a different company than the dedicated company of the location.
- In cases where the count mode is immediate, and the scanned LPN is in “Partially Allocated” or in “Allocated” status. MHE sends a cycle count list where the counted quantity is less than the allocated quantity, the system displays an error message.

Note:

- When the system fails the cycle count list for the task or location, the system processes the other tasks or location cycle counts that are sent in the same payload.
- If you are in immediate mode, the system updates the inventory adjustment without approval. If you are in deferred mode, the system creates the inventory adjustment records for approval.

3PL Company Scenario

Consider, a 3PL Master Company “MC” has two child companies “C1” and “C2”. The following table briefs the behavior of Cycle Count List API:

Scenario	Deferred Mode Updates	Immediate Mode Updates
An LPN (LPN1) exists across companies “C1” and “C2” with different SKUs and you are counting a reserve location RES1 (empty and allows multi-SKU, not dedicated to any company)	• If you send a SKU that doesn’t exist in the company specified in the payload, the system displays an error message “Invalid item”. • If you send a valid SKU that exist in the company specified in the payload, after approval, the system updates the company code of the location with the payload’s company code. The system dedicates the location to the company code you passed in the payload and is not allocated for SKUs of other companies.	If you send a SKU that exist in the company that you are passing in the payload, the system updates the company code of the location with the company code you passed in the payload. The system dedicates the location to the company code you passed in the payload. The system doesn’t allocate the location for other SKUs of other companies.

Note:

- The above scenario applies when a user has access to all companies in the 3PL environment.
- Updates are limited to the company that you are passing in the payload and the system references the shared LPN data within that company.

Automate Cycle Count Task Creation via External Systems Using APIs

Oracle Warehouse Management Cloud (WMS) executes inventory operations, while inventory planning can happen from external systems based on cycle count schedules. You can use APIs so that external systems can create cycle count tasks by executing task creation templates in WMS, create location-driven cycle count tasks based on location IDs, or create item-driven cycle count tasks based on combination of item and location IDs.

You can use the following APIs to create cycle count tasks:

- Execute a Cycle Count Task Creation Template
- Bulk Create Location-Level Cycle Count Tasks Directly
- Bulk Create Item-Driven Cycle Count Tasks Directly

This allows external systems to initiate cycle count tasks and WMS to perform the actual counting of inventories. This ensures better inventory planning and accuracy.

If you want to cycle count locations with higher activities, such as frequently used pick locations, you can utilize “Bulk Create Location-Level Cycle Count Tasks Directly” API to create location-driven cc tasks based on cycle count schedules.

When an item in WMS reaches a specific threshold or if you want to cycle count items with higher outflow, you can utilize “Bulk Create Item-Driven Cycle Count Tasks Directly” API to create item-driven cycle count tasks based on cycle count schedules.

For detailed API documentation, refer to the *WMS REST API Guide*.

Control Recount Prompt During Mobile Cycle Count Location and Cycle Count LPN Transactions

When performing Mobile **Cycle Count Location (rf.inbound.cwrfcyclecountlocn)** and **Cycle Count LPN (rf.inbound.cwrfcyclecountiblpn** transactions, you can control the recount prompt when inventory discrepancy is detected.

In immediate mode, the system immediately updates the counted inventory. In deferred mode, the system records discrepancy counts on the **Cycle Count Adjustments** UI, where you can verify or reject the counts for recounts. Sometimes, it may be counterproductive.

To control the recount prompt during transactions, you can use the screen parameter “allow_recount” in the Mobile **Cycle Count Location** and **Cycle Count LPN** transactions. This allows you to avoid unnecessary recount prompts.

The behavior of this screen parameter is outlined in the following table:

Screen Parameter Configuration	Behavior
allow_recount = Yes or Blank	Default behavior: During the transaction, if any quantity, inventory, or LPN discrepancy occurs in cycle count, the system prompts for recount. Also, the system displays an info message to notify the discrepancy.
allow_recount = No	The system does not prompt for a recount. The system displays only an info message to notify the discrepancy.

Note: In immediate mode, the system updates inventory changes on completing cycle counts. In this case, it is advisable to enable the recount prompt when a discrepancy occurs. This way, you are aware of the discrepancy and can perform recount.

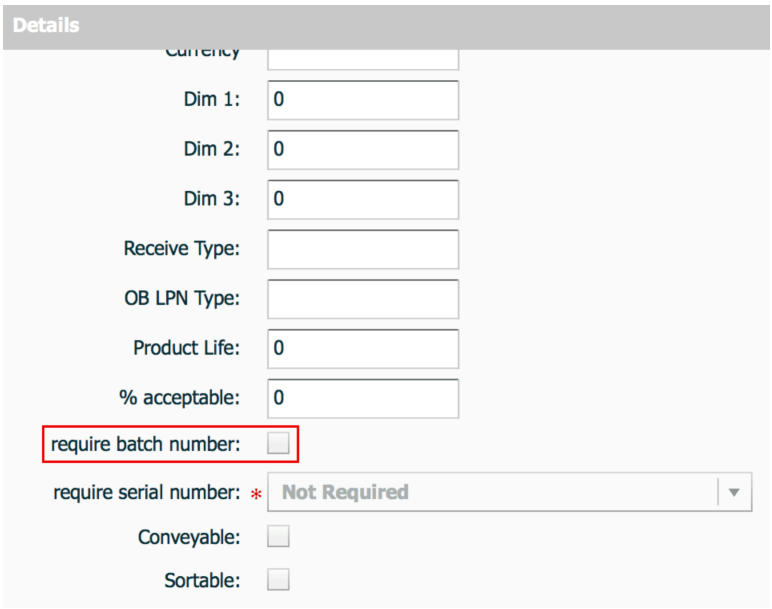
Lot Management

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'.



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.

Access Control in Batch Management UI

Group-Level Permissions for Batch Management UI

You can manage create, edit, and delete batch number records using the following **group-level permissions:**

Permission	Functionality
Batch Management/Can Configure Batch Number	You can configure batch number records in the Batch Management UI.
Batch Management/Can Edit Batch Number	Allows you to edit certain batch number fields on the batch number record in the Batch Management UI including Expiry Date and Lock.
Batch Management/Can Delete Batch Number	Allows you delete batch number records the Batch Management UI.

NOTE: This is permission-controlled; users must enable the permission at the group level to access it. This permission does not allow you to edit batch number fields on the batch number record.

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%

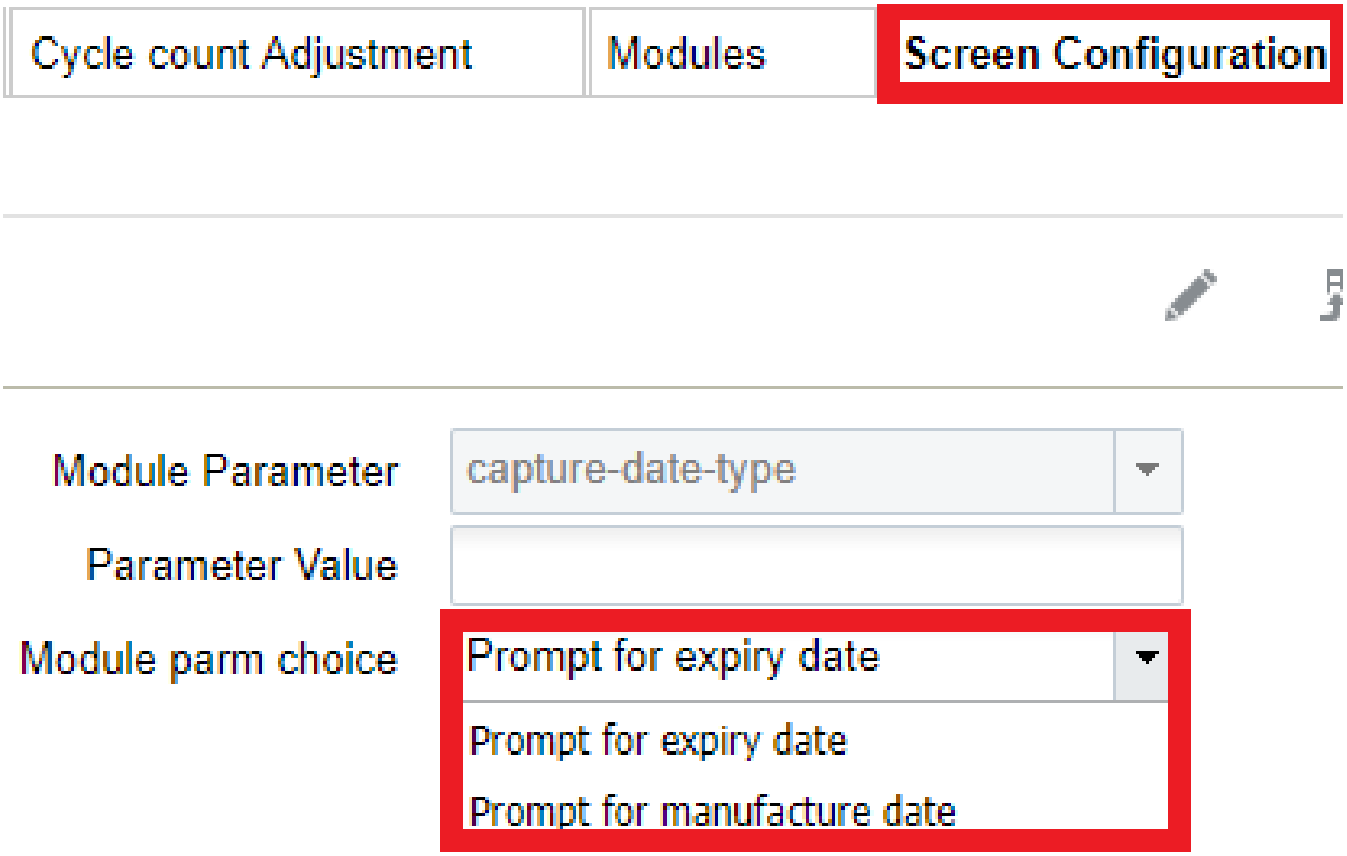
This converts to 30 * 0.6 = 18 days acceptable. In this case, the item has to have at least 19 days left until it expires for it to be accepted into the facility.

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 Mobile receiving module must have the Expiry Date validation enabled.

1. Go to the “Screen Configurations” screen.
2. Select the receiving Mobile module that will have expiry date tracking enabled.
3. Click on Details to access its parameters.
4. Modify the “capture-date-type” parameter to “Prompt for expiry date.”



Note: if using manufacture dates, and if the item has the product life field defined, WMS automatically calculates the expiry date as well).

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.

  > **Note:** On **shipment types**, the allow expired inventory flag takes precedence over the **allow-inv-exp-override** screen parameter configuration.When the Allow Expired Inventory flag is enabled on the shipment type and you scan the expired date, the system will prioritize the **Allow Expired Inventory flag** and ignore the allow-inv-exp-override screen parameter.

- **allow-rem-exp-override:** By default, the system 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 system 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.

WMS validates serial numbers during shipping by enabling serial Number Tracking either end-to-end or outbound only. Serial number tracking is enabled similarly at the item level as well.When this tracking is enabled, the system checks if the right quantity of serial numbers are attached to the inventory being shipped and makes sure to do appropriate validations as well.

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 40 alphanumeric characters for Serial Numbers.
- If enabled, you will have to perform a scan for each Serial Number in a transaction.
- 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 four types of Serial Number configurations:

Item Master Serial Number Configuration	
Selection	**Description**
Not Required.	Item does not track Serial Numbers.

Item Master Serial Number Configuration	
Required, don't validate.	The mobile receiving transaction will NOT prompt for serial numbers when host has interfaced serial numbers to the system.
Required, validate and allow user override.	The mobile receiving transaction will prompt for serial numbers regardless of whether or not the serial numbers are interfaced in the system.

Additionally, the Item Master can be configured at the Serial Tracking level. This lets you track serial numbers from end-to-end or only during Packing. So, to deal with different kinds of serial-tracked SKUs, this level of granular configuration can be useful.

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 and 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.

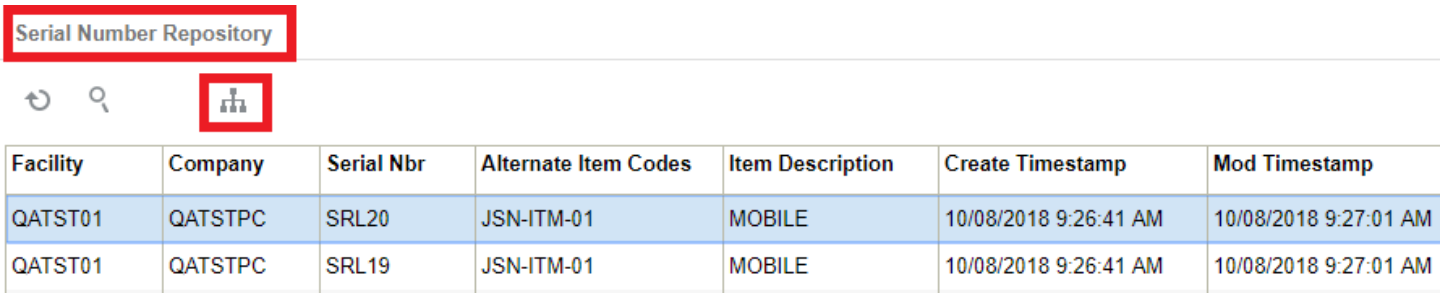
1. Go to the *Barcode Type* screen.
2. Click Create. Select 'Serial Number' under the *Barcode Type* field.
3. Populate the remaining fields. *Length* refers to the barcode length required for Serial Numbers.

4. Click **Save.**

Serial Number Management (UI)

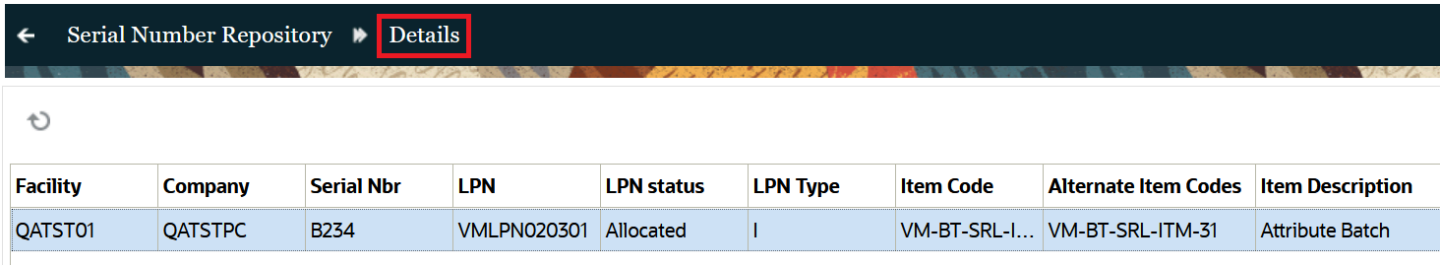
Serial Number Repository View

This screen displays all Serial Numbers for all items in the current facility.



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:



Facility	Company	Serial Nbr	LPN	LPN status	LPN Type	Item Code	Alternate Item Codes	Item Description
QATST01	QATSTPC	B234	VMLPN020301	Allocated	I	VM-BT-SRL-I...	VM-BT-SRL-ITM-31	Attribute Batch

If the serial number is associated to inventory, the detailed view indicates the LPN's status (Located, Allocated, Packed, and so on).

You can view records with serial number discrepancies by filtering the **Inbound Container View** and **Outbound Container View** UI with the 'Has serial number discrepancy' filter option. You can also view all the records with serial number discrepancies from the **Serial Number Repository View** UI.

1. Go to the **Serial Number Repository View** UI
2. Click the **Serial Number Discrepancy View** action button to view all the record with serial number discrepancies within the logged in facility are displayed on the UI screen. The **Serial Number Discrepancy View** UI displays serial discrepancy records from IB Container, OB Container, and Active inventories.
3. Go to **Serial Number Discrepancy View** UI > click Create CC task button to create 'CC-LOCATION-DTL' type cycle count tasks.
    - NOTE: You can make selections of multiple serial discrepancy records and then create tasks from the 'Create CC task' button.
4. After completion of creating CC task, , the task creation templates having only CC-LOCATION-DTL type defined in the template details is displayed in a drop-down list.

    > **Note:** The **Task** templates having multiple task types defined will not appear under the Create CC task drop-down list even if they have one detail with CC-LOCATION-DTL type defined.

    The 'Create CC task' button remains disabled in the following scenarios:

- If no record is selected (default state).
- If a selected record does not have any location assigned (If an LPN does not have any associated location such as received LPNs which are yet to be located).
- If the user selects an OBLPN record.

5. You will be notified with the number of tasks created out of the number of unique locations selected from the records and all the tasks thus created can be viewed from the CC Logs action button placed on the CC Run View UI.
6. The number of tasks created out of the number of unique locations selected from the records are notified to you. All the tasks created is viewed from the CC logs action button on the CC Run View UI.

Note:

- The **Serial Number Discrepancy View** screen only fetches records with serial discrepancies. As a result, even if there are multiple SKUs, only the inventories with the discrepancy appear on the Serial Number Discrepancy View Screen.
- All the cycle count tasks created are at the location level. Additionally, the task creation templates selected from the **Create CC Task** drop down, to create the cycle count tasks give precedence to the selection criteria configured in the template over the selected location records.

Note: You can scan inventory with serial number up to 40 characters. That is, the system allows you to enter up to 40 characters when you hit the CTRL+R hotkey to invoke “Remove serial entry”.

Serial Number Inventory View

You can use the Serial Number History View and serial Number Inventory View screens to audit the movement of serial numbers. The Serial Number Inventory screen provides a comprehensive view of serial numbers and their associated inventory records, such as LPNs, in a single record.

It displays a 'flattened' view, making it easier to track the movement and status of serial-numbered inventory. Serial Number History shows history of the serial Number within the warehouse and its movements as well.

Serial Number Inventory

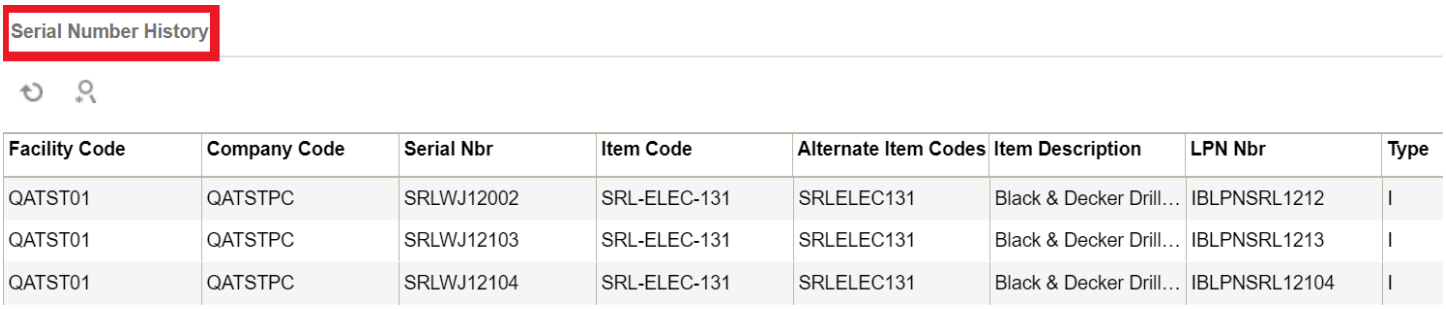
Print Label

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).



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 via the following ways:

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.

Receive Inbound Shipments Via Redwood Mobile

You can bring in serial numbers via the **Inbound (IB) Shipments UI**. While receiving Shipments (LPNs) in Redwood Mobile, for items that require serial numbers, the system can prompt you for new serial numbers.

Through Interfaces

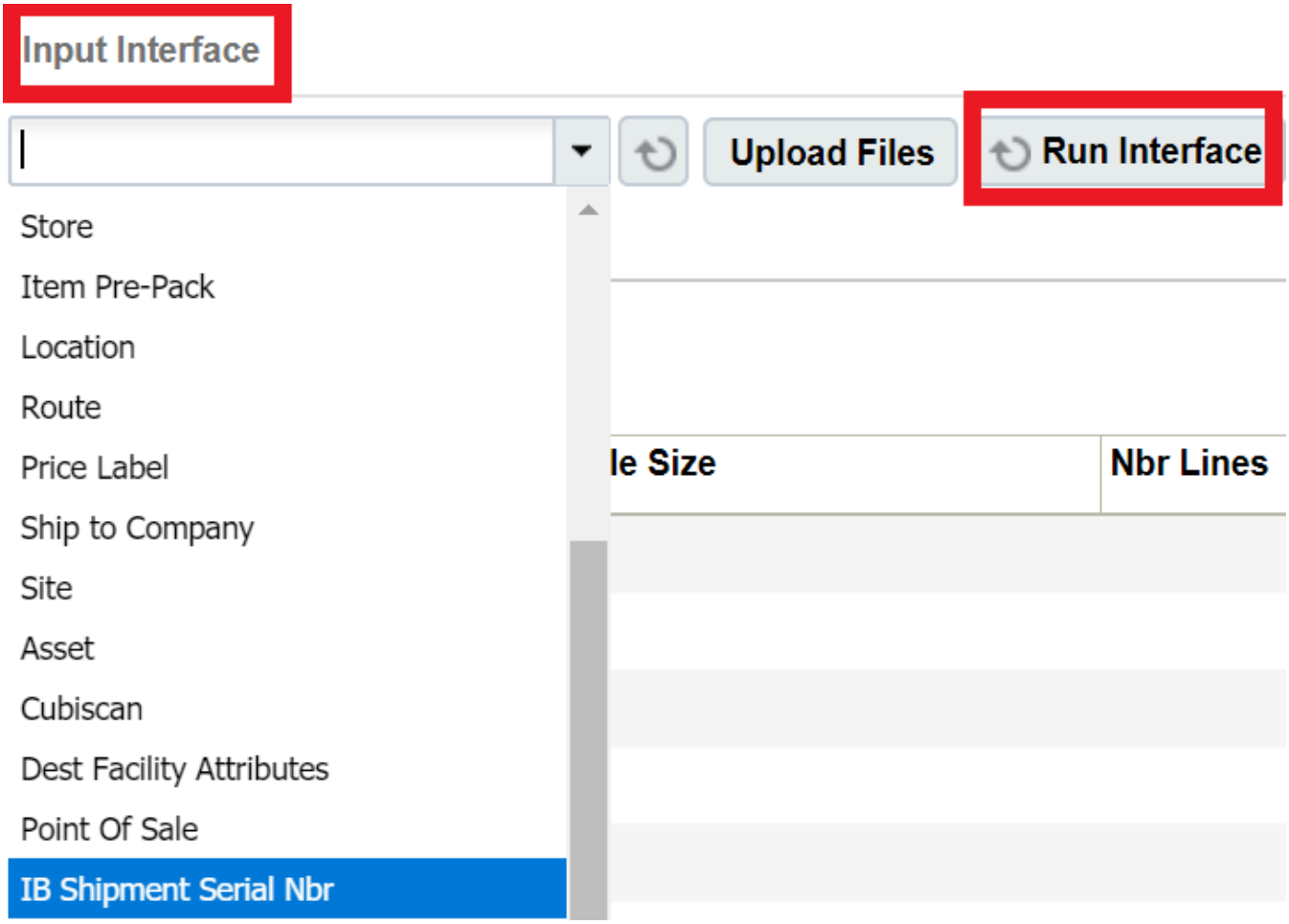
You can also interface serial numbers into Oracle WMS Cloud through the "ISN" interface. This is essentially an excel file with a set of columns that are populated to link LPNs with serial numbers.

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.

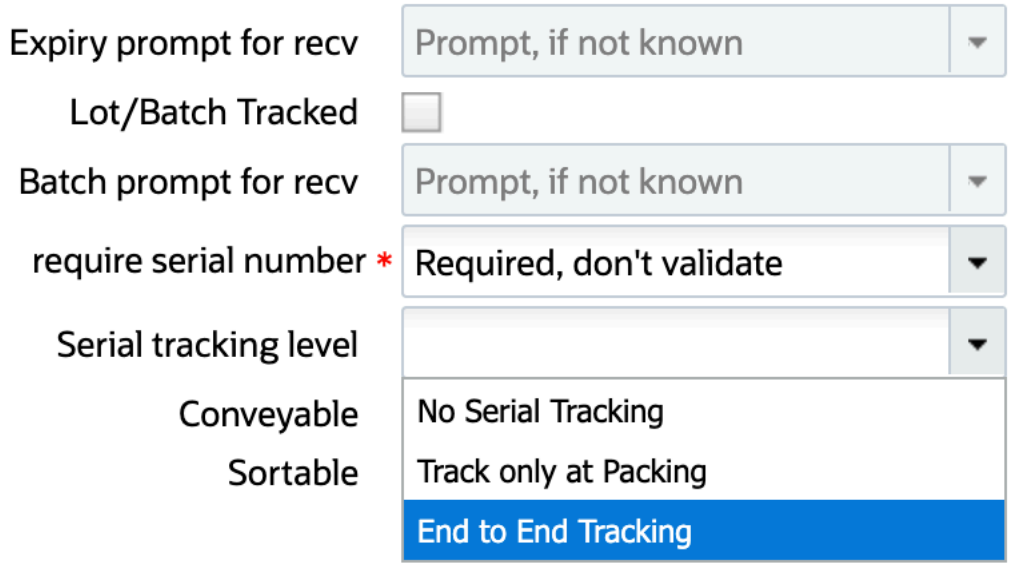
Serialization Control at the Item level

You can choose between the serial tracking levels of “no serial tracking”, “track only at packing”, and “end-to-end tracking”.

For example, you may require an end-to-end tracking for primary/high-value goods but for secondary goods/bundled accessories or you might want to track the serial numbers only during packing. You can achieve this by configuring the serial-tracking level for serial-tracked SKUs.

To set the serial-tracking level for a serial-tracking item, do the following:

1. From the **Items** UI, select the desired serial tracking item.
2. Click the “Item Detail” button.
3. Click the “Edit” (pencil) action button at the bottom of the screen.



4. Click the “require serial number” drop-down field.
5. Select between the drop-down options: “Required, don’t validate” and “Required, validate and allow user override”, as per requirement.

   Note: If you select the “Not required” option, you won’t be able to set the serial-tracking level for that item.

6. Click the “Serial tracking level” drop-down.
7. Select the required tracking level for that item between the drop-down options: “No Serial Tracking”, “Track only at Packing” and “End to End Tracking”.

For example, let’s say, we have serial number tracked SKUs A and B with the Company Parameter Value set as 2. Now, SKU A is configured to serial number tracking level 0 and SKU B is configured to serial number tracking level 2. Here, SKU A will not be serial number tracked, whereas, SKU B will be serial number tracked from end-to-end.

The following tables indicate the levels of serial-tracking that you can configure for the item:

Serial Number Tracking Level

SERIAL NUMBER TRACKING LEVEL	DESCRIPTION
0	No Serial Tracking
1	Track only at Packing
2	End-to-End Tracking

Serial Number Tracking Level Matrix

COMPANY PARAMETER VALUE	ITEM SERIAL TRACKING LEVEL	BEHAVIOR
0	0	Serial check will not be performed.

COMPANY PARAMETER VALUE	ITEM SERIAL TRACKING LEVEL	BEHAVIOR
1	0, 1	• 0 – Serial check will not be performed. • 1 – Serial check will be performed at 'Packing Only'.
2	0, 1, 2	• 0 – Serial check will not be performed. • 1 – Serial check will be performed at 'Packing Only'. • 2 – End-to-End Serial Tracking.

Note: The prompt for serial numbers is determined by comparing the Company Parameter tracking level and the item's serial number tracking level. Here, the precedence is given to the minimum value between these two fields.

For more detailed information on serialization control at the item level, see the following video:

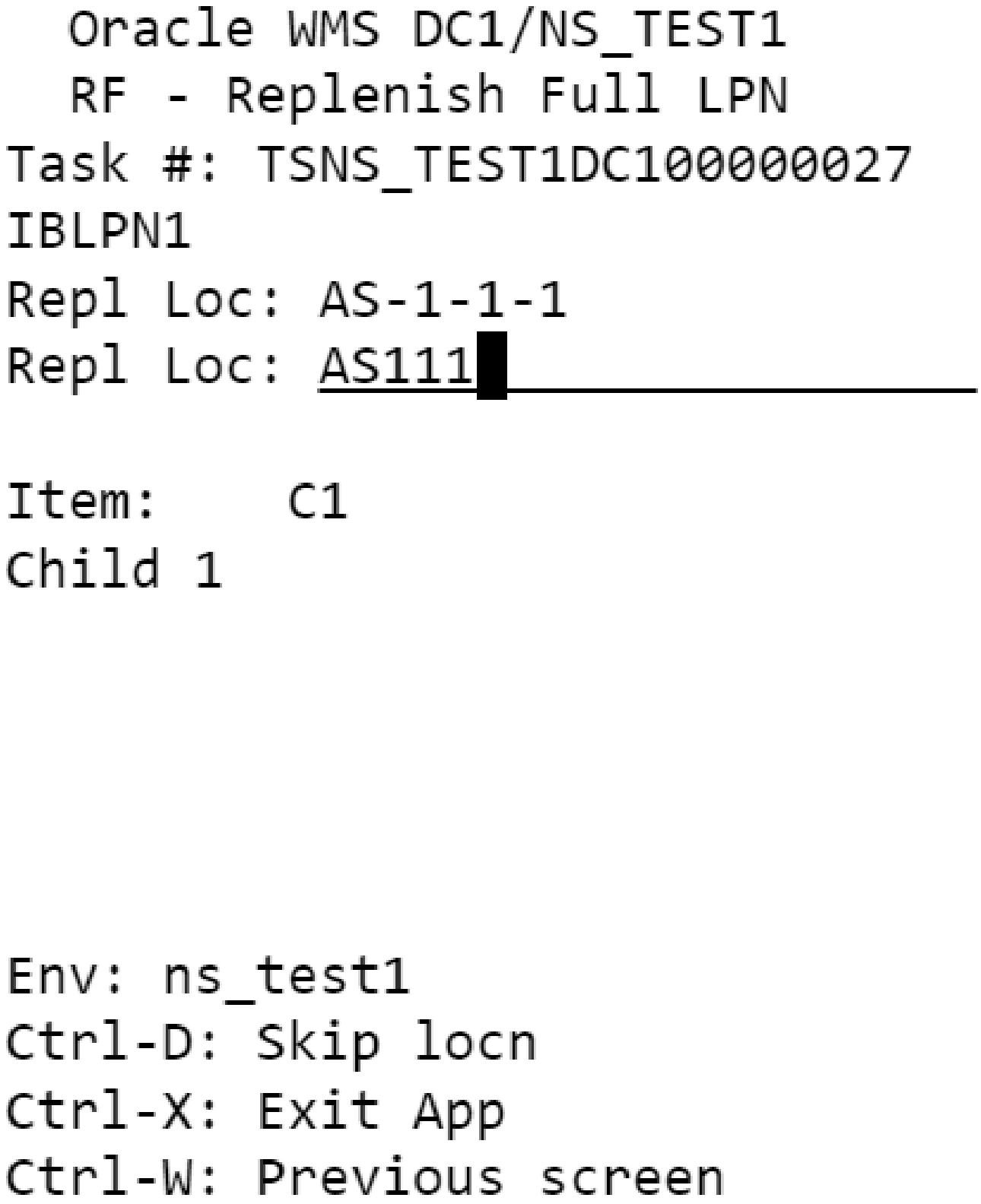
Watch video

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



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:

Mobile Execute Task - Main Menu

From the main menu of Mobile 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.

Mobile Execute Task Module

The Mobile 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	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	Execute {task}	Selection	I**f 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

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				will try to find a task with a lesser pick sequence and order it in descending order. **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. **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
prompt-location-on-launch	None|No|Yes	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	Execute {task}	Selection	**If set to 'Task Type'**, the system will prompt you to type a task type code

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				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		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	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		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	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 Mobile 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.

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				For example, the user executing the task needs to be eligible, the task should be in ready status etc

Column Ordering Rule

In Mobile 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 Mobile **Execute Task**. The following explains the flow for Mobile 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 Mobile 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 Flow for Mobile-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

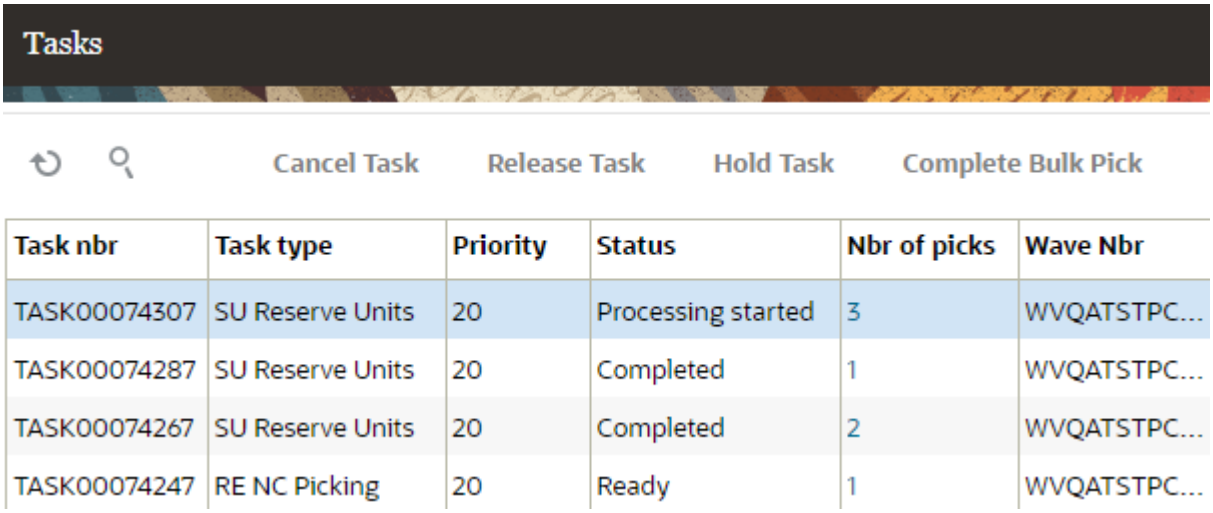
The way operational instructions are sent from Warehouse Management to floor users is via **Tasks**. There are many different kinds of Tasks, such as Cycle Count, Replenishment, or Picking tasks.

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.



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. When the screen parameter “print-label” is set to “Yes”: While releasing picking or/and packing tasks, the system displays “Print Label” pop-up to print documents or labels. Print label prompt is supported only for the picking and packing tasks and doesn’t support for the following task types when releasing tasks: • CC-LOCN-BY-ITEM • CC-LOCATION • CC-LOCN-LPN-CNT • CC-LOCATION-DTL • PUTAWAY_CART • REPLEN-LPN • REPLEN-CASES • CONSOL_REPLEN • IBVAS
Hold Task	Once a task is in ready status, you can hold the task.
Complete Bulk Pick	The Complete Bulk Pick action button is used for handling Distirbution flows through different tasks including allocating orders with inventory, and picking processes as part of distribution.
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.

Mobile Execute Task - Main Menu

From the main menu of Mobile 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.

Mobile Execute Task Module

The Mobile 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	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	Execute {task}	Selection	I**f 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. **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

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 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. **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
prompt-location-on-launch	None|No|Yes	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	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		Execute {task}	Text	You can type a column ordering rule, and then the system performs the task sequencing as mentioned

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				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	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		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	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 Mobile 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 be eligible, the task should be in ready status etc

Column Ordering Rule

In Mobile 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 Mobile **Execute Task**. The following explains the flow for Mobile 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.

Rules-Based Task Prioritization

Task priorities are assigned during task creation using task creation templates or triggers. However, these initial priorities may not reflect changing warehouse conditions, such as surge orders, seasonal demand, or cycle count task prioritization.

In busy warehouse operations, manual task reprioritization based on warehouse conditions is error-prone and time-consuming. You can use configurable rule-based task prioritization to dynamically update task priorities based on real-time operational criteria.

Real Time Scenarios

- **Customer Commitments:** A customer's order is delayed due to unforeseen circumstances, and the delivery date is changed. The task priority should be adjusted to reflect the new delivery date.
- **Transportation and Shipping Changes:** A carrier appointment is rescheduled, and the task priority needs to be updated to reflect the new appointment time.
- **Business De-Prioritization:** A customer places an order on hold, and the task priority should be reduced to reflect the changed business priority.

You can define rules that evaluate task, order, user, and multiple attributes and apply priority adjustments. Once configured, you can execute these rules manually or via a scheduled job to continuously keep priorities aligned with warehouse conditions.

> **Note:** This capability reprioritizes existing eligible tasks based on configured rules. It does not change task creation logic or default warehouse flows.

This helps you with the following:

- Prioritize or deprioritize specific tasks based on configured rules.
- Reduces manual priority edits, minimizing delays and rework.
- Improves resource utilization by focusing on time-sensitive tasks.

To support rules-based task reprioritization, we have added the following:

- **Task Management Rule View (TaskManagementRuleView)** UI to create and execute task prioritization rules.
- Run Task Priority Manager scheduled job to execute task prioritization rules.
- The following new group permissions to control multiple activities on the Task Management Rule View:
  - **Task Management Rule Detail / Run Rule: Enables Run Rule action button on the** Task Management Rule View > Details screen to execute the selected task prioritization rule.
  - **Task Management Rule Detail / Can create Task Management Rule:** Enables Create action button on the Task Management Rule View UI.
  - **Task Management Rule Detail / Can edit Task Management Rule:** Enables Edit action button on the Task Management Rule View UI.
  - **Task Management Rule Detail / Can delete Task Management Rule:** Enables Delete action button on the Task Management Rule View UI.
  - **Task Management Rule Detail / Can Configure Selection Criteria Rules:** Enables Selection Criteria action button on the Task Management Rule View UI.

Task Prioritization Rule

You can create a task prioritization rule for a Regular or CC template on the **Task Management Rule View UI** and in the details screen, you can add multiple sequence rules to set the priority adjustment type. Then, for the created sequence, you can add selection criteria using the **Selection Criteria** action button. Once you create a rule sequences, you can multi select and execute the rule sequences using **Run Rule** action button.

You can also run these task prioritization rules in intervals using “Run Task Priority Manager” schedule job. On the Schedule Job UI, you can configure this schedule job using comma-separated task management rules and schedule it. Based on the rule sequence, the system reprioritizes the tasks.

You can export, import, or copy these configurations from the **Task Management Rule View** UI using configuration action button. For more details on the configuration action button, refer to the *Online Help*.

Note:

- **Rule Enablement:** Only rule details with Enabled are executed.
- **Task Status:** The system updates priorities only for tasks in Ready status.
- **3PL Context:** In a 3PL setup, task reprioritization honors the user’s login context to ensure rules apply to the correct facility/company association.
- **UI Availability:** Task Management Rule View is available in the Regular Legacy WMS UI. Redwood UI availability is not targeted in this release.

Steps to Configure

To configure task management rules, do the following:

1. Add the “TaskManagementRuleView” module to your group menu.
2. Enable the following group permissions:

- Task Management Rule Detail / Run Rule
- Task Management Rule Detail / Can create Task Management Rule
- Task Management Rule Detail / Can edit Task Management Rule
- Task Management Rule Detail / Can delete Task Management Rule
- Task Management Rule Detail / Can Configure Selection Criteria Rules

Note: By default, admin users are enabled with these group permissions.

1. On the **Task Management Rule View** UI, create a task prioritization rule.
2. For the created task prioritization rule, on the **Task Management Rule View** > **Details** screen, add rule sequence details.

To execute task management rules manually, on the **Task Management Rule View** > **Details** screen, select rule sequence lines and click **Run Rule action button.**

To execute task management rules via scheduled job, do the following:

1. Open **Schedule Job** UI.
2. Create and enable a job with Job Type = Run Task Priority Manager**.**
3. Specify the **Task Management Rules** as a comma-separated list.
4. Click **Save**.

Prompt Location on Launch

The system will prompt you when you launch Mobile 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 Flow for Mobile-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.

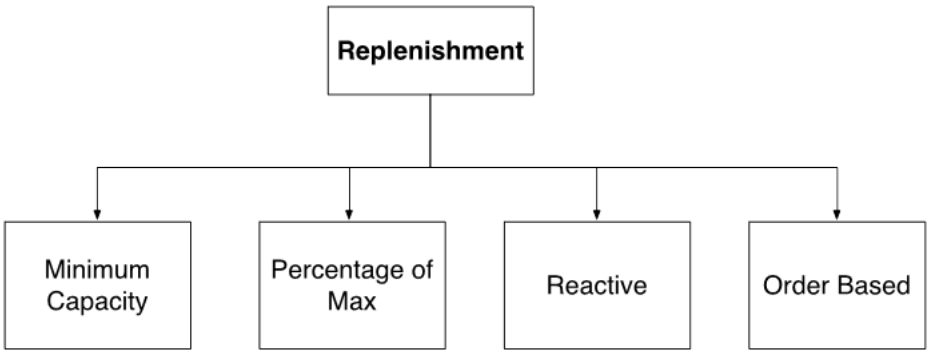
6. 'Next Location of Task' – displays in ascending order of the location pick sequence

Replenishment

Replenishment is the movement of inventory from reserve storage locations to picking storage locations. The purpose of replenishment is to maintain adequate inventory levels to meet customer demand.
Some objectives of integrating Replenishment into WMS include:

- 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.

Repenishment 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:

Mimimum Capacity mode is triggered when a location's current quantity goes below the required minimum quantity. Additional configurations:

- Locations with Replenishment Zones require Min/Max Units and/or LPNs populated.
- Locations with Replenishment Zones need to be "Permanent" with an assigned Item.

Reactive:

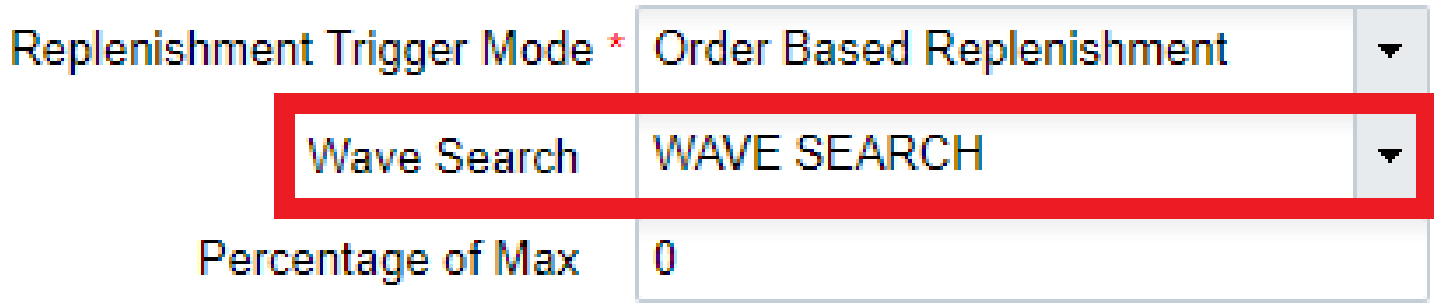
Reactive Replenishment mode is triggered when you manually scan a location to be replenished. Additional configurations include:

- A "Reactive Replenishment" RF module must be added in the "Screens" tab and to the user's Menu in the "Menus" screen.

Order Based:

Order Based Replenishment mode is triggered when anOrder'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 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.

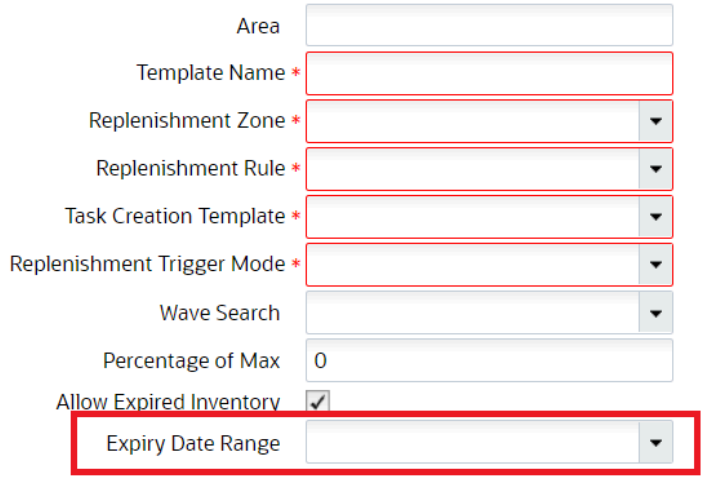
- If you have a picking wave with a replenishment rule configured, and your picking wave is also set up with an Expiry Date Range rule, then the system honors the expiry date range rule configured on the wave template while creating replenishment allocations.
    - Expiry Date Range configured on the 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.



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*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.

Replenishment and Round Up One UOM

Note: The 'Round Up One UOM' and 'Ignore Capacity for Last Permanent Location' options can be used only for order-based replenishment and movement requests, and are not intended for standalone replenishment.

The following are some example scenarios for when the **Round up One UOM Flag** is set to Yes:

Scenario	Source Inventory LPNs	Movement Request Need	Destination Location Max	Replenishment Result
Dynamic Location mentioned on Movement Request LineReplenishment UOM is "LPNs".	Multiple LPNs of 60 units each	90	200	Replenishment to be created for 120 Units (Allocate Two LPNs of 60 units).
Dynamic Location mentioned on Movement Request LineReplenishment UOM is "LPNs".	Multiple LPNs of 60 units each	90	100	Dynamic Location will be replenished to 60 units. Replenishment of another 60 units will take incoming inventory beyond location max.
Movement Request Line has Replenishment Zone mentioned which has multiple Dynamic locations	Multiple LPNs of 60 units each	190	Loc-1: 100Loc-2: 100	Replenishment 60 Units to Location-1 and 60 Units to Location-2 as we do not want to go beyond max for dynamic location.
Permanent Location is mentioned on Movement Request line and	Multiple LPNs of 60 units each	90	100	Replenish only 60 Units, we will not go beyond locations Max.

Scenario	Source Inventory LPNs	Movement Request Need	Destination Location Max	Replenishment Result
Replenishment UOM is "LPNs".				

These are some example scenarios for when the **Ignore Capacity for Last Permanent Location** flag is set to yes.

Round Up One UOM Flag	Ignore Capacity for Last Permanent Location*Flag will have no bearing*	Result
Yes	No	We replenish permanent locations by one excess UOM. Applicable for UOMs for LPNs, cases and packs. If the outstanding need is > combined location max. Replenishment will happen for one excess UOM and not satisfy the need. Example: Location max is 1000 and Order need is 250 and LPN's of 60 units present. Replenishment will happen for 300 units. If Location Max is 200 and Order Need is 170 and we have LPNs of 70 Units each, we will replenish upto 140 and subsequent LPN will not be replenished as we go beyond the location's max.
No	No	This is the defualt behavior. With this replenishment beyond locations, max is not supported. Example: Location max is 1000 and Order need is 250 and LPNs of 60 units present. Replenishment allocation will created for 240 units, if the underlying movement request does not allow partial allocation.
No	Yes	This is the defualt behavior. With this replenishment beyond locations, max is not supported. Example: Location max is 1000 and Order need is 250 and LPNs of 60 units present. Replenishment allocation will created for 240 units, if the underlying movement request does not allow partial allocation.

Round Up One UOM Flag	Ignore Capacity for Last Permanent Location*Flag will have no bearing*	Result
Yes	Yes	We replenish permanent locations by one excess UOM. Applicable for UOMs for LPNs, cases and packs. If the outstanding need is > combined location max. Replenishment will happen for one excess UOM and not satisfy the need.

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.

Configure Destination Location Type in Standalone Replenishment

In Standalone Replenishment, you can configure the Destination Location Type to be either Reserve, Active, or both.

> **Note:** The feature to configure Destination Location Type is applicable for standalone replenishment only and not wave-based replenishment. The Destination Location Type drop-down is available from Replenishment Template View, in the Replenishment Rule UI. The default is Reserve and Active.

Destination Location Type	Description
Reserve and Active	The designated destination location types determined for replenishment can be either Reserve or Active for the area corresponding to the Area and Replenishment zone provided on the Replenishment Template.
Reserve	The designated destination location types determined for replenishment will be Reserve location only for the area corresponding to the Area and Replenishment zone provided on the Replenishment Template.
Active	The designated destination location types determined for replenishment will be Active location only for the area corresponding to the Area and Replenishment zone provided on the Replenishment Template.

To configure the Destination Location Type, go to the Replenishment Template View, then Replenishment Rule and select an option from the Destination Location Type drop-down.

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.
    - To search for pending Replenishment tasks in the “Tasks” UI screen, click the magnifying glass and filter by the replenishment task type.

      > **Note:** You can also search via the Run Number on the Wave Inquiry screen.

    - 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 Mobile 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 system 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 system 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 system 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 system 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 system 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 system 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 system 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 system 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 allows 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 system directs you to the first picking location. Scan the location barcode to confirm that the user is at the location.
3. The system 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 system will direct you to the next pick location, and repeat the picking process. When you finish all the picks, the system displays the message “Nothing left to pick”:
5. Once all the picks are complete, the system then directs you to the replenishment location. Scan the location barcode to confirm that the user is at the location.
6. The system 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.
7. When all locations in the task have been replenished, the system 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.

1. Upon entering the task, the system 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.

2. After scanning the dummy LPN, the system directs you to the first picking location. Scan the location barcode to confirm that the user is at the location.
3. The system now asks you to begin picking units from the first picking location, prompting you to scan the Item code and quantity.
4. If there are more units to pick, the system directs you to the next pick location, and repeat the picking process. When you finish all the picks the system displays the message “Nothing left to pick”.
5. Once all the picks are complete, the system directs you to the replenishment location. Scan the location barcode to confirm that the user is at the location.

6. The system 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.
7. When all locations in the task have been replenished, the system will return to the Task list.

Continuous Replenishment

To achieve continuous replenishment, you can create a replenishment template to replenish locations within a particular Replenishment Zone. To achieve permanent location replenishment only, you should pick a trigger mode of "**Min Capacity**"or"**Percentage of Max**".

You can then set up a Scheduled Job to run the replenishment template. If the location is at min, or you can fill up to a % of max, then replenishment tasks would be created. This would create a “hands free” continuous replenishment for those locations.

> **Note:** It is recommended to set a Replenment Template with trigger mode of "Min Capacity" or "Percentage of Max" for contineous replenishment.

To access more details about the **Run Replenishment Template scheduled job**, go to the *Oracle WMS Cloud Information Center.* From the top of the page, click on the **Documentation** tab at the top, then click the link under **Current Documentation** and refer to the **Scheduled Jobs excel document.**

Reuse Empty Canceled or Consumed LPNs During Mobile Distribute Replenishment

In certain scenarios, reserve locations may contain physically empty LPNs with inventory that has been fully picked or updated to zero.

You can scan canceled or consumed LPNs as “To LPN” during the Mobile **Distribute Replenishment** transaction for the following tasks to reuse the empty boxes:

- CONSOL_REPLEN (Reserve-to-Reserve)
- REPLEN-CASES

> **Note:** The system doesn’t allow scanning a consumed IBLPN if there is an existing OBLPN with the same container number.

Prompt Serial During Replenishment Completion

You can identify inventory (such as serial tracked items) being replenished against movement requests/orders to multiple locations.

SUPPORT FOR PROMPTING SERIAL NUMBERS WHILE REPLENISHING CANDIDATE LOCATIONS (CONSOLIDATION REPLENISHMENT)

If multiple locations are being replenished out of the same LPN, the system will prompt for serial numbers while replenishing a location from an Intermediate LPN.

However, if the quantity to be replenished to a location is less than the quantity present in the intermediate LPN, then the system will prompt for serials, otherwise, the system will not prompt for serials.

> **Note:** While replenishing the location, RF Distribution Replenishment will not allow scanning new serial numbers that are linked to any other inventory (IBLPN/OBLPN/Active.)

SUPPORT FOR PROMPTING SERIAL NUMBERS WHILE REPLENISHING CANDIDATE LOCATIONS FROM THE SOURCE LPN (CASES REPLENISHMENT)

When multiple locations are being replenished out of the same LPN, the system will now prompt for serial numbers while replenishing a location out of a Source LPN.

If the quantity to be replenished to a location is less than the quantity present in the source LPN, then the system will prompt the user for serials, otherwise, the system will not prompt for serials.

> **Note:** After replenishing the location, if there are residuals left in the LPN, RF Distribution Replenishment continues to prompt for the reserve location.

Steps to Enable:

1. To enable End to End prompting of serial numbers, enable the Company Parameter SERIAL_NUMBER_TRACKING, and the require serial number flag on Item.
2. The SERIAL_NUMBER_TRACKING parameter value should be set to 2.
3. The require serial number field on the item should be set to “Required, don’t validate”, OR “Required, validate and allow user override.”

Reactive Replenishment – Weight Capacity Check

When replenishment of items happens in a location via 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 mobile module called “Reactive Replenishment”. Here, you simply scan the location that needs to be replenished and WMS creates a replenishment task. Depending on the Mobile parameter setting, you may or may not execute that replenishment on the spot.

1. Go to the “Reactive Replenishment” Mobile module.
2. In the “Locn:” field, scan the location to replenish. The system 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 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 create/update Movement Requests (depending on status.) 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."

> **Note:** Orders cannot be updated in the **Movement Request Header** UI after they move from created status. You must use the **Movement Request PATCH API** to update movement requests after they are in **Created** status. See the REST API Guide for more details.

The header section of this UI contains the following columns:

UI Column	Required	Description
movement_request_number	Yes	WMS Entered/Passed or Auto Generated number. Accepts letters or numbers.
company_code		Displays the company code in the movement request UI.
facility_code		Displays 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: • 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
Internal Movement Request Flag		If a Movement Request is created via UI, the system updates this flag as Yes. It means that the Movement Request is Internal. If a Movement Request is created through Movement Request interface, the system updates this flag as No. It means that the Movement Request is External.
Allow Edit of External Movement Request Flag		If you create a Movement Request is via Movement Request UI ("Internal Movement Request Flag" = Yes), the system creates a

UI Column	Required	Description
		movement request with "Allow Edit of External Movement Request Flag" = Blank. It means that the Movement Request is Internal and can be editable. If you interface a Movement Request ("Internal Movement Request Flag" = "No"): • When "allow_edit_of_external_ movement_request_flg" = "FALSE" or Blank : The sytem creates a movement request with "Allow Edit of External Movement Request Flag" = "No". • When "allow_edit_of_external_ movement_request_flg" = "TRUE" : The sytem creates a movement request with "Allow Edit of External Movement Request Flag" = "Yes". **Field Behavior:** If this field is "No" for a Movement Request, the system doesn't allow you to edit the Movement Request header and detail records via the Movement Request UI. If this field is Blank or "Yes" for a Movement Request, the system allows you to edit the Movement Request header and detail records via the Movement Request UI, provided that the records are in a valid status to edit.

From the **Movement Request Headers** UI, you can manage the From/To Movement Request Status.

Additional Search Filters in Movement Request Header

You can update an existing Movement Request via API, along with the ability to de-allocate and cancel Movement Request using the UI screens.

To help in managing multiple movement requests against associated work orders, you can search or filter the movement request data by Manufacturing (Mfg) Work Order Number available in the Movement Request Header UI. When you filter data with this field, the system will display the results in the **Movement Request Detail** UI.

Run Wave from Movement Request Headers and Work Order UIs

The **Run Wave** button allows you to run movement requests from both the Movement Request Header and Movement Request Detail UIs.

When you click the Run Wave button, the run wave pop-up will appear with a Wave Template option. From the drop-down, you can view all the waves with 'Replenishment Trigger Mode' - 'Movement Request Based Replenishment' available from the Replenishment Template UI. From the Run Wave pop-up, you can select the Replenishment Template and Run single/multiple Movement Requests.

> **Note:** You can only Run Movement Request that are in **Created**, or **Partly Allocated** status.

After you click Submit, the following message will display, allowing you to confirm if you want to run the wave:

Note: Once you click OK to accept the confirmation message, and the system runs the Replenishment wave for the selected Movement request, the system will display a wave success confirmation message.

Work Order Inquiry UI

You can now run specific work orders directly from the Work Order Inquiry UI without needing to go to the **Work Order Wave Template** UI.

From the **Work Order Inquiry** UI, you can run work orders that are in 'Created, or Partly Allocated' status.

Movement Request Detail

Replenishment flow in Warehouse Management System allows you to process LPN and an entire pallet. You can use the Move LPN and Distribute replenishment mobile transaction for efficiently and effectively handle LPN and pallet process, streamlining the Full LPN Replenishment flow.

Note: When you are creating Movement Request Details:

- Movement request detail provides the SKU and quantity information that will 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.

Support Pallets via Movement Request Details

To use and simplify movement of pre-built pallets, the movement request detail has a field called “Required Pallet Number”.

- Go to Movement Request Entity > Movement request details > enable Required Pallet Number field for pallets to appear on the UI grid.

  You can use this field to populate the pallet number on multiple movement request details (via UI, input interface, or init_stage_interface API) going to the same destination, in case of some LPNs on the Pallet having different SKUs or same SKU multiple inventories, which can be allocated across multiple movement request details.

  Note: If the payload contains multiple movement requests and some of them have errors in the past data, the system will process only the valid requests. It will create or delete movement requests based on the action code, while skipping the requests with errors.

Additionally, the "Required Pallet Number" and "Required LPN Number" fields is available on the Patch API for Movement Request Detail.

Note: The system prevents both of these fields from being interfaced together as they are mutually exclusive.

Replenish An Entire Required Pallet to One Destination Location

The movement of a pallet is enhanced to accomplish Full LPN replenishment by replenishing the entire pallet to one location.

By configuring the “Required Pallet Number” on the movement request details, you can replenish an entire pallet to single destination location via Replenish Full LPN (rf.inbound.cwrfreplenlocn) Mobile transaction flow

The system will replenish the pallet as a whole in both Reserve to Active and Reserve to Reserve flows and displays the pallet number being distributed on the RF Replenish Full LPN screen.

- Reserve to Active: The system will replenish the entire contents of the Pallet to the destination active location.
- Reserve to Reserve flows: The system will replenish the entire Pallet as is to the destination reserve location.

TASK CREATION TEMPLATE

To help achieve the movement of entire pallets, you need to create a task movement by configuring the flag on the task creation template detail UI.

1. Go to the Task Creation Template UI.
2. Select the record and go to details.
3. Click the Edit icon.
4. Enable the **Scan pallet number if whole pallet allocated** flag.
    - If the flag is enabled: The movement of the Pallet(s) is created for the task and the Pallet number is populated on the movements. During execution of the task, the system prompts for the Pallet number only (not for the LPN) for scanning the fully allocated pallet.
    - If the flag is disabled: The existing behaviour will retain, where a blind Pallet is scanned and all LPNs for movement are scanned to build the pallet.
5. Click Save.

Note: This flag is applicable for only two Task Types (REPLEN-LPN and REPLEN-CS-PK-UNITS) and but can be used for all the replenishment trigger modes to create task for Pallet movements.

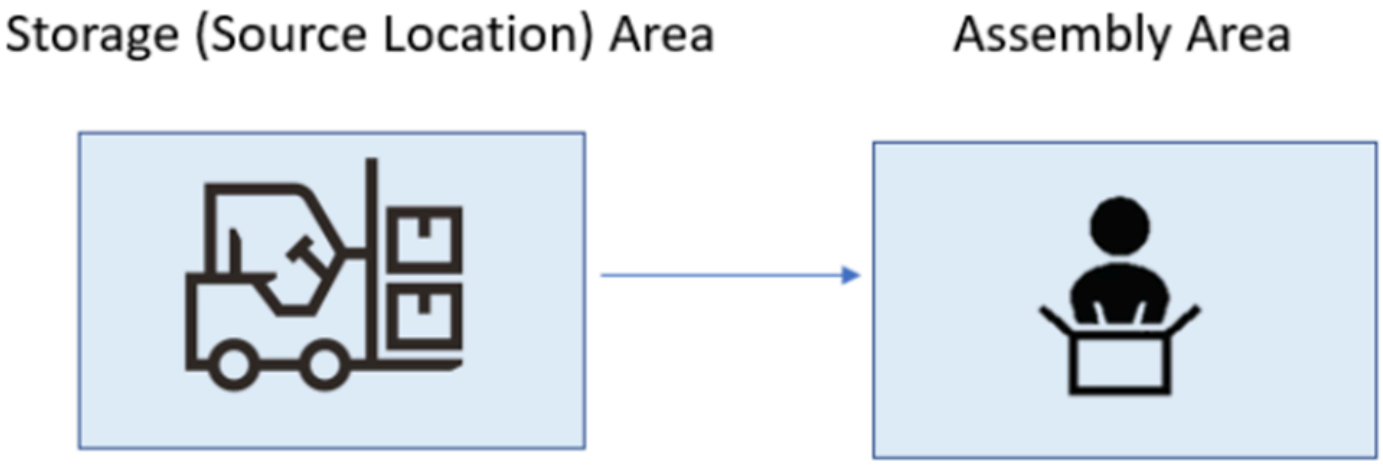
How Does the Movement Request Triggered Replenishment Considers Required Pallet Number

The replenishment allocation logic considers the "Required Pallet Number" field on the movement request detail ensuring that allocations are made correctly when this field is populated.

1. When allocating, the system mainly checks if the ordered Qty on the Movement Request detail(s) with same destination and same required pallet number is greater than or equal to the total Qty of the SKU from all the LPNs on the Pallet, i.e.,
    - If Required Pallet is populated and allocation fails, the detail is skipped.
    - If the allocation fails, the system skips executing the detail including regular replenishment allocation sequence execution. If Order Qty on the detail > Pallet total Qty and Required Pallet is already allocated, the outstanding Qty remains unallocated.
    - Area/Alloc zone configured in the Allocation mode sequence is ignored when 'Required Pallet Number' is configured.
        - **Note:** The entire Pallet is allocated across multiple Movement Request details only if the destination location matches the details.
2. If Movement Request detail has specific batch/attributes, the system honours it and fails allocation in case of a mismatch.
3. On running replenishment, the system considers the Replenishment rule set for 'Movement Request' trigger, Full LPN Replenishment Mode in the Replenishment Template View, along with the 'Required Pallet Number on the MR detail. This allows allocating the entire Pallet against the movement request detail(s) for Full LPN Replenishment mode.
4. If a Pallet is still unallocated after going through the required pallet logic, then the pallet is made available for other Movement Request details to allocate the entire pallet or the full LPNs on the pallet.

Pick and Issue Flow

Pick and Issue (Auto consume) flow is used for fulfilling orders. This process involves picking items from inventory or storage area (source location) and issuing these items to complete the order fulfillment process.



This flow ensures that orders are accurately picked, issued, and shipped to meet customer demands or internal requirements.

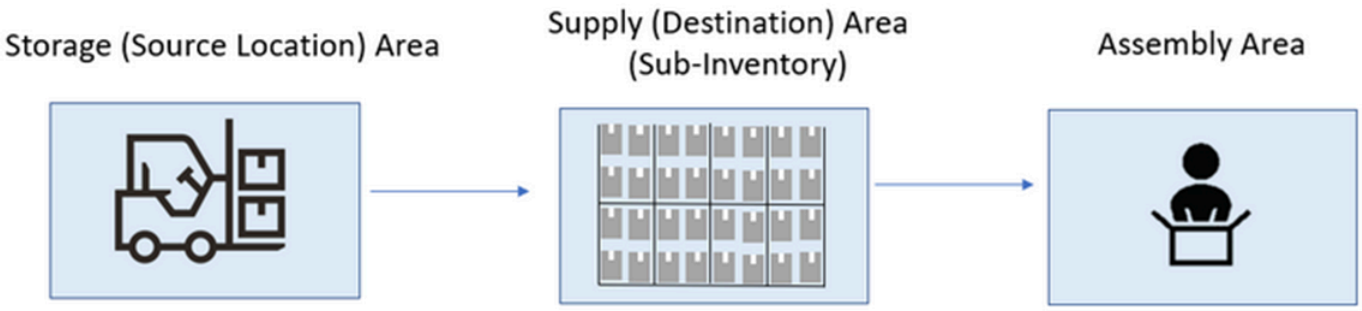
During a movement request fulfilment, you can opt to perform replenishment through Pick and Issue (auto consume) flow by enabling the “Auto Consume Flag” checkbox in the **Movement Request Detail** screen of the **Movement Request Header (MovementRequestHdrView)**.

Note:

- You cannot use Auto Consume functionality in conjunction with the Round Up One UOM functionality. During replenishment, if the “Auto Consume Flag” is enabled for a Movement Request detail, , the system does not consider the “Round Up One UOM” flag configured at the replenishment rule level.
- For Pick and Issue flow, once the delivery of the items is completed, the system deducts the inventory as part of replenishment process. To depict the reduction of inventory happening due to auto consume flag set to yes, the system creates IHT-91 inventory history transaction.

If you disable the “Auto Consume Flag” checkbox on the **Movement Request Detail** screen, the system follows Pick and Move Flow.

Pick and Move flow is used when items need to be relocated within the warehouse or transferred between different sub-inventories. This process involves picking items from one location (source location) and moving these items to another (destination) without necessarily fulfilling a specific order.



This process helps to optimize inventory placement and improve picking efficiency for future order fulfillment.

Deallocate/Short Quantities from Movement Request Detail

The following action buttons have been added to the Movement Request Detail UI:

Action Button	Allows you to:
Deallocate	• Select movement request details to be canceled. • Deallocate one or more details from the movement requests selected. Users will be able to rerun the deallocated movement request.
Short	• **Deallocation and cancel one or more movement request details.**

Deallocation and Other Movement Requests

Note: There could be multiple movement requests which can be associated with Full LPN Replenishment, when one of the movement request detail is deallocated, other movement request details will be impacted, similarly the same scenario could happen for Replenishment with allocation UOM of cases or packs.

For Example:

A single LPN-1 with 100 units could have been allocated against three movement request details, MR1, MR2, MR3, each one pointing to different Work Orders for full LPN Replenishment. Let's say MR1 is pointing to Work Order-1, MR2 is pointing to Work Order-2 and MR3 is pointing to Work Order-3. When the user wants to deallocate Movement Request MR-2, then movement requests MR-1 and MR-3 will also be de-allocated.

Cancel a Movement Request

Fusion Manufacturing might cancel a work order due to underlying sales orders being canceled, shop floor damages, production outages, or machine breakdown where there would be a need for movement requests to be canceled in WMS. In such case, you can cancel the movement request in WMS to support Integration between WMS/Fusion Inventory/Fusion Manufacturing.

You can search Movement Requests based on the Work Order number, then select multiple movement requests, and click the Cancel button in the Movement Request Detail UI to cancel them.

You can Short/Cancel the whole movement request in the following scenarios:

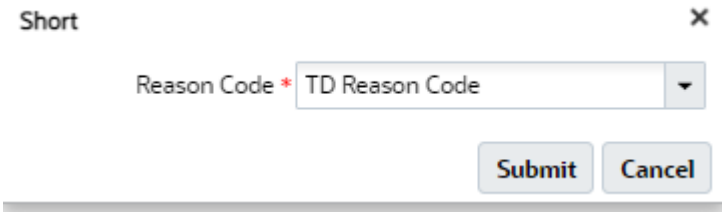
- When all the movement request details are **fully or partially allocated** with no tasks being executed.

- When the Movement Request is associated with multiple work orders.
- When filtered movement request details are in **Created** Status.

> **Note:** The system will deallocate and short/cancel the portion of the movement request detail when part of the movement request detail is delivered, and the remaining portion of the detail is part of the task that is In Ready status.

1. Select the movement request from the **Movement Request Headers** UI.
2. Go to the **Movement Request Detail** UI.
3. Click **Short** to cancel the movement request.

   Once you click **Short**, the system will prompt you to add a Reason Code:



After the movement request is shorted, refresh your Movement Request Detail and Movement Request Header screens, and then the status should move to “Cancelled.”

If you click Cancel, a message is displayed with number of movement request details successfully canceled. The message will also display the number of records subjected to cancel. This will include the count of filtered records.

Movement Type

The Movement Type UI allows you to configure Movement Types. This screen allows create, read, update, and delete operations. Movement Types are a great way to differentiate between types of moves in the warehouse. This will help you to identify movements such as component movements to assembly work stations or movements to handle recalls. Movement Types 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 partial allocation of the 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.

UI Column	Required	Comments

Update Movement Requests from WMS UI Interfaced from External Systems

From the Movement Request Header UI, you can perform COPY/EDIT/DELETE actions (only for UI-created Movement requests) where the 'Internal Movement Request' flag is set to 'Yes', and in valid status.

- You can now search/filter for records with **"Allow Edit of External Request"** = Yes or No using this new UI search field

Note: You will only be able to update this during Movement Request interface.

- The 'Internal Movement Request' field will NOT be displayed in the UI view by default.
- You can add or remove this field from the UI view.

Allow Edit of External Request

You can Create/Edit/Delete movement request header/detail via the **Allow Edit of External Request** field. When the 'Allow Edit of External Request' is set to Yes and the movement request is in a valid Status, the Create/edit/delete option is available.

Note: The existing Internal Movement Request field will be used only to identify whether a Movement request is created via interface / UI, and the Create/edit/delete of Movement request header/detail will NOT have any dependency on this column.

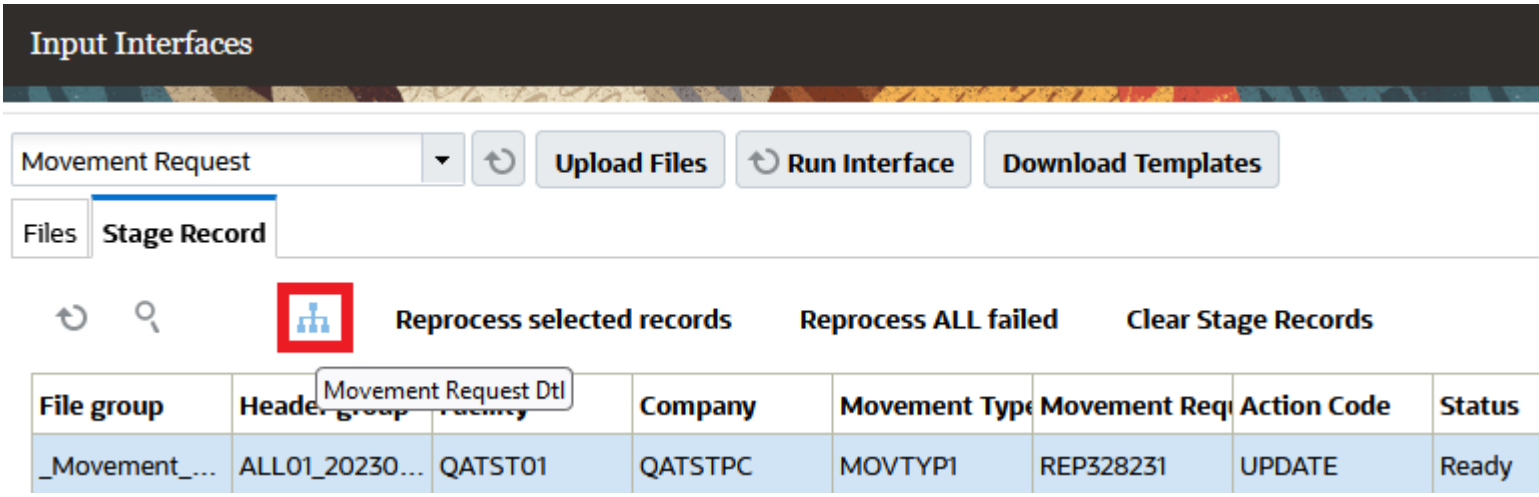
The following table shows the valid statuses associated with the action:

Order Level	Action	Valid Status
Header	Copy	All status
Header	Edit	Created, Partly Allocated, In picking and Allocated
Header	Delete	Created
Detail	Copy	Created, Partly Allocated, In picking and Allocated
Detail	Edit	Created, Partly Allocated, In picking and Allocated
Detail	Delete	Created

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.

From the Input Interface, you can access Movement Request from the drop-down. From here, you can access Movement Request Detail 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

```
//xxx.wms.ocs.oraclecloud.com/env_name/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

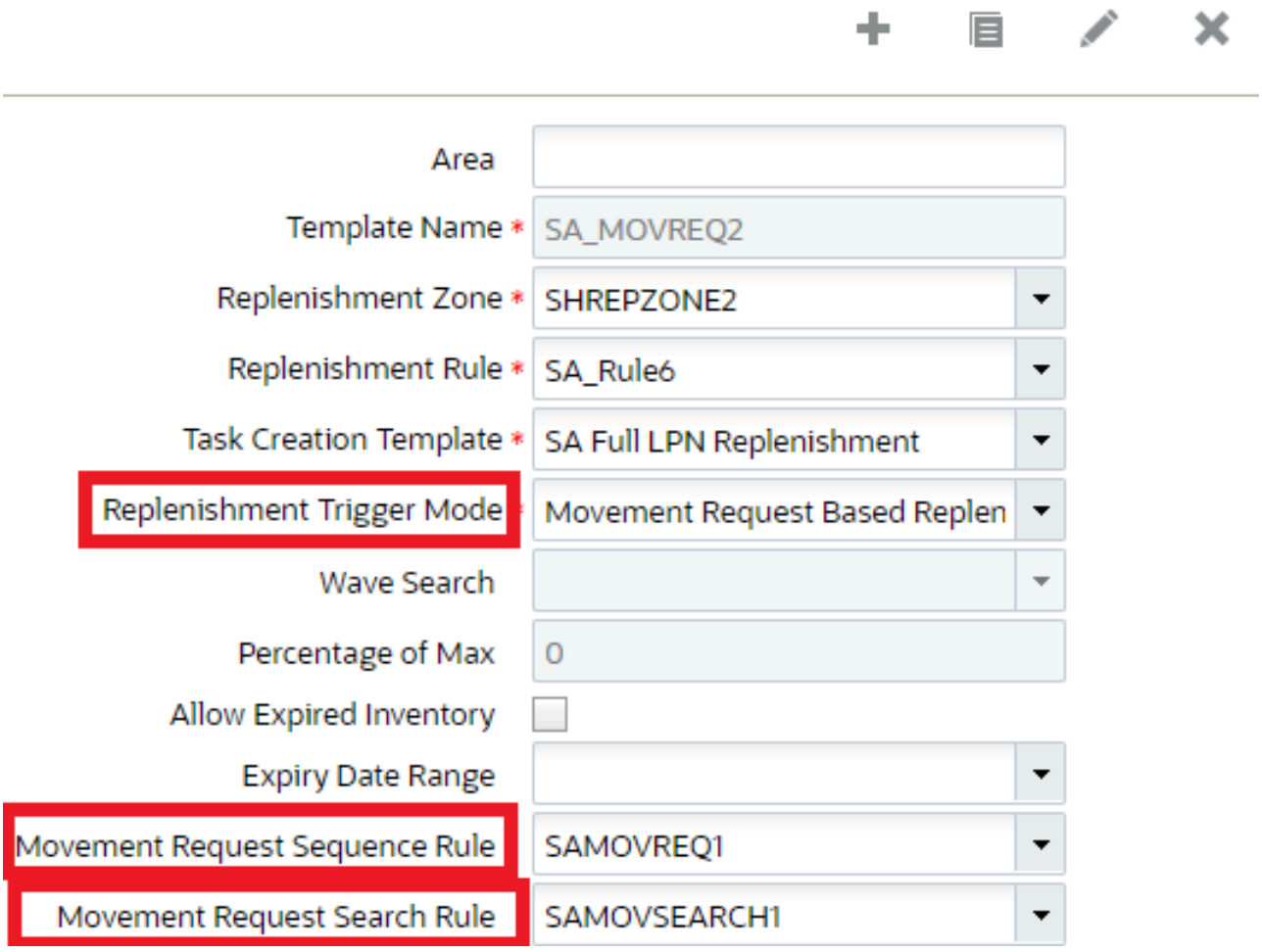
You can configure and manage movement requests in the Replenishment Template UI. The replenishment wave will create tasks and tell you where to move the materials associated with movement requests.

> **Note:** In Movement Request Based Replenishment, to support Work Order processing, the **Assembly Flag** needs to be enabled in the **Locations** UI.

For more information about the Assembly Flag, see *Location Master*.

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.



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.

> **Note:** To create a movement request sequence rule, you must first create a template (from the **Replenishment Template** UI) with Replenishment Trigger Mode= 'Movement Request Sequence Rule'. Next, select the record and click on the movement request sequence rule button.

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	• "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	• "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"

Update Action Code in Movement Request Interface

If you interface a file with action code **UPDATE** and there is no existing record found in the application for that Movement Request, the system will create the Movement Request.

Then, if the movement record is already present in WMS, the system will update the existing record.

Just-in Time Replenishment Based on Movement Request

You can dynamically initiate allocations or pull tasks for existing allocations by scanning attributes like movement request number/work order, destination location, and SKU (optional). This helps you in replenishment task execution, based on movement request attributes.

Pre-configuration

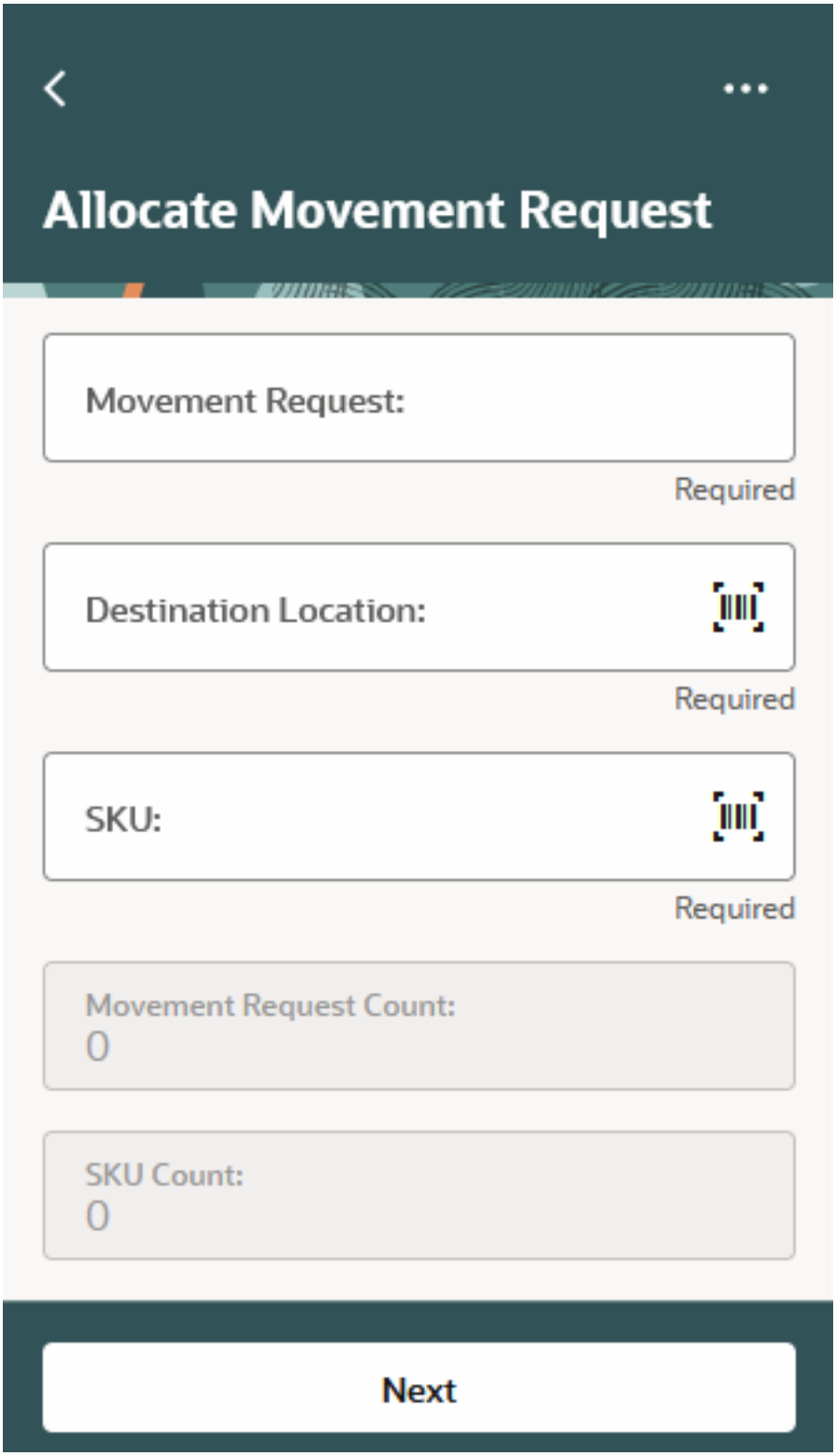
You must configure your Mobile Allocate Movement Request (or Mobile Allocate Work Order) transactions with a valid replenishment template to run the wave.

To manage replenishment by triggering work order or movement request associated allocations, do the following:

1. Launch the Redwood Mobile application.

2. Go to the Allocate Movement Request module.

> **Note:** When the parameter “mode” is set to blank, the system prompts you to scan movement request, by default. For scanning work orders, you have to set the “mode” to “Scan Work Orders”.



3. Input the Movement Request number on the Movement Request field.
4. Scan the Destination Location.
5. Scan the desired SKUs in the SKU scan field.

6. To scan the next set of Movement Request-Location-SKU, tap the hotkey Ctrl+S.
7. To end the movement request scan and initiate the allocations associated with it, tap the hotkey Ctrl+E.

The following scenarios describe the workflow on invoking the Mobile Execute Task module:

- When parameter “auto-assign-task” is set to YES

Scenario	Behavior
No valid executable tasks are found for the filter criteria	An info message: “No valid Tasks found/created” is displayed.
Valid executable tasks are found for the filter criteria	Mobile Execute Task is invoked. On executing a task, the next tasks (if any) will get auto-assigned. **Note:** If multiple tasks are found, the filtered tasks will be sorted as per the “task-prioritization-rule” configuration. After completing all the tasks, the system navigates back to the first RF screen.

  - Tap the hotkey Ctrl+A to accept the message. If valid tasks are present, they are all executed and the system navigates back to the first Mobile screen.
  - Enter the details afresh for the previously entered prompt fields.
- When parameter “auto-assign-task” is set to NO, the system will run the allocations wave, without invoking the Mobile Execute Task module.

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
Dynamic Active	No	Yes

Location	Lean Time Replenishment	Replenishment with Picking Wave
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.

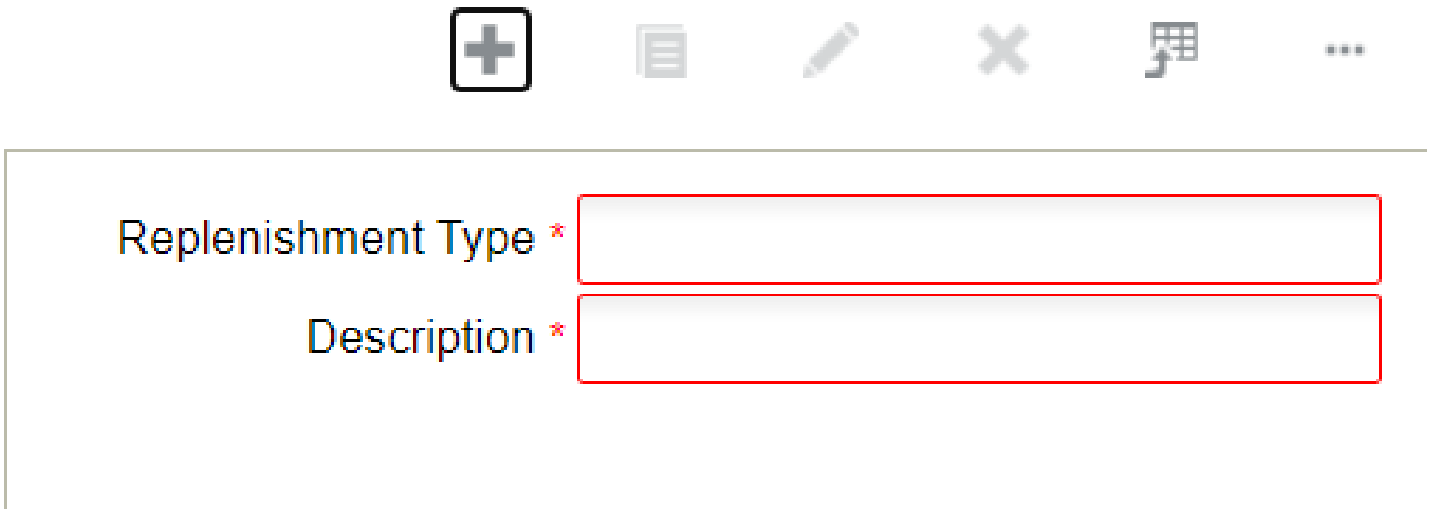
Set Replenishment Type

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:



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 Typ**e from the drop-down menu and click **Save**.

Cancel Picking Allocations only for a Replenishment with Picking Wave

In some situations, customer orders tied to a picking wave may be canceled, but the associated replenishment activity is still required to maintain inventory levels in the warehouse.

To support this, a **Cancel Picking Allocations Only** action is available in the **Wave Inquiry** screen for Replenishment with Picking Waves. This allows you to cancel only the picking allocations associated with a wave while preserving the replenishment allocations.

Key Considerations

- Available only for Replenishment with Picking Waves
- Cancels only the picking allocations for the selected wave
- Retains all existing replenishment allocations
- Regenerates the Wave Pick Info output file, if configured
- Does not regenerate the Replenishment Wave Pick Info file, since replenishment allocations remain unchanged

Automatically handles all related updates, including:

- Tasks
- Orders
- Inventory History Transactions (IHTs)
- Other associated picking allocation records

Note: The action is enabled only when the selected wave is a Replenishment with Picking Wave and picking activity for the wave has not yet started.To use this feature:

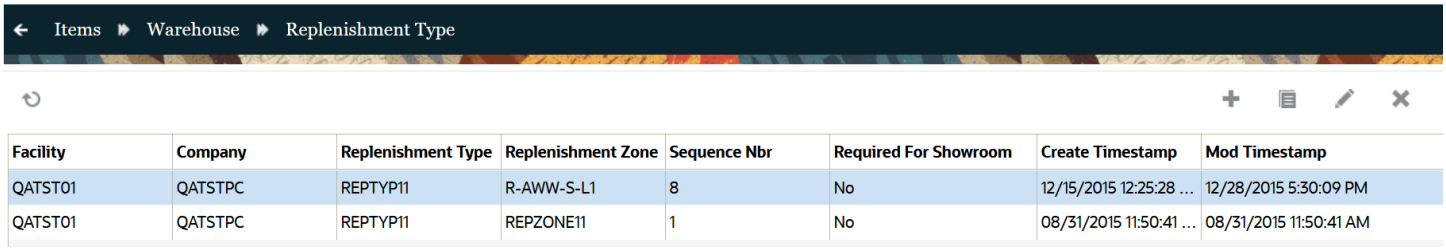
1. Ensure that you have the same permissions required for the **Undo Wave** action.
2. Verify the facility parameter **UNDO_WAVE_EVEN_AFTER_PICKING** is configured appropriately for your operational policies.
3. Optionally configure the **Wave Pick Info output file** generation if outbound wave files are used in your environment.

Note: If picking has already started, the action remains unavailable, even if replenishment processing is still in progress.

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.



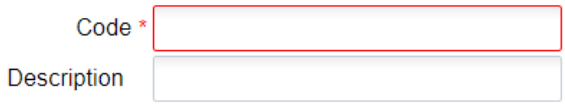
Facility	Company	Replenishment Type	Replenishment Zone	Sequence Nbr	Required For Showroom	Create Timestamp	Mod Timestamp
QATST01	QATSTPC	REPTYP11	R-AWW-S-L1	8	No	12/15/2015 12:25:28 ...	12/28/2015 5:30:09 PM
QATST01	QATSTPC	REPTYP11	REPZONE11	1	No	08/31/2015 11:50:41 ...	08/31/2015 11:50:41 AM

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.

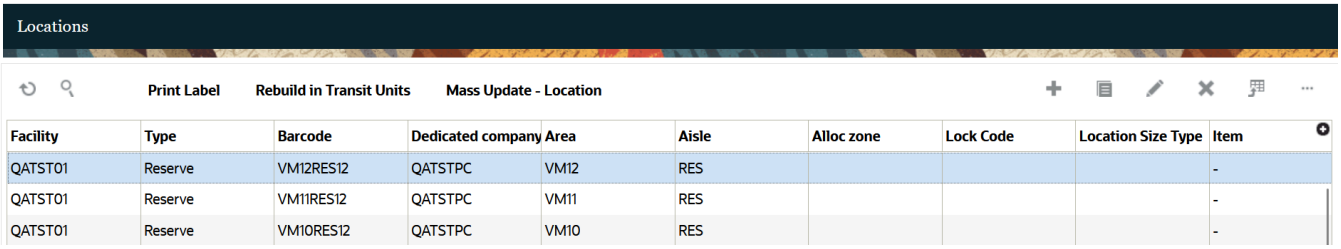
1. Go to the **Replenishment Zone** UI > Click **Add** .
2. Enter the **Code** and **Description** for the Replenishment Zone.



3. Click **Save**.

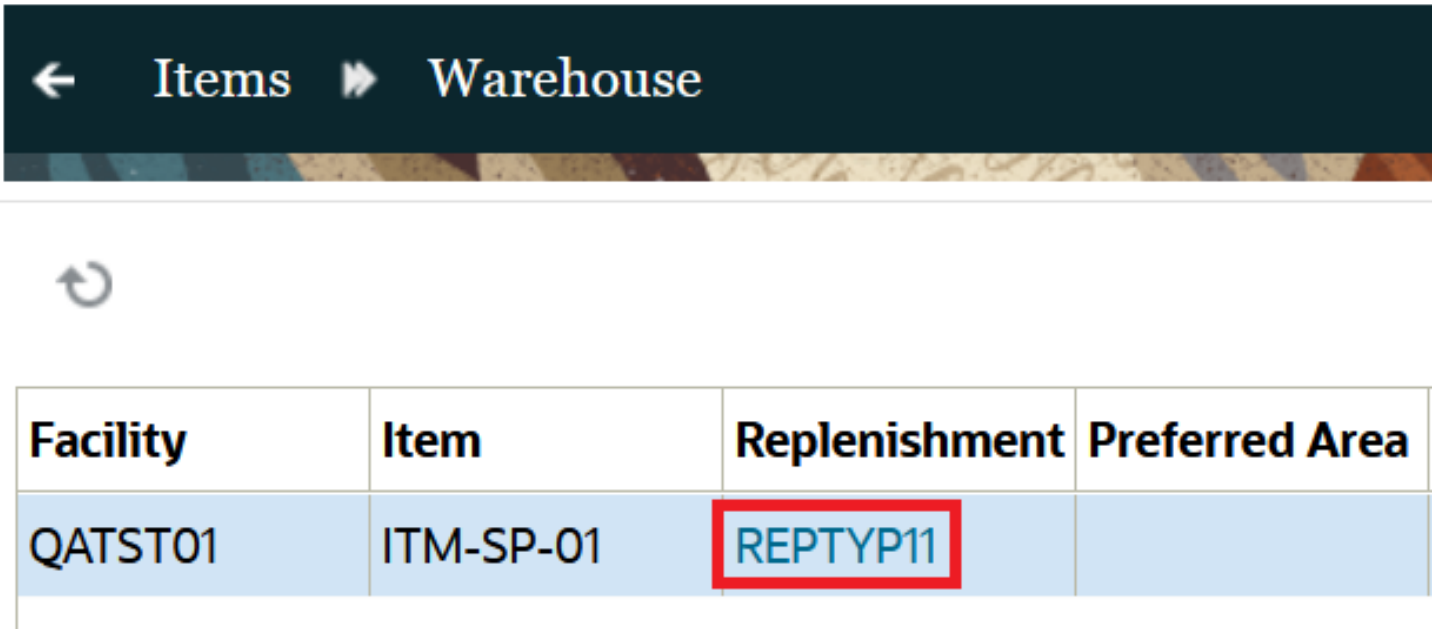
Associate Replenishment Zone to the Dynamic Location

1. Go to the **Locations** UI.
2. Create an active location and associate the **Replenishment Zone**.



Facility	Type	Barcode	Dedicated company	Area	Aisle	Alloc zone	Lock Code	Location Size Type	Item
QATST01	Reserve	VM12RES12	QATSTPC	VM12	RES				-
QATST01	Reserve	VM11RES12	QATSTPC	VM11	RES				-
QATST01	Reserve	VM10RES12	QATSTPC	VM10	RES				-

Now, configure your replenishment zone and sequence number in your **Item** > **Warehouse** > **Replenishment type** UI, click **Replenishment Type** hyperlink and configure your **Replenishment Zone**.



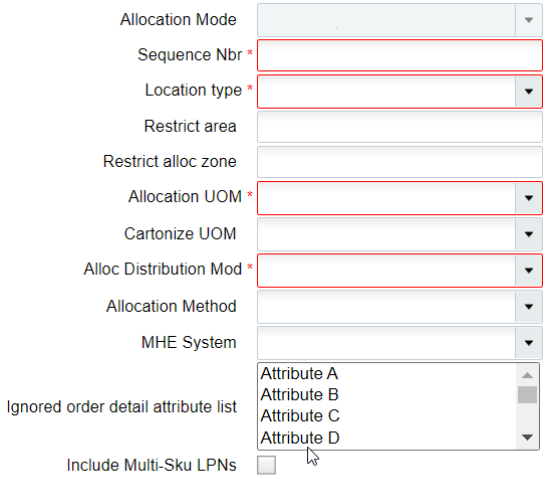
Configuring Allocation Location

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.



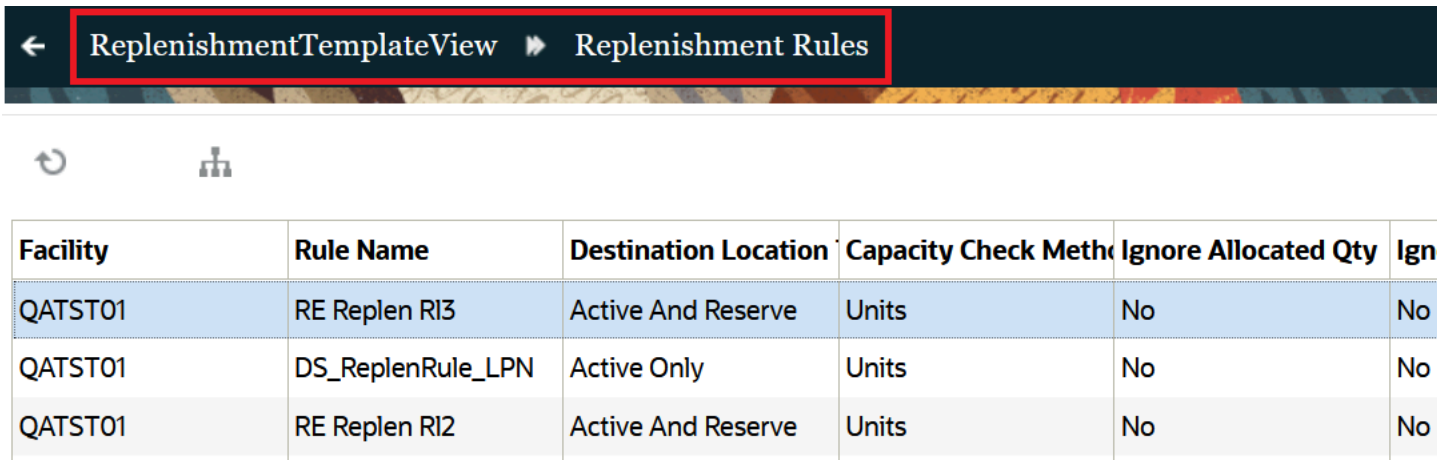
5. Click "**Save**".

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.



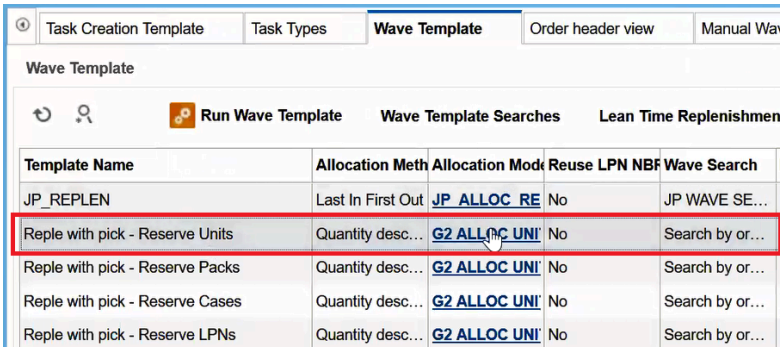
Facility	Rule Name	Destination Location	Capacity Check Meth	Ignore Allocated Qty	Ign
QATST01	RE Replen RI3	Active And Reserve	Units	No	No
QATST01	DS_ReplenRule_LPN	Active Only	Units	No	No
QATST01	RE Replen RI2	Active And Reserve	Units	No	No

3. Go to details and define the Allocation Location type, Allocation method, replenishment UOM type, and so on.



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.



Determine Candidate Destination Locations Based on Proximity Definition

Use the flag **proximity replenishment** in the **Replenishment Rules** UI to target the closest destination (Active) location in the same aisle for wave-based replenishment.

Note: When you use Proximity Defined replenishment, the system considers only FULL LPNs.

To use proximity definition to determine candidate destination locations, do the following:

1. Go to the **Replenish Template View**.
2. Click the **Replenishment Rules** button.
3. You will be navigated to the **Replenishment Rules** screen. Here, click the “+” action button to create a new replenishment rule.

   Alternately, to edit an existing replenishment rule, select the desired rule and open the Create/Edit/Delete pane and enable the checkbox for the **Proximity Replenishment** flag.
4. Enter mandatory details like "Rule Name" and "Capacity Check Method" as well as any other fields you’d like to configure.
5. For the "Destination Location Type" field, select **Active Only** from the drop-down.
6. Enable/set the checkbox for the **Proximity Replenishment** flag.
7. Next, enter the desired value in the "Proximity Radius" field.

   Note: For the feature to work seamlessly, your bay needs to be defined only in numerical value (using positive integer values, i.e, 0, 1, 2…) using the standard format: AREA-AISLE-BAY-LEVEL-POSITION.
8. Click Save.

   Note: For the scenarios where there are two candidate Source-Destination Location matches within the same proximity radius, then logic of FEFO > FIFO > LIFO takes precedence to perform the replenishment.

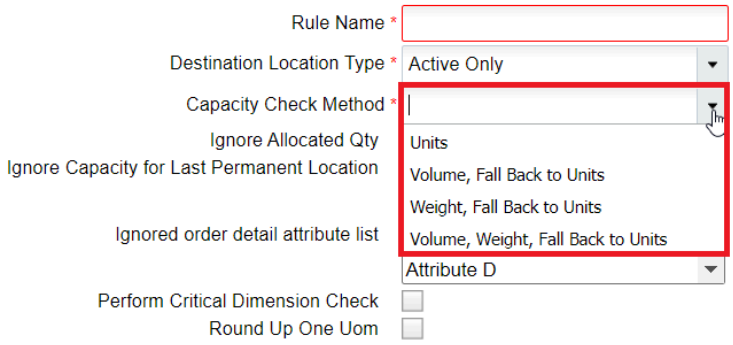
Workflow for Replenishment with Picking Wave

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.

Note: While searching for dynamic locations to replenish, system will go as per the Replenishment Type on the Item against the Replenishment Zone configuration.

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:



   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 the user has configured a replenishment zone in the replenishment wave template, then the system will look for active locations (permanent or dynamic, in that order based on put sequence) in that replenishment zone.
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
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

Location	Type	Min	Max	Current Qty	Capacity
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
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

Location	Type	Min	Max	Current Qty	In-Transit	Capacity
A003	Dynamic	20	120	50	70	0
A004	Dynamic	20	120	80	40	0
A005	Dynamic	20	120	80	40	0

Consider Weight Check During Replenishment

Oracle Fusion Cloud Warehouse Management System includes a weight-based check in the replenishment rule in the existing Capacity Check Method. These weight-based checks include two fields in the Capacity Check Method drop-down in the replenishment rule of replenishment template UI:

- Weight, Fall Back to Units
- Volume, Weight, Fall Back to Units

WAVE-BASED REPLENISHMENT

If the weight-based capacity check is done during allocation from Wave-based Replenishment and you select the replenishment rule with Capacity Check Method = "Weight, Fall Back to Units", then the system considers the location's maximum weight in Units for capacity check. However, if the location's maximum weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight and maximum units.

If the weight-based capacity check is done during allocation from Wave-based Replenishment and you select the replenishment rule with Capacity Check Method = "Weight, Volume, Fall Back to Units", then the system considers the location's maximum weight in Units and Volume for capacity check. However, if location's maximum weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight, maximum volume and maximum units.

STANDALONE REPLENISHMENT

If the weight-based capacity check is done during allocation from standalone replenishment and you select the replenishment rule with Capacity Check Method = "Weight, Fall Back to Units", then the system considers the location's maximum weight in Units for capacity check. However, if location's maximum weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight and maximum units.

If the weight-based capacity check is done during allocation from standalone replenishment and you select the replenishment rule with capacity check method = "Weight, Volume, Fall Back to Units", then the system considers the location's maximum weight in Units and Volume for capacity check. However, if location max weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight, maximum volume and maximum units.

The weight-based capacity check is done during execution of Replenishment template when capacity check method is defined based on weight and Replenishment Trigger Mode is selected to any of below defined value:

- Minimum Capacity
- Percentage of Max
- Order-Based Replenishment

- Reactive Replenishment : When you scan the location using RF : Reactive Replenishment for replenishment, the system performs capacity check based on weight, and the replenishment rule for reactive replenishment triggered is configured with:
- - Weight, Fall Back to Units: System considers the location max weight in Units for capacity check. However, if location's maximum weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight and maximum units.
  - Weight, Volume, Fall Back to Units:System considers the location's maximum weight in Units & Volume for capacity check. However, if location maximum weight is greater than zero, then the quantity to replenish =< available capacity on the location with respect to maximum weight, maximum volume and maximum units.

REPLENISHMENT TASK EXECUTION

You can perform weight-based capacity check during execution of a replenishment task even though capacity checks happen during allocation. In the meantime, when a replenishment task is picked for execution, there are chances that the target location may be filled with inventory from different transactions, for example, Locate LPN, Putaway etc. Hence, replenishment task execution by weight-based capacity check takes places when corresponding replenishment rule is configured with capacity check:

- "Weight, Fall Back to Units"
- "Volume, Weight, Fall Back to Units"

During replenishment task execution, the weight-based capacity check also considered for the following task types:

- REPLEN-CS-PK-UNITS (Replenishment of Cases, Packs and Units)
- REPLEN-LPN (Replenishment of Full LPN)
- Internal Bulk Pick (Consolidate & Replenish)

SUPPRESS CAPACITY CHECK DURING END LPN OF CONSOLIDATE AND DISTRIBUTE TASK EXECUTION

You can also suppress the capacity check during End LPN (Intermediate LPN) when you execute Consolidate and Replenishment tasks. During Consolidate and Replenishment task execution, system does not perform capacity check (Units/Weight/Volume) at the End LPN (Intermediate), but it displays the allocated quantity. When you scan the quantity to replenish, system then performs capacity check for the following scenarios:

- If replenishment location has the capacity to move all the allocated inventory, then replenishment takes place.
- If replenishment location does not hold the incoming inventory, then the system displays an "Insufficient Capacity" error message.

REPLENISHMENT RULES

- Oracle Fusion Cloud Warehouse Management System performs critical dimension checks while determining candidate locations for replenishment.
- You can enable **Perform Critical Dimension Check** from the **Replenishment Template View, Replenishment Rules** screen so that you can determine replenishment space available for incoming IBLPN/Items.
- During allocation from Standalone Replenishment, Wave-based, and Reactive Replenishment, as long as **Perform Critical Dimension Check** is enabled in the replenishment rule, the system will perform LPN type critical dimension checks of the LPN with location dimensions.

While replenishing to Reserve locations, the system considers the LPN type or length/width/height of the container and for Active locations it is unit dimensions.

Validate Critical Dimensions for Putaway and Replenishment

Do you need to store items in a vertical space? Or perhaps, stacking width-wise in your warehouse might make things easier for the movement of logistics within your warehouse. By setting parameter values for critical dimension validation, you can ensure items can be stored using accurate storage specifications.

The following table describes the three types of dimension comparisons available:

Method to Validate Critical Dimensions	Description
Random Match	(Default) - The length, width and height of LPNs are matched to the length, width and height of locations in the warehouse.
Height Match	Height of first entity is compared with height of second entity; length and width of first and second entity will be matched at random.
Exact Match	Height of first entity is compared with height of second entity; length of first entity is compared with length of second entity; width of first entity is compared with width of second entity.

Select Critical Dimension Validation

To select your preferred method, from the **Items UI** Create/Edit/Copy pane, click on the **Dimension Validation Method** drop-down. From this drop-down, you can choose between "RANDOM MATCH", "HEIGHT MATCH" and "EXACT MATCH" as the available methods of validating critical dimensions.

> **Note:** Selecting the method of critical dimension validation is not mandatory. If the field is not set, critical dimension validation will default to Random Match logic.

In addition to this, in the **Interface Protected Fields UI**, you can also ensure your preferred method of critical dimension validation is persistent across transactions.

For example:

During cartonization, it is possible that if an item has been validated based on "HEIGHT MATCH" and before putaway if the new field is changed to "RANDOM MATCH", the box could be oriented and placed in any fashion in the Reserve Location.

From the Create/Edit/Copy pane of the **Interface Protected Fields UI**, select **Dimension Validation** from the Column Name drop-down to prevent any scrambling of critical dimension validation methods between or while running multiple transactions.

You can also set your preferred method of critical dimension validation in the Item Interface.

> **Note:** It is not mandatory to enter a value for this field and if no value is sent, the default would be blank which will be interpreted as "RANDOM MATCH" on Item View.

Validate Dimensions for an Active or Reserve Locations

To further support critical dimensions, the "*validate-critical-dims*" parameter, (in the RF Putaway (rf.inbound.cwrfputaway) module) allows you to validate the dimensions of an Active or Reserve Location. If the

parameter is set to YES, the dimensions of the Location (Active or Reserve) are validated against the dimensions of the Item or IBLPN that is being putaway to that Location.

> **Note:** By default, the validation logic follows a RANDOM MATCH approach where any dimension of first entity is compared with any dimension of the second entity after sorting the dimensions of both the entities in descending order.

You can assign the (random/height/exact) values corresponding to your preferred critical dimension validation methods, as discussed previously, via the "Dimension Validation" drop-down in Item View or "Dimension Validation" item field in the Item Interface screens.

Define Dimension Validation for Wave-based, Standalone, and Reactive Replenishment

You can define dimension validation for Wave-based, Standalone, and Reactive Replenishment using a new flag **"Perform Critical Dimension Check."**

From **Wave Template -> Replenishment Rule**, check the flag **"Perform Critical Dimension Check"**. Based on the values you have set on the **"Dimension Validation"** field in the **Items UI**, the dimensions of the Active Location (for Wave-based Replenishment) and Reserve/Active Locations (for Standalone and Reactive Replenishment) are validated against the dimensions of the item that is being replenished to that location.

With the flag **"Perform Critical Dimension Check"** checked on the replenishment rule, the values in the **"Dimension Validation"** field for Item/LPN will be interpreted as follows:

- For value 0 or Null, "RANDOM MATCH" logic is followed for the replenishment.
- For value 1, "HEIGHT MATCH" logic is followed for the replenishment.
- For value 2, "EXACT MATCH" logic is followed for the replenishment.

With this improved functionality in Warehouse Management, the system allows you to set alternate parameters for critical dimension validation.

Steps to Enable

- To enable Critical Dimension Checks during RF Putaway and RF IB Sorting: Set the validate-critical-dims screen parameter to Yes on these screens.
- To enable Critical Dimension Checks during Directed Putaway Location API: Set the validate_critical_dimensions_flg parameter to Yes.
- To enable Critical Dimension Checks during wave-based replenishment, standalone or reactive replenishment: Update the “Perform Critical Dimension Check” flag on the replenishment rule to checked.

> **Note:** This feature also needs the value of item.dimension_validation_method to be populated with either 1 or 2. If the value is 0 or NULL, then critical dimension validation will happen via RANDOM MATCH logic.

Split LPN Flow for Cart-Based Putaway

The Putaway Cart process supports splitting an Inbound License Plate Number (IBLPN) across multiple active locations. This feature optimizes warehouse storage and dynamically allocates inventory based on real-time space availability.

Split IBLPN Across Multiple Locations

The system allows an IBLPN to be allocated across multiple destinations rather than a single location, improving task coordination by dynamically managing multiple tasks during putaway. This restricts overloading any single location through dynamic inventory distribution.

To Configure Split Functionality:

- **Update System Settings:**
  - Navigate to **RF Build Putaway Cart** settings.
  - Set **split-lpn-mode** to **Split LPN Into Active Locations**.
- **Configure User Preferences (Optional):**
  - Adjust the **split-alloc-uom** setting based on unit allocation needs.
  - Available options:
    - Units
    - Packs
    - Cases
    - Cases/Packs/Units

Critical Dimension Checks and Putaway Cart Compatibility

The system enforces critical dimension checks and ensures item compatibility with storage zones through advanced filtering and compatibility rules.

To Configure Critical Dimension Check:

1. **In the Screen UI, configure the validate-critical-dimensions parameter for the following modules:**
   - rf.inbound.cwrfputawaycart
   - rf.inbound.cwrfbuildputawaycart
2. **Select the Module and click Detail.**
3. **Click Edit and choose the Module parm option.**
4. **The configuration will be updated and displayed on the Modules screen.**

> **Note:** In the Item UI, when creating an item, there is an option called "Dimension Validation Method." You can select one of the following from the drop-down list menu:

- Random Match
- Height Match
- Exact Match

The system enhances adaptability to diverse Putaway processes through task filtering and compatibility rules. By enabling concurrent task execution based on compatibility, warehouse operations improve efficiency and reduce incorrect item placements. The compatibility rule checks ensure proper alignment of inventory with specific zones and storage conditions. A broader set of columns is available for filtering tasks during creation, enabling precise inventory management.

Note:

- Upon scanning an IBLPN and placing it in the Putaway cart, the system automatically de-palletizes it to streamline task-based inventory movements. This applies to both split and non-split inventory. For split inventory, each unit is treated individually, whereas for non-split inventory, it is managed as a whole unit throughout the process.
- The automatic de-palletization process removes the pallet link to decouple inventory from the pallet, clears pallet positions for accurate storage tracking, and logs inventory movements automatically for audit and traceability. If an LPN fails the compatibility rule check, the system restricts de-palletization, ensuring accurate inventory adjustments.
- If a re-sequencing issue occurs during RF Putaway (Ctrl+K), the system displays the message: 'Resequencing for task failed.' This message appears only if LPN updates succeed but re-sequencing fails, allowing quicker troubleshooting and error resolution.

Replenish Multiple SKUs to Dynamic Active Locations

You can generate Replenishment allocations of multiple sku's to single dynamic Active Locations as part of a picking wave. If the location has capacity, replenishment to dynamic active locations during a picking wave are created until the order need. There is no limit enforced on the number of sku's that can be replenished per location. If you are operating under space constraints, you can benefit using this feature.

You can replenishment with a picking wave and be able to replenish more than one sku to single dynamic active locations.

Replenishment of more than one sku to single dynamic active locations can happen in single waves or across waves. The capacity configured for the location will drive the incoming inventory to the location.

Note: It is recommended that you set the capacity of the location based on Weight or Volume as multiple sku's can go to a single dynamic active location.

Assumption

More than one sku can now be pushed to a single dynamic active location, and currently there is no cap on the number of sku's per location. Location capacities have to be configured appropriately so that the same location is not always replenished.

The following are important things to be aware of for this feature to work:

1. Ensure that the target dynamic active location has the "allow multi-sku" flag on the location set to "yes".

   Note: If the location does not support multi-sku, this feature will not be supported.

2. Ensure that the Replenishment type is configured for the item under Item Facility and that replenishment zone to replenishment type mapping is configured appropriately through the **Replenishment Type Zone Xref** UI.

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

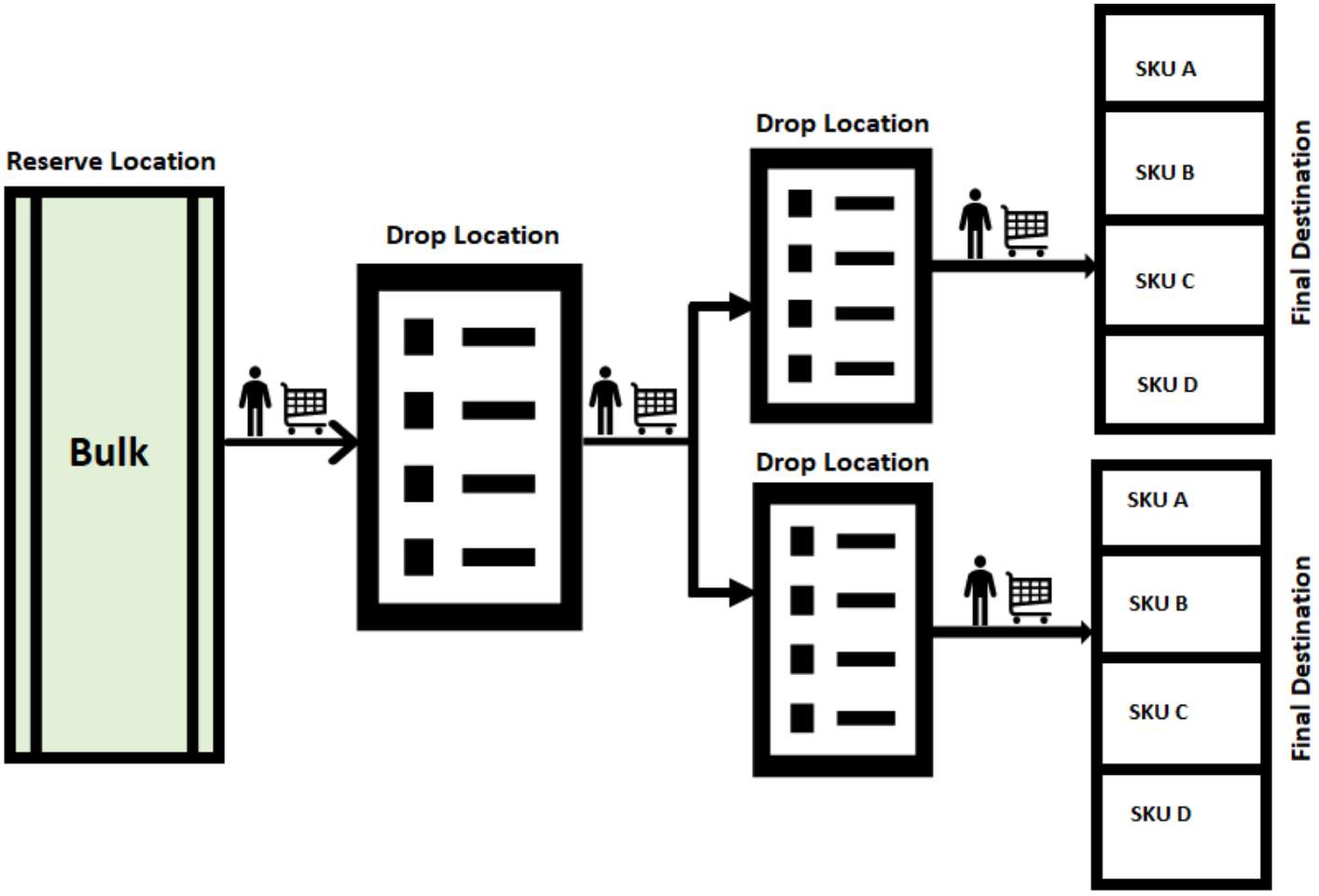
Multi-Level Replenishment allows users to keep destination locations (final destination location /pick face) constantly stocked with products, so that pickers can efficiently fulfil orders without waiting for the system to replenish inventory when available.

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**" checkbox.

> **Note:** This flag is applicable only for Multi-Level Replenishment. This does not apply to Standalone replenishment or or any other type of replenishment.

Wave Template UI Enhancements

The hyperlinks in the Wave Template UI helps you in performing CRUD operations in Task Creation Templates and Cubing Rules.

- **To Use Hyperlinks:**

1. Go to **Wave Template** UI.
2. Click the **Task Creation Templates** hyperlink.

The **Task Creation Template** screen opens.

1. Select the **Task creation Template** to view or modify the associated configuration as needed.

> **Note:** Similarly, you can perform for the Cubing Rule.

Task Zone Movement

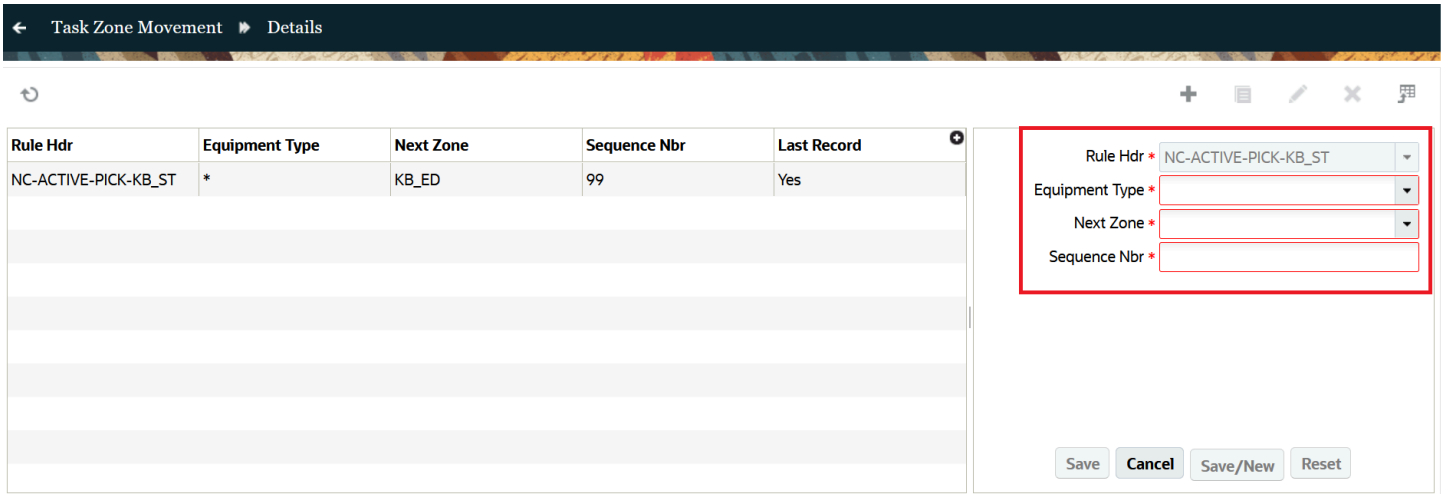
In a multi-level replenishment flow, creating a task zone movement is important because every unique path must have a task zone defined.

> **Note:** Every unique path will have the task type created and the corresponding task zone movement rule.For example, you may want to create a task zone movement for the following:

- Source to Final Destination – one task zone movement is created with * baring the end zone.
- Drop zones to Final Destination – Distinct task zone movement should be created with the relevant path.

Task Zone Movement Rule

Define the task zone rule for every task zone movement by entering the mandatory information in the field as shown in the screen below:



Note: These rules are triggered based on allocations as the driver. However, there is one type of replenishment where the allocation is NOT directly related to the final location. Mode 3 replenishment or Consolidate and Replenish creates allocations differently and if this wave is creating those types of tasks (consolidate_and_replenish) and allocates (internal_pick) then this rule wont work.

Restrict LPNs from Going to Different Task Zones

The Zone Movements allows you to efficiently move the LPNs from one drop location to another, ensuring a well-organized replenishment process. You can avoid any uncertainty and monitor the LPN combining via "Build Replenishment Cart (rf.inbound.cwrfbuildreplencart) " transaction.

The "Build Replenishment Cart" transaction enables you to create replenishment carts for moving LPNs from source locations to various drop locations, and final to the destinations. By utilizing this feature, LPNs that are not intended to be combined and can be restricted from being added to the same replenishment cart.

To define the restrictions for LPNs within replenishment carts, follow these steps:

1. Go to module **RF Build Replenishment Cart** and click **Screen Parameters**.
2. Select the "restrict-lpns-by" parameter and click **Edit** to configure **Parameter Value**, and **Module Parm Choice**.
3. Set the following fields:
    - Module Parameter: Displays the parameter name
    - Parameter Value: Enter the value
    - Module parm choice:
        - **Next Task Zone** When scanning an IBLPN whose **Next Zone does not match** that of the LPNs present on the cart. the application displays the error message: "Cannot Mix LPN with Next Zone % % as LPN's in the Cart have Next Zone % %."
        - **Final Task Zone** When scanning an IBLPN whose **Final Task Zone does not match** that of other LPNs already present on the cart, the application displays the error message: "Cannot Mix LPN with Final Zone %% as LPN's in the Cart have Final Zone % %."

This helps you streamline replenishment activities by efficiently moving LPNs from source locations to different drop locations and final destinations. The "Build Replenishment Cart" transaction with the "restrict-lpns-by" parameter ensures LPNs are appropriately controlled, preventing unintended mixing and confusion during the replenishment process.

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.

> **Note:** Once you configure a task template at the wave group level, you can combine **multiple allocations** from different waves into a task as per the requirement. To create tasks in a wave group, define the Task Creation Template at the wave group level and do not define the task creation template at the individual wave level.

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.

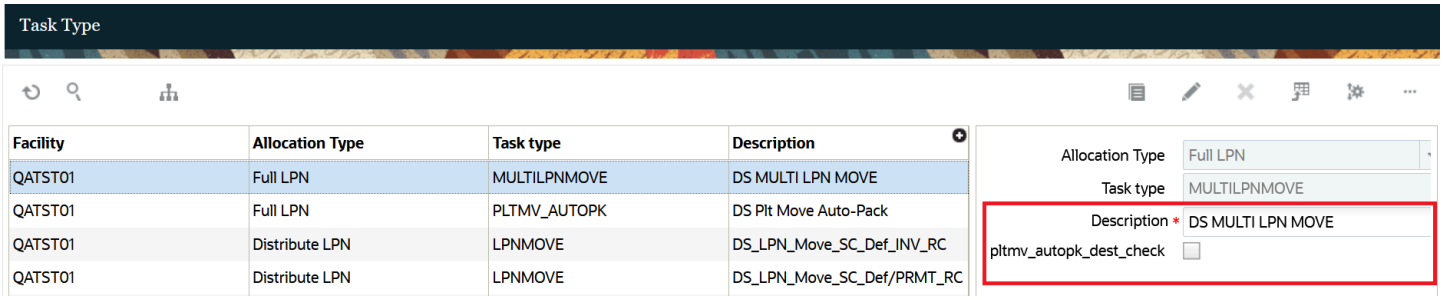
Task Creation Template is a set of instructions given to the user to perform tasks to satisfy the need. The task creation template is defined by configuring the following parameter:

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.

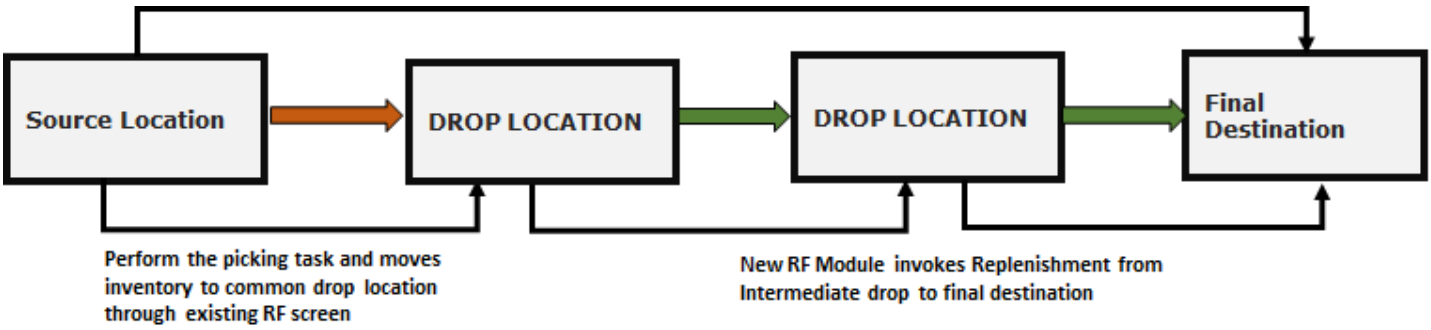
> **Note:** A task type for Full LPN Replenishment is created to pick inventories from a source location to the first drop location.



Multi-Step Replenishment Module

The mobile Multi-Step Replenisment 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 Mobile module is used:



The following are some of the characteristics of the Multi-Step Replenishment 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:
   - If the source location has inventory to satisfy the need/demand of supply in destination location.
   - Once inventory is available in the source destination location, the system prioritizes which location to replenish first based on the following filter:
   - If the filter criteria is set to current quantity <= minimum, then system considers inventory from the source location which are destined to pick locations having current inventory less than or equal to locations configured minimum. If multiple locations are found, the system will order the locations in ascending order of putaway sequence.
4. After determining the source and destination, the system prompts you to pick the relevant quantity of inventory in the temporary tote and deliver to intermediate drop locations and then to final destinations.

Mobile Configuration Setup

The following are the Mobile configurations that you need to configure before executing the Multi-Level Replenishment flow:

- Go to the Mobile Screen UI.
- Set the following Mobile 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.

Parameters	Description
task-type-description	Enter description that corresponding to valid task type:CONSOL-REPLEN. By default, the field is set to blank.
qty-uom	Set the quantity of inventory in unit of measure of units, packs, and cases. By default, the value is set to Units.
pick-for-single-destination-locn	System prompts only one destination location for which the inventory should be picked from the source location. By default, the value is set to no.
dest-locn-inclusion-criteria	System to determine via the destination location to replenish through the filter criteria. When the flag is set, system considers only locations whose current inventory is <=configured locations minimum when the value is "current<=locn minimum".

Kitting

Kitting is the process of assembling child items to create a parent item or a kit. The ratio of child items required to create a parent item is called pre-pack ratio and pre-defined in WMS. De-Kitting is the process of dis-assembling parent items or kits into child items. In order to assemble or dis-assemble parent items, Work Orders are required. The assembly or dis-assembly of parent items takes place in assembly locations.

There are two types of kitting flows in WMS - **Make To Stock** and **Make To Order**.

Make to Stock – The main objective of Make to Stock flow is that, the parent items or kits are assembled beforehand and putaway to stock in anticipation of future Outbound Order for the parent items. In this flow, a Work Order is either interfaced into WMS or created from Work Order view. After parent items are assembled using this Work Order, WMS prompts you to pack the parent items into Inbound LPNs. The Inbound LPNs are then putaway to stock (reserve locations). These parent items can be picked later against outbound orders, packed, loaded and shipped out like any regular item.

Make to Order – The main objective of Make to Order flow is for the parent items or kits to be shipped out based on the Outbound Order sent to the facility. In this flow, a Work Order is automatically created in WMS when an Outbound Order with a specific Order Type is interfaced into WMS. The Work Order has a reference to the Outbound Order. So when the parent items are assembled using this Work Order, Oracle WMS Cloud prompts you to pack the assembled parent items directly into Outbound LPNs against the Outbound Order. The OBLPNs can then be loaded and shipped out like any other OBLPN.

Note:

- Parent Items are also called Kit Items
- Child Items are also called Component Items
- Ratio of child items required to create a parent item is called pre-pack ratio

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 requried_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 requried_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’.

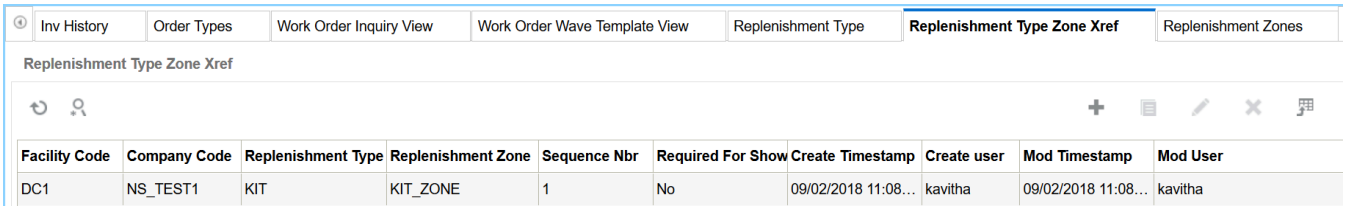
> **Note:** The scrap percentage will not have any impact on the serial prompt for the KIT items. Serial numbers are not prompted for the underlying child items/components consumed as part of kit operations and also serial numbers will not be prompted for child components created as part of the disassembly 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.

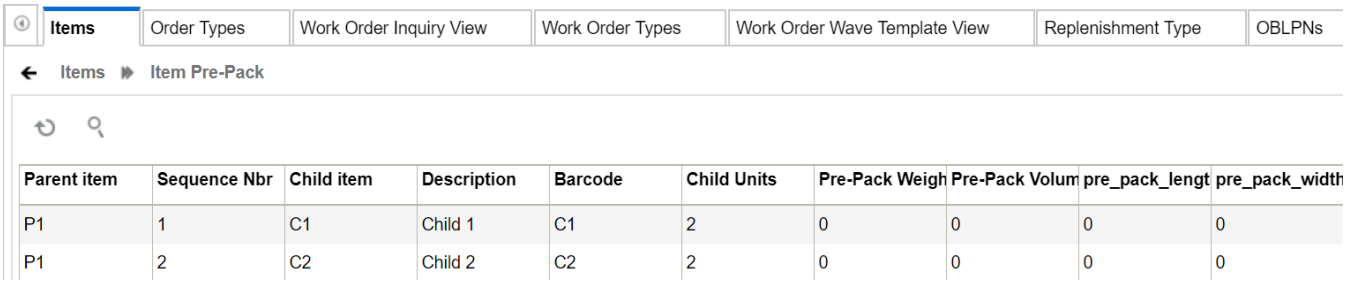
1. From the Replenishment Type UI, create a Replenishment Type for kitting.
2. Create a Replenishment Zone for kitting.

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.

Assembly Flag: If checked, flags a location where inventory is brought to to be assembled into a different SKU.

> **Note:** The assembly flag needs to be enabled for work order processing in WMS. In order to avoid confusion between work order processing locations and picking locations the replenishments will not consider the assembly locations in normal replenishment. In Work order waves, only assembly locations will be considered.

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 Flow*** and ***Make to Order Flow*** .

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

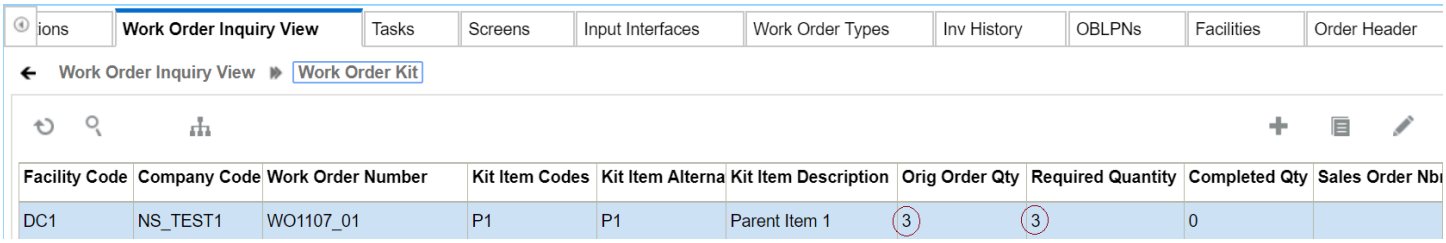
flow is typically performed if there is a need to ship individual child items from the facility and there are not enough child items to fulfil the need immediately.

Work Order Creation

Create a Work Order Type with Activity Type as Dis-Assembly.

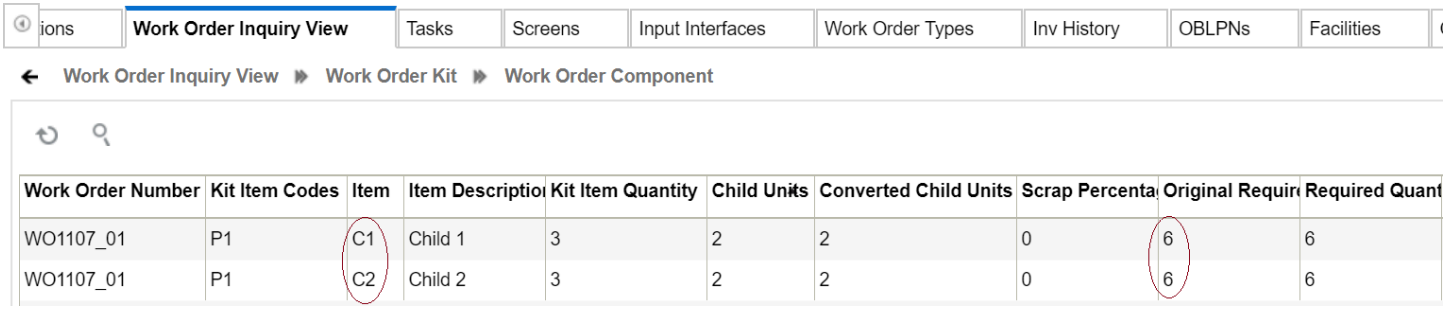
Interface a Work Order into WMS with the above Work Order Type on the Work Order. You can also create the Work Order from Work Order Inquiry view.

This Work Order has been interfaced to dis-assemble three units of parent item P1.



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.



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

Work Order Type

Work Order Types are used for assembling and disassembling items. Accordingly, Work Order Types are of the following two types :

- **Assembly** when you need to perform ‘kitting’ or putting together Child Items into a Parent Item.
- **Dis-Assembly** when you need to perform ‘de-kitting’ or breaking up of a Parent Item into Child Items.

You can configure the work order type to assemble or dis-assemble operations through the **Work Order Type** UI.

To configure Work Order Type, do the following:

1. Go to the **Work Order Type** (WorkOrderTypeView) module.
2. Click the (+) icon and enter the details for the following mandatory fields (marked with "*") :
    - **Work Order Type *** : Enter a suitable name for the work order type.
    - **Description *** : Enter a description for the work order type.
    - **Activity Type *** : Allows you to choose the activity type (assembly or dis-assembly).
3. Configure the work order type with following options listed :
    - **only_deallocate_on_short** : By enabling, the system reduces only the allocated quantity upon shorting.
    - **Allow Prepack Override** : By enabling, the item prepack configurations can be overridden.

- **Partial allocation** : By enabling, you can perform allocations partially.
- **Autocreated Work Order Backflush** : By enabling, you won't be prompted to confirm the components consumed during assembly.
- **Allow Expired Inventory** : Allows you to allocate expired inventory. This option is enabled by default. Un-check the option to disable allocating the expired inventory.

Allow Pre-Pack Override in Work Order Type UI

You can send child items for the given Kit items during Work Order creation. This change is used by organizations where construction of the Kit item requires large child items and assembly locations in such organization may not have enough space to keep all child items, or the Kit items construction involves multi-step process. This also helps organizations that cater to promotional offers, or unavailability of few child items that can be replaced by another child items.

The "Allow Prepack Override" is introduced in the Work Order Type UI. This new flag allows you to:

- Define any child items for the Kit item associated with the Work Order.
- Supports creation of Work Order for both Assembly and Dis-Assembly activity type.

- When flag "Allow Prepack Override" is set to Yes:
  - The system allows you to create Work Order with any child items. Additionally, you can send child quantity that is required to create prepack item.
  - If you don't specify the child items during the Work Order creation, the system considers the child items for the given Kit item based on the prepack definition defined against the respective Kit item.

- When the "Allow Prepack Override" flag is set to No:
  - By default, the Allow Prepack Override value is set to No/blank.

- You can create the Work Order as per the prepack definition defined against the respective Kit item. If you define any child item that is not matching with the respective prepack configuration, an error message will be displayed. User will see error message.

Work Order UI

- When a Work Order has the work order type enabled with "Allow Prepack Override" flag, this allows you to:
  - Create/Edit/Delete the child components for a given Kit item.
  - Define the Child Item and Child Units in the Work Order component sub-UI against a Kit item.

- By default, you can view the child items as per prepack definition defined for Kit item for the given Kit item in the Work Order Component sub-UI.

> **Note:** You can select the single Kit Item in the Work Order Kit sub-UI to define child items. We don't recommended to multi-select Kit items and then modify or define the child items against Kit item.

Work Order Interface

- New fields are added to the Work Order interface at Work Order Component level:

- “child_qty”: Respective child quantity required to construct one unit of Kit item.
- “scrap_percentage”: Scrap percentage of respective child quantity gets disputed during assembly process.
- “kitting_instruction”: Instructions against child item for assembly/ disassembly. Instruction sent can be viewed only in the Work Order Component sub-UI.

- When a Work Order is created from the Interface with work order type enabled with “Allow Prepack Override” flag allows you to:
  - Send any child items against the Kit item.
  - On sending child items which are not as per prepack configuration, then user has to send the Child Units. You need to send the Child Units if the sent child items are not as per prepack configuration.
  - On sending child items as per prepack configuration, then the system considers Child Units as per prepack definition. If you send different child quantity, then the quantity value is sent in the Child Unit field.

Note: For Kit/Parent items, the current child units value in the **IBLPN** (Make To Stock Flow) or **OBLPN** UI (Make To Order Flow) will be displayed as per the respective item prepack configuration. Since the system allows you to send any child item during dynamic Bill of Material (BOM) flow, the kit Item created through the dynamic BOM flow may not reflect the correct value. This is because the kit item always points to the Item prepack configuration. Customers using a dynamic BOM flow, should not refer to the current child units value in the IBLPN (Make To Stock Flow) or OBLPN (Make To Order Flow) UI to determine the child units associated with the Kit Item.

Kitting and De-Kitting

For de-kitting, after running the Work Order wave template for Work Order defined with dynamic Bill of Material (BOM), the system creates replenishment allocations to assembly locations as per the Kit Item defined in the respective Work Order. De-kitting process will break down the Prepack Item (Kit Item) as per corresponding de-kitting or disassembly Work Order. An ERP system will know the corresponding Component Items.

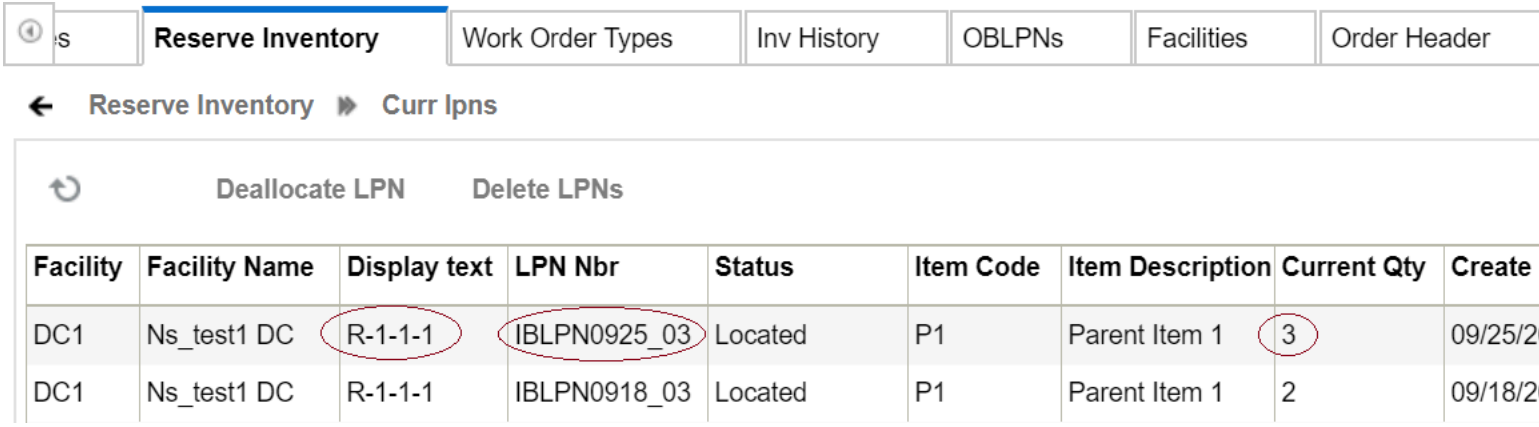
For Kitting (Assembly), after running the Work Order Wave Template for Work Orders defined with dynamic BOM, the system creates replenishment allocations to assembly location as per the component items defined in the respective Work Order. During de-kitting, if Kit items are allocated then it’s assumed that it is assembled with all the child items which are defined as per the definition of Work Order. After performing de-kitting child components defined as per work order will be recovered. If the Kit items are allocated during de-kitting, the system assumes that the kit item is assembled with all the child items defined as per the definition of the Work Order. After de-kitting is performed, the child components defined per work order can be recovered.

Duplicate Child Items are not allowed for a given Kit Item during Work Order processing. To delete any child item as part of Work Order processing, you must delete the child component from UI. Or else, you can process the the Kit item by defining required child item with CREATE action code, and Work Order Header action code as UPDATE.

This functionality allows you to receive the required child items against the Kit item on need basis rather than sending all the child items at once during work order creation.

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.



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.

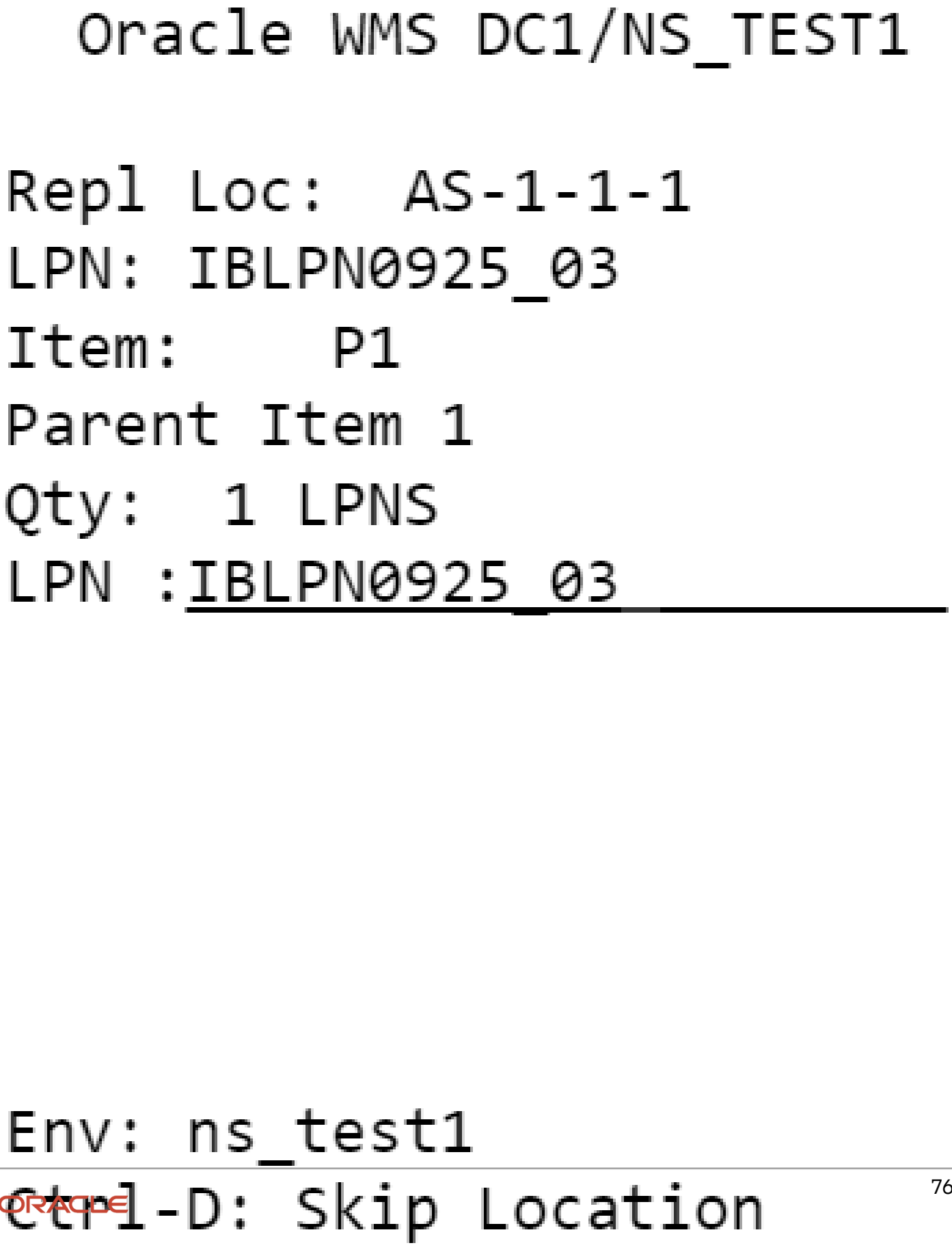
```
  Oracle WMS DC1/NS_TEST1

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

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: WO1107_01
IBLPN: IBLPN1107_01
P1
Parent Item 1
Pending Qty: 3 (3)
Qty: 3_____
```

```
Env: ns_test1
Ctrl-D: Skip Kit
Ctrl-E: End LPN
Ctrl-K: Cancel Kit
Ctrl-T: View Components
Ctrl-V: View Instructions
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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.

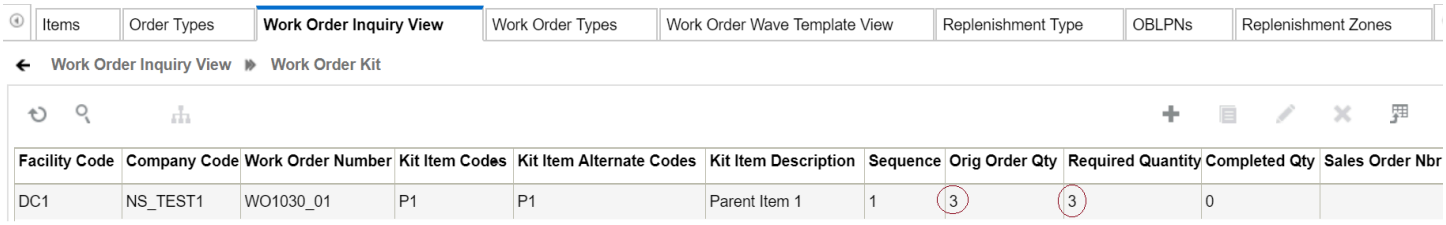
Make to Stock Flow

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.

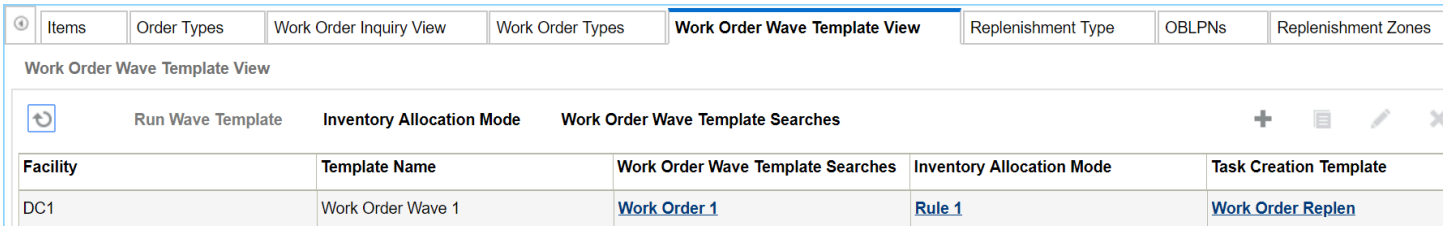
This Work Order has been interfaced (or created) to assemble three units for parent item P1.



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	

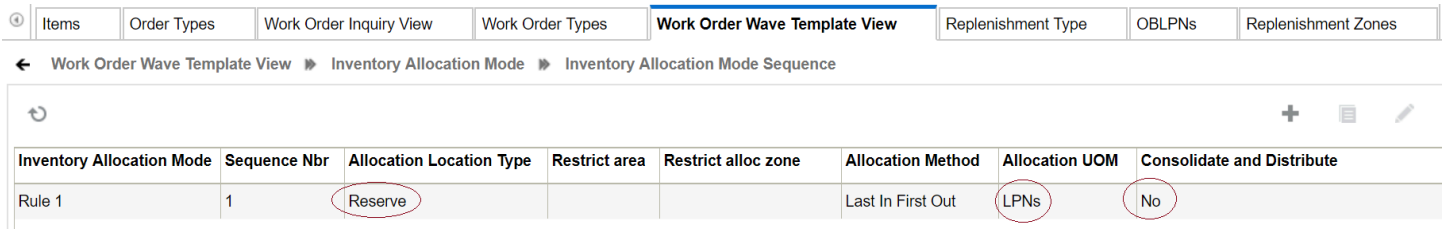
Work Order Wave Template

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.



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.



...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.

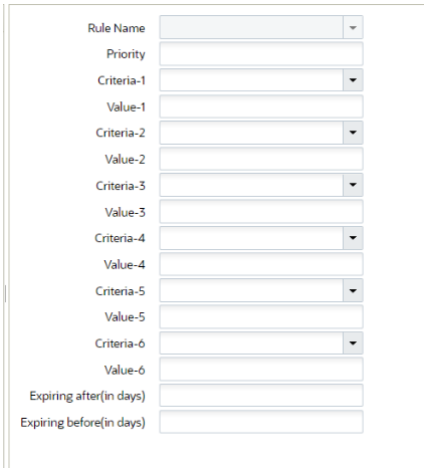
To define the expiry date rule for your work order

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.

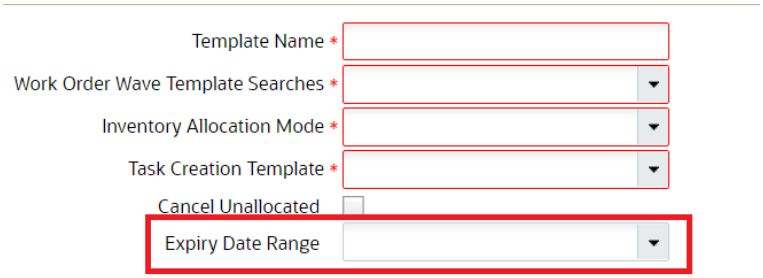
2. On the Expiry Date Range UI, you can define the rule name and description. The Expiry Range Header UI has following fields:

   Expiry Date Range Header:

   - Rule Name
   - Priority
   - Criteria-1 to 6
   - Value-1 to 6
   - Expiring After (in days): Number of days in numeric value.
   - Expiring before (in days) : Number of days in numeric value.



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.



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.

Note: The Expired Inventory Flag on Work Order Type is not Honoured in Work Order Wave.

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".

Work Order Status

You can recalculate Work Order statuses automatically to reflect real-time inventory and activity conditions via Work Order Interface to ensures that discrepancies are minimized by aligning system status with real-time conditions.

NOTE: This button is permission-controlled; users must enable the permission at the group level to access it.

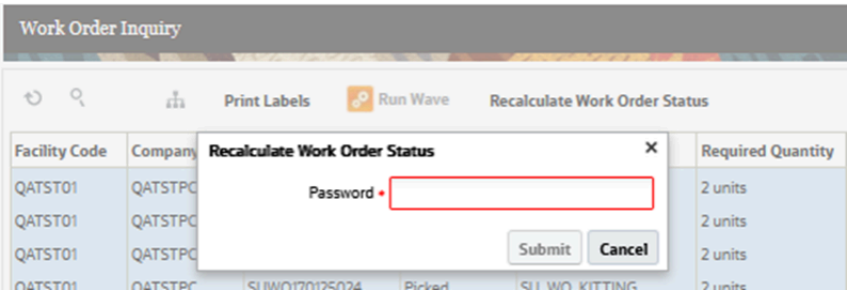
The system recalculates the Work Order status according to the following rules:

Work Order Header Status	Conditions
Created	No allocations for the Work Order.
Partly Allocated	Partial allocations exist but are less than the required quantity.
Allocated	Allocations meet or exceed the required quantity, but replenishment has not started.
In Picking	Replenishment starts after full allocation, but picking is incomplete.
Picked	Picking is complete but Work Order processing is not started.
In Progress	Work Order Kit Process has started but is incomplete.

Completed	Work Order Kit Process is complete, and all required quantities are fulfilled.
Canceled	All required quantities are zero.

Steps to enable:

1. In the **Work Order Inquiry** screen, select the desired Work Orders.
2. Click the **Recalculate Work Order Status** button.
3. Enter your password when prompted.



1. Click **Submit**.

Upon successful verification, the system recalculates the status for the selected Work Orders based on the current conditions.

After recalculating, the system displays a message indicating the results:

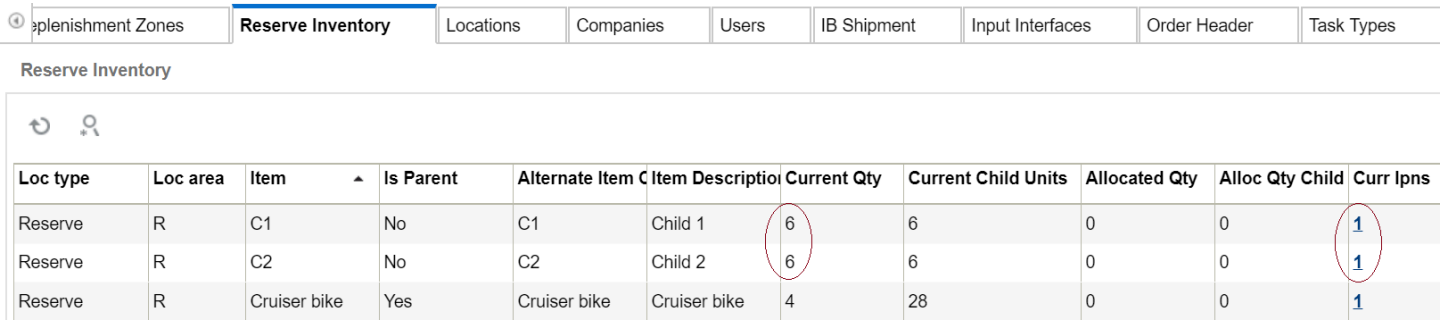
"Status recalculated for X of Y Work Orders"

- **X**: The number of Work Orders successfully updated.
- **Y**: The total number of selected Work Orders.

> **Note:** The recalculation process ensures that Work Order statuses accurately reflect real-time conditions, such as inventory allocations, picking progress, and completion.

Inventory

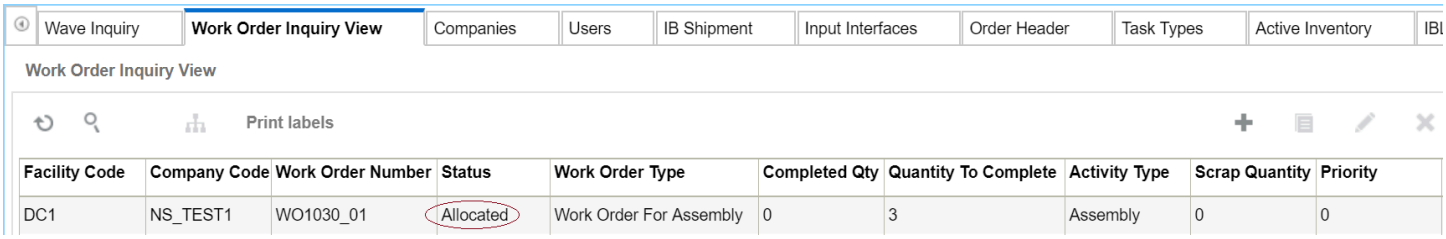
Ensure that there are LPNs in reserve locations with enough child units.



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.



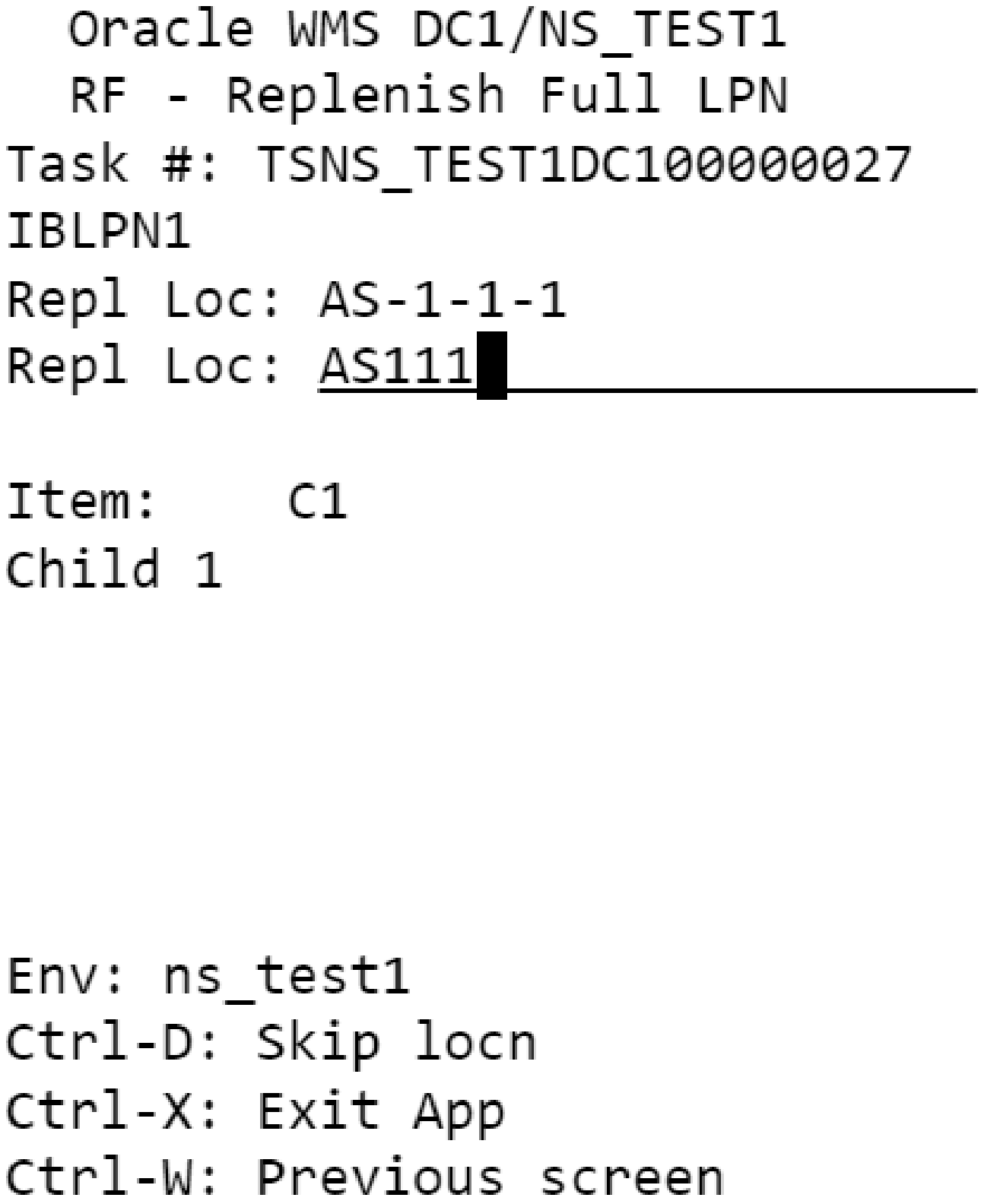
Tasks are created to replenish child items from a reserve location to an assembly location.

Task Execution

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



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.

Parameter Name	Parameter Choices	Behavior
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

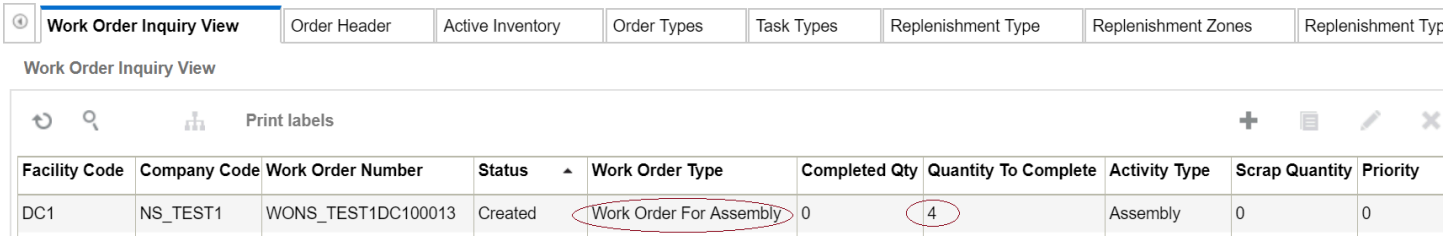
Create an Order Type for the Outbound Order. This Order Type needs to have the Work Order Type populated which is described in step 7 in the *Configure Kitting Process* section.

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

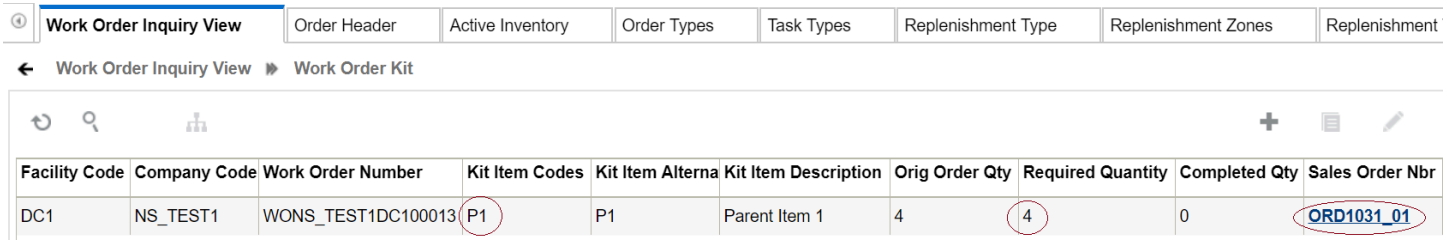
Interfaced Work Order Detail

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.



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.



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

6 Cloud SCM Integration

SCM Reconciliation Workbench

Dealing with errors and failures when integrating your Warehouse Management System (WMS) and Enterprise Resource Planning (ERP) system through Oracle Integration Cloud (OIC) can be challenging! Do you struggle to identify and resolve issues across multiple systems and when errors occur, you might must navigate through multiple systems to find and fix them. This can be time-consuming, cumbersome, and may decrease your productivity.

The **Reconciliation Workbench** helps you to simplify error management. This centralized dashboard collects error information from WMS, ERPs, and OIC, providing a unified view of errors and failures.

The Reconciliation Workbench allows you to:

- Quickly identify errors and diagnose issues
- View a clear and concise overview of errors and failures
- Navigate to specific sub-types for specific information

Included Benefits

- **Save Time and Effort**: Resolve issues faster with a single dashboard that merge error information.
- **Get Clear Visibility**: Easily view errors and failures across multiple systems.
- **Simplify Troubleshooting**: No more navigating multiple applications to resolve errors.
- **Boost Productivity**: Focus on higher-value tasks and improve performance.

By using Reconciliation Workbench, you can streamline your error resolution process and improve your overall operational efficiency.

Before You Begin

To access the Reconciliation Workbench Dashboard and fetch error counts for your desired integration type, you need to set the configurations in WMS and OIC.

WMS Configurations for SCM Reconciliation Workbench

Configure Modules in WMS

Add the following modules to your respective group menu before accessing the SCM Reconciliation Workbench interface.

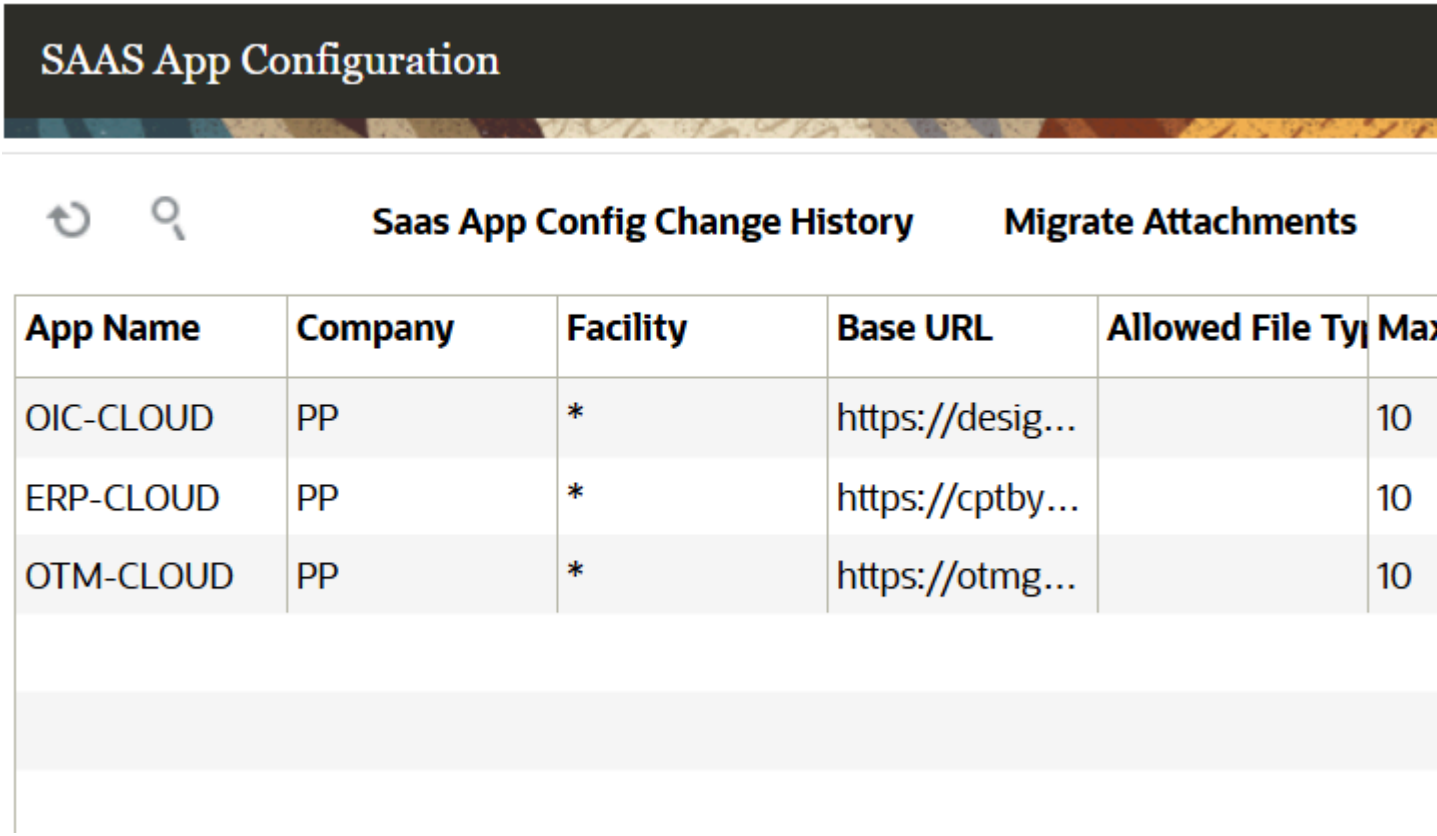
- Reconciliation Workbench UI (ReconciliationDashboardView)
- Inventory Discrepancy UI (InventoryDiscrepanciesView)
- ERP Inventory Summary (ErpInventorySummaryView)
- WMS Inventory Summary UI (WmsInventorySummaryView)

Configure OIC-CLOUD and ERP-CLOUD in the SAAS App UI

In the Reconciliation Workbench, all errors from WMS, Fusion Inventory and, OIC are fetched and displayed in a user-friendly dashboard. To investigate further and improve error handling, you're directed to OIC and ERP error screens for more information.

The **SaaS App Configuration** UI includes the following options and parameters in the App Name drop-down list:

- OIC-Cloud
- ERP-Cloud



Base URL Field: You're required to define the Base URL for the relevant application and create records. This URL redirects/access data from other application.

To display errors in the Workbench from WMS, ERP, and OIC, you need to configure OIC and ERP apps in the **SaaS App Configuration** UI.

1. Go to the **SaaS App Configuration** UI.
2. Click Create (+) and select either OIC-CLOUD or ERP-CLOUD from the Apps Name drop-down list.
3. Select Company and Facility from the drop-down lists.

   You can either choose * to select all companies/facilities or a specific one.

4. Define the Base URL for the relevant application and create records:
   a. After you select **OIC-CLOUD**, the parameter fields are labeled as “App parm3”, “App parm4,” and so on.

      IMPORTANT NOTE: These field names don't indicate their purpose within the **SaaS App Configuration** screen. Please see the following table for each parameter’s representation and format required. If you need extra information to complete the following fields, contact, *Oracle Product Support* via an SR.

      SaaS App Fields

Field Name	Description	Sample Format
Base URL	Base URL defines the relevant application and create records. This URL will redirect users to the respective applications. For more information on the Base URL (Design-time URL) – see *Using Integrations in Oracle Integration 3*	sample: https://des xx-1.oxx.oc-test.cor
App parm3	Enter the Integration Instance. You can find the Oracle Integration (OIC) runtime URL in the Oracle Cloud Infrastructure (OCI) Console by navigating to the specific OIC Integration instance’s details page and look for the “**Runtime URL**”. Alternatively, if you have the instance name, the general format is: sample: https://[instance-name].integration.[region].ocp.oraclecloud.com with the full runtime path following the base URL.” The “instance-name” is provided in the OIC “About Box”. For more information on the App parm 3 URL (Runtime URL) – see *Using Integrations in Oracle Integration 3*	sample: https://[in
App parm4	Enter the Scope You need to go to your OIC-integrated application’s Oauth configuration in your respective OCI domain to fetch this App parameter.	sample: https://xx xxxxxxx-1.ocp.oc-te
App parm5	Enter the Access Token URL The Oracle Cloud Infrastructure (OCI) Identity Cloud Service (IDCS) token URL is the base IDCS URL with `/oauth2/v1/token` appended. You can find your specific IDCS base URL by logging into the Oracle Cloud Console, and it will look like: sample: https://{your_tenant}.identity.oraclecloud.com/ The full URL to obtain a token would then be: https://{your_tenant}.identity.oraclecloud.com/oauth2/v1/token	sample: https://{yo

Field Name	Description	Sample Format
App parm6	Enter the Client ID In your OCI Instance follow the path “Identity and Security” --> Domains --> select the domain that hosts the OIC instance. From the Domain screen, click “Oracle Cloud Services” tab. Search or browse to your OIC application, click to open	Click “Oauth Config General Information
App parm7	Disabled	NA
App parm8	Enter the Client Secret In your OCI Instance follow the path “**Identity and Security” --> Domains -->** select the domain that hosts the OIC instance. From the Domain screen, click the “Oracle Cloud Services” tab. Search or browse to your OIC application, click to open.	Click “Oauth Config General Information

b. On selecting **ERP-CLOUD**, configure your environment with the following field information:

Configurations Fields for ERP Cloud

Field Name	Description	Sample Format
Base URL	Base URL defines the relevant application and create records. This URL will redirect users to the respective applications.	sample: https://xxxxxxxxx.fusionapps.xxx.xx-test.com
App parm3	Enter the user name (Basic Oauth authentication is used)	User001
App parm4	Blank	NA
App parm5	Blank	NA
App parm6	Blank	Na
App parm7	Blank	NA
App parm8	ERP Credentials	1x2x6x4x-xx27-4xx9-9991-27xxxx48xxxx

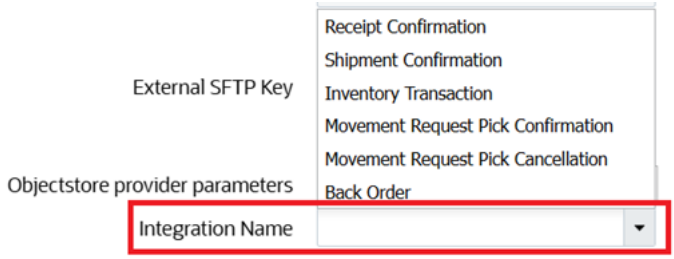
5. Click Save.

Configure Output Interface for Integration Type

In order to filter integration-related errors, and display the records on the Reconciliation Workbench Dashboard, you need to configure the integration type in the End point UI.

1. Go to the End Point UI, create, and enter all the required fields.

2. From the Integration Name drop-down list, choose to configure relevant integrations from the following



options:

- Receipt Confirmation (covers both receipt and putaway confirmation)
- Shipment Confirmation
- Inventory Transaction
- Movement Request Pick Confirmation
- Movement Request Pick Cancellation
- Back Order

Note: The column 'Integration name' is displayed on the data grid to show the drop-down list value if configured. By default, this column is disabled and users need to explicitly add this column and can download the record via CSV export.

Set Schedule Jobs to Fetch Error from WMS

The Reconciliation Workbench dashboard gives you a single view of integration errors. To keep this dashboard up to date, dedicated Scheduled Jobs are introduced that automatically fetch error information from various sources.

These scheduled jobs capture error counts for specific integration processes and display them in an easy-to-understand format on the dashboard. The jobs fetch error information from following sources:

- WMS stage table
- ERP system
- OIC (Oracle Integration Cloud)

Configure Schedule Jobs for Integration Recipes

To periodically fetch errors counts, you must schedule the following Job Type for respective Integration Type:

Before you configure and run the schedule job, refer to **Important Key Notes**

1. Go to the Schedule Job UI, select the following Schedule Job from Job Type drop-down list for Integration Type:

Integration Type

Schedule Job	Integration Type	Description	Sub-type
Receipt Advice/ Confirmation Error count Multi Facility	Receipt Advice/ Receipt Confirmation	This job extracts error counts related to receipt advice and receipt confirmation from respective sub-types.	WMS – Fetches stage table error count for PO and ASN.

Schedule Job	Integration Type	Description	Sub-type
			WMS – Fetches output interface and inventory history error count for receipt confirmation.
			OIC – Fetches error count for receipt advice and receipt confirmation
			Fusion – Fetches error count for receipt confirmation.
Inventory Transactions Error Count Multi Facility	Inventory Transaction	This job extracts the error counts related to inventory transaction errors from respective sub-types	WMS – Fetches output interface and inventory history error count for Inventory transactions.
			OIC – Fetches error count for Inventory transaction.
			Fusion – Fetches error count for Inventory transaction.
Ship Request/Confirmation Error Count Multi Facility	Shipment Request/ Shipment Confirmation	This job extracts the error counts related to inventory transaction errors from respective sub-types	WMS – Fetches stage table error count for Sales Order
			WMS – Fetches output interface (SLS – Load and parcel) error count for Ship confirmation
			OIC – Fetches error count for ship request and ship confirmation
			Fusion – Fetches error count for ship confirmation
ERP Inventory Summary Error Count Multi Facility	ERP Inventory Summary	This job extracts the error counts related to inventory transaction errors from respective sub-type	WMS – Fetches stage ERP-INV-SUMMARY input interface for the ERP Inventory Summary integration type
			OIC – Fetches error count for ERP Inventory Summary integration type.
Movement Request/Pick Confirmation Error Count Multi-Facility	Manufacturing Movement Request	This job extracts error lists about Movement Request (from WMS and OIC)	WMS-Movement Request – Fetches errors for WMS-Movement Request stage error list
			WMS Manufacturing Transaction – Fetches errors for

Schedule Job	Integration Type	Description	Sub-type
			Work Order Direct transactions in WMS.
			OIC – Fetches OIC error list corresponding to Movement Request and Work Order Direct transactions.
	Manufacturing Pick Confirm/ Cancel	This job extracts respective error lists about Pick Confirm/Cancel (from WMS and OIC).	WMS- Inventory History – Fetches errors related to WMS Inventory History
			WMS-IHT – Fetches errors related to IHT
			OIC – Fetches OIC error list corresponding to Pick confirm and Pick Cancel transactions

2. Select the Schedule type and enter all the required fields.
3. Define the following common required Job Parameter:
   a. User name: We recommend that the user name provided here must have access to all facilities and companies in a 3PL environment. This is to ensure on not missing any potential error counts for specific facilities due to access limitation.

      > **Note:** If the field is blank, the system displays an error message “Missing required field/fields: %MISSING_FIELDS”.

   b. Facility code: Enter the facility. On specifying * denotes all the facilities that the user is eligible. You can provide multiple facilities with comma separated.
4. Click Save.

   After configuring the Schedule Job Type, you can run the scheduler per the schedule type to fetch the error periodically.
5. From the Schedule Job UI, select the Job type and click **Enable/Disable** button to run the schedule job type.

RECOMMENDATION: WE RECOMMEND SETTING THE SCHEDULE JOB FREQUENCY LESS THAN 24 HOURS. This is to ensure that the error counts captured is displayed on the 24-hours bar graph.

Important Key Notes to Consider before Running the Schedule Job Type:

- These scheduled job runs might get intensive. Hence, we DON'T allow creating multiple active copies of this job type or schedule the run too often.
- To limit or restrict users, a 'Prevent copy' mark in the schedule job UI is set to YES/enabled ONLY for these Job type.

  > **Note:** You can create only one active job across facilities. If you try to copy this job type, an error “Duplicate job not allowed, this job is active for facility <FAC_CODE>” is displayed.

- However, if a job is canceled at a facility, you can create an active job at another facility. But only one job can be active at a time. When a job is active at a facility, you'll not can revive the job in another facility and the same error message as above will be displayed.

- To limit the schedule job run frequency, the workbench will restrict scheduling the job to run at intervals less than 60 minutes (1 hour). If try, it will display an error “Job interval can't be less than 60 mins (new message)”.
- Also, when using crontab scheduling, only integer values will be allowed for the minute field to prevent frequent execution. Otherwise, the system displays an error “This job type supports only integer values for minutes”.

Capturing Error Count for Each Integration Recipe

We capture the error count for each integration recipe and show the corresponding error count per schedule job run. To get the errors related to the prebuilt integrations periodically from all user-eligible facilities, we introduce **an Intermediatory table** to capture these error counts for the integration types of receipt advice, receipt confirmation, ship request, ship confirmation, inventory transactions, and ERP Inventory Summary, etc, per facility and company combinations, so that the Reconciliation workbench displays an appropriate data from the table.

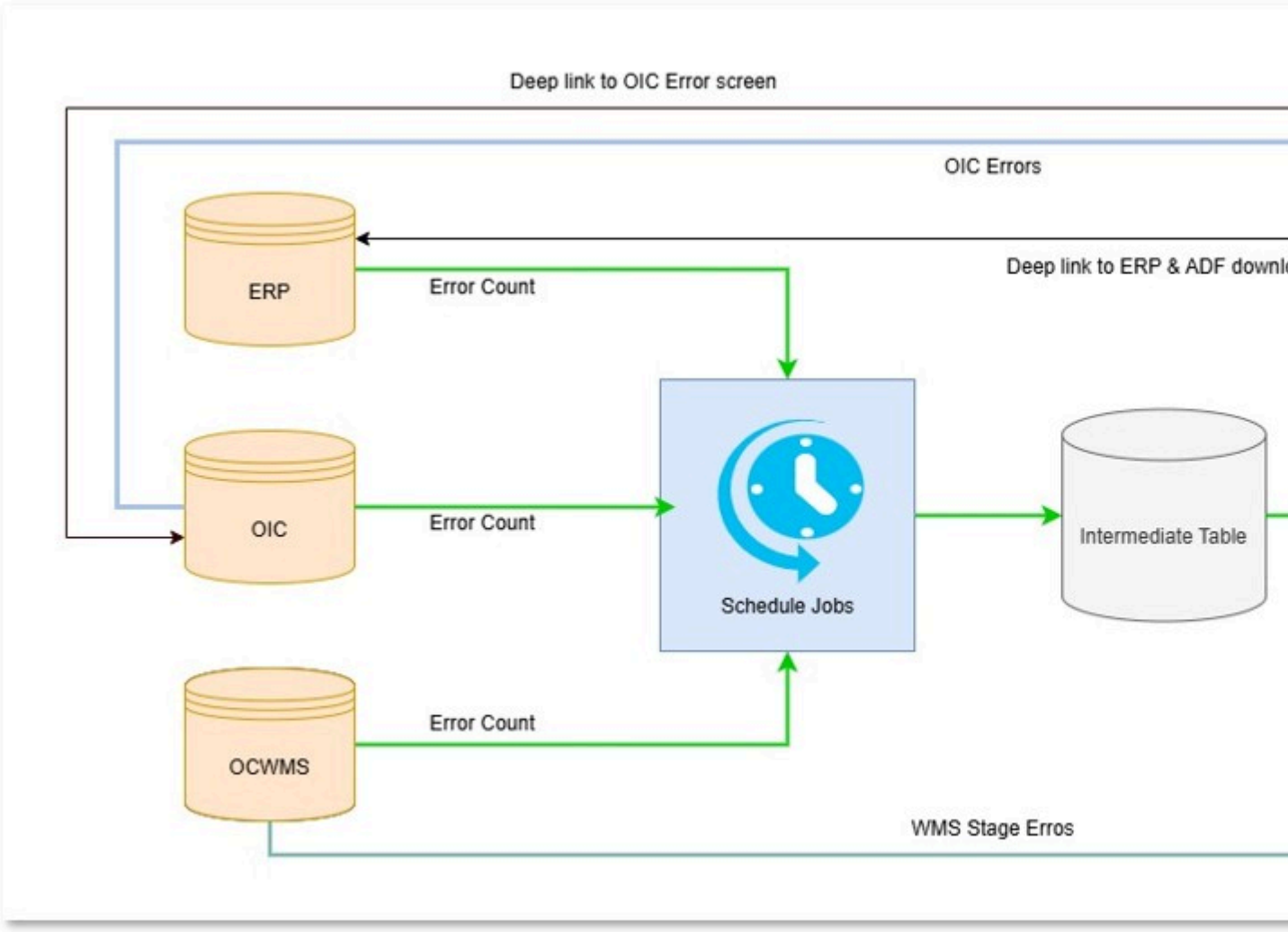
Fetch and Store the Error Counts from Intermediate Table

The mechanism of running the new schedule jobs per integration recipe and fetching the error counts data for the integration type is as follows:

1. When the schedule job is run for the first time, it fetches error count for the last 1 hour, by default.

2. During the run, the respective job type queries to fetch the error counts per integration recipe.

   For example, when the receipt advice/confirmation schedule job is run, it fetches errors from WMS and OIC (PO, ASN, PO_RMA_TO, Supplier_ASN, and RMA) for the runtime from all the facilities the user is eligible for.



3. After fetching, the intermediate table captures these records per runtime and process it to the Reconciliation dashboard.

   Note: There's no auto purge of the records, but the table stores the error counts.

Use Case 1: Fetching Error Counts on Running the Schedule Jobs for the First Time

Assuming the following errors have occurred for receipt_advice and on running the schedule job for the first time, the system fetches the error counts as follows:

1. Schedule job runs on 11th April at 6:00 AM

   Schedule Job Run

Sub type	po	asn	po_rma_to	supplier_asn	rma
Number of errors (till the run ts)	6	3	8	4	3
Number of errors last 1 hour	1	2	1	1	1

2. The Intermediate table captures the error as follows:

   Schedule Job Run

source_system	integration_type	sub_type	company	facility	error count	run_ts
WMS	receipt_advice	po	ABC	ABC01	1	11-04-2025 06:00:00
WMS	receipt_advice	asn	ABC	ABC01	2	11-04-2025 06:00:00
OIC	receipt_advice	po_rma_to	ABC	ABC01	1	11-04-2025 06:00:00
OIC	receipt_advice	supplier_asn	ABC	ABC01	1	11-04-2025 06:00:00
OIC	receipt_advice	rma	ABC	ABC01	1	11-04-2025 06:00:00

Use Case 2: Fetching Error Counts When the Schedule Job is Run in Interval/ Crontab

1. Let's say, the schedule job interval is set to 1 hour and there are few errors that take place between the two run ts as follows:

   Schedule Job Run

Sub type	po	asn	po_rma_to	supplier_asn	rma
Number of errors fetched at 6:00AM	1	2	1	1	1

Sub type	po	asn	po_rma_to	supplier_asn	rma
Number of errors created between 6:00 AM to 7:00AM	1	0	0	1	0

2. Intermediate table captures the error as follows:

Schedule Job Run

source_system	integration_type	sub_type	company	facility	error count	run_ts
WMS	receipt_advice	po	ABC	ABC01	1	11-04-2025 06:00
WMS	receipt_advice	asn	ABC	ABC01	2	11-04-2025 06:00
OIC	receipt_advice	po_rma_to	ABC	ABC01	1	11-04-2025 06:00
OIC	receipt_advice	supplier_asn	ABC	ABC01	1	11-04-2025 06:00
OIC	receipt_advice	rma	ABC	ABC01	1	11-04-2025 06:00
WMS	receipt_advice	po	ABC	ABC01	1	11-04-2025 07:00
WMS	receipt_advice	asn	ABC	ABC01	0	11-04-2025 07:00
OIC	receipt_advice	po_rma_to	ABC	ABC01	0	11-04-2025 07:00
OIC	receipt_advice	supplier_asn	ABC	ABC01	1	11-04-2025 07:00

source_system	integration_type	sub_type	company	facility	error count	run_ts
OIC	receipt_advice	rma	ABC	ABC01	0	11-04-2025 07:00

Note: In case the schedule jobs run with a schedule type as crontab (say every day at 10:00:00 hrs), then the schedule job should fetch all the errors created between the previous and the next run (from previous day 10:00:00 hrs to the next day 9:59:59 hrs).

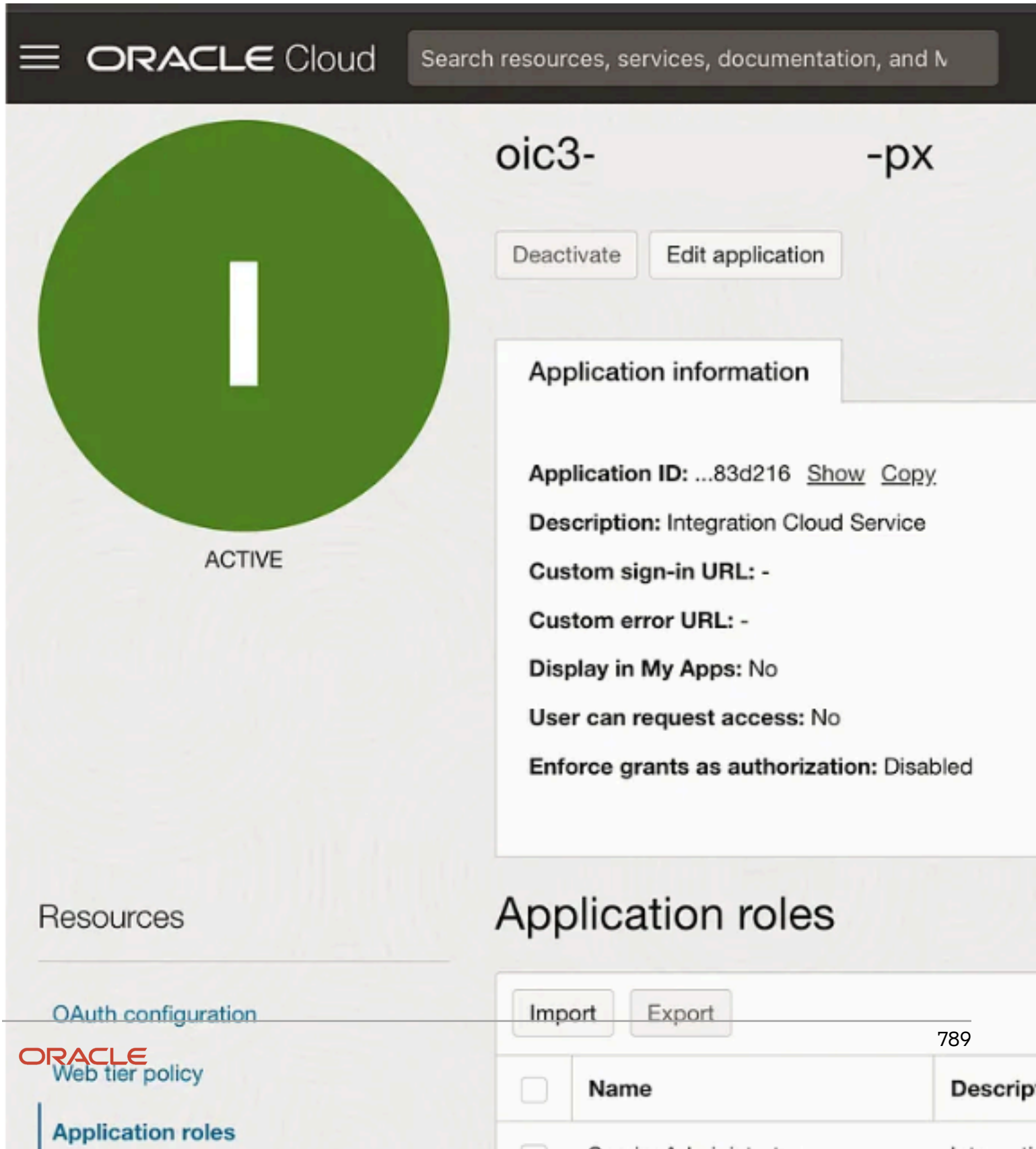
Note: If there is a previous run, the schedule job will check for the errors since for that time (irrelevant to how far in the past the previous run was). Even if the scheduler is down, the system will check for the previous run TS and fetch the error counts for that duration (previous run ts to the current run ts). This count will be plotted in the previous hour window. In the normal scenario, the job works based on the interval/crontab as planned. If the interval is every 4 hours, the data points will be every four hours. The plot shown on the UI is displayed for every 4 hours and is plotted in the previous hour. If there is an outage, there will be a spike for the hour prior to the time it restarted. For example: If the schedule starts at 6:00 AM and runs every 4 hours of interval, then the errors should be fetched as follows:

- Case 1: For the first time at 6:00 AM, the error counts is be fetched from 5:00 AM to 6:00 AM and is plotted at 6:00 AM point on the X-axis.
- Case 2: Considering the run interval is 4 hours, then the next run will be at 10:00 AM the same day. The error counts are fetched from 6:00 AM to 10:00 AM and is plotted at 10:00 AM point on the X-axis.
- Case 3: After plotting the graph at 10AM for last run and if the schedule job is down for various factors, then the graph is plotted at 02:00 PM of the next day. The error counts are fetched from 10:00 AM to 02:00 PM and is plotted at 2:00 PM the next day point on the X-axis.

Note: The flow of fetching and storing the error counts are same across all the integration types (Receipt Advice, Receipt Confirmation, Inventory Transaction, Shipment Advice, Shipment Confirmation, and ERP Inventory Summary. The intermediate table captures errors for the sub-type per integration type.

Configurations for Reconciliation Workbench Dashboard

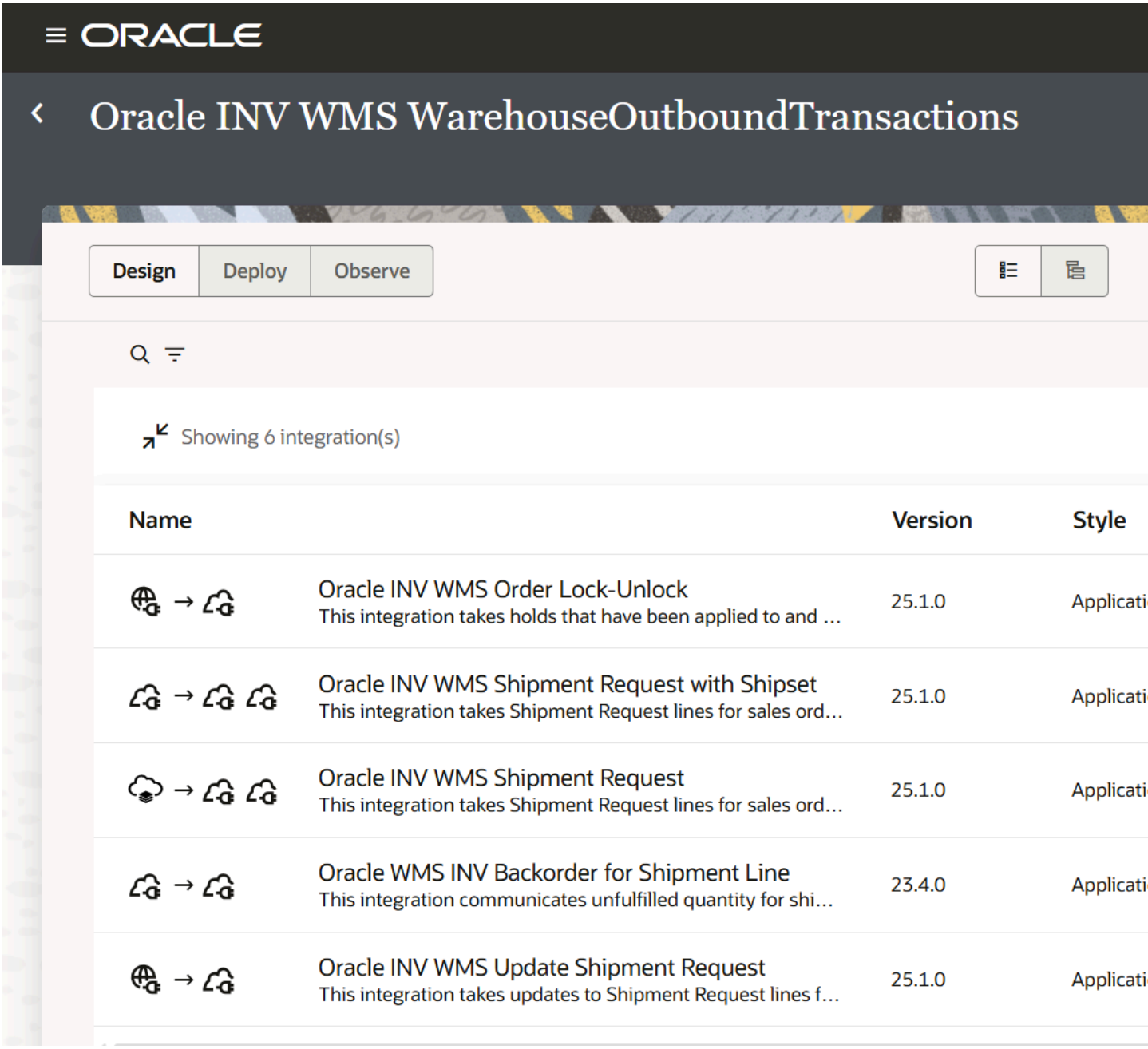
In the OIC instance, the Application role needs to be set to "ServiceAdministrator" via OIC instance's Admin person. This is a onetime per permission set per OIC environment.



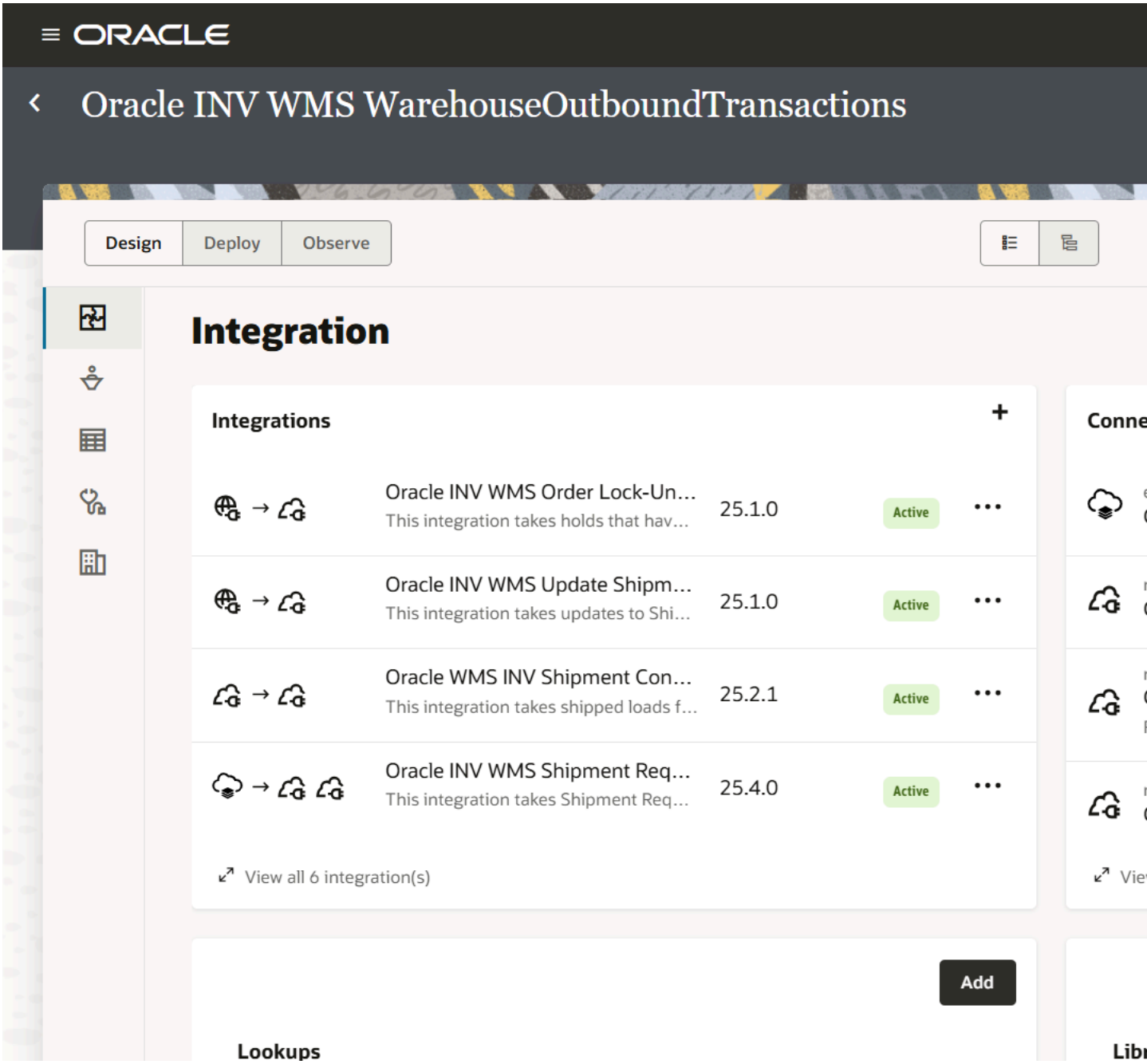
In order for the SCM Reconciliation Workbench to fetch OIC errors, all projects must be shared with the User/User group (i.e.,/ Can Monitor should be set to Everyone) in the Projects menu.

To enable user permission in OIC, do the following:

1. From the OIC main menu, go to the Projects UI.
2. Click the Project.
3. Click the Share button in the right top corner, highlighted below:



4. In "Can Monitor" filed, select “Everyone” as shown below:



Note: This permission is either Reset or Revoked if project is changed/reloaded. In such case, repeat the steps to re-add the permission. The **intermediate table - recon_error_count** will fetch OIC errors for standard prebuilt integrations (Project Identifier + Integration Identifier) ONLY. You can perform your customization but the customized integration MUST follow the same standard name and integration recipe. When working on the Reconciliation Workbench, the end points need to be with corresponding integration names. Existing endpoint records will not be updated with an integration name, automatically. Users are required to manually update these if they wish to get the errors per output interfaces on the Reconciliation Workbench.

OIC Configuration for Inventory Discrepancy

To fetch ERP Summaries, you need to enable **Oracle INV WMS Fetch Item Quantity Summary** (v25.03.00) that invokes a GET API call (inventoryOutboundItemQuantitiesSummaries) to ERP API, initiating an outbound inventory summary. The information captured is mapped to WMS API (**STAGE_ERP_INV_SUMMARY**) and is then interfaced to WMS.

Refer to the Integration Configuration section for more information.

WMS Configurations for Inventory Discrepancy UI

For the system to fetch the Inventory Discrepancy between WMS and ERP and display in Inventory Discrepancy UI, you need to set following configuration:

Configure Generate Balance Snapshot Schedule Job with Parameters

1. Go to the Schedule Job UI, select the Generate Balance Snapshot Schedule from the Job Type drop-down list.
2. Select the Schedule type and configure the required fields.
3. In the Job Parameter field, enable or enter Yes in the Generate ERP Inventory Summary flag.
4. Click Save.
5. Select the Job Type and click Enable/Disable button to run the scheduler.

> **Note:** Currently, the inventory discrepancy UI displays records based on SKU, ERP bucket, On-hand Qty, Batch level Combinations. Serial discrepancy will be captured in future releases.

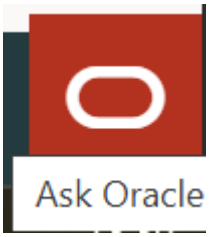
Redwood Reconciliation Dashboard Interface

The Reconciliation Workbench UI in the Redwood platform features individual sections for each integration type.

Navigating to Redwood Reconciliation Workbench UI

After completing the above preliminary configuration, you can access the Redwood Reconciliation Dashboard by following the below steps:

1. Launch the WMS Application
2. Go to the Global Settings drop-down list and click Try the new Redwood Experience.
3. The Welcome to Warehouse Management Cloud page opens.
4. Click the Home with Ask Oracle button icon at the bottom right of the page.



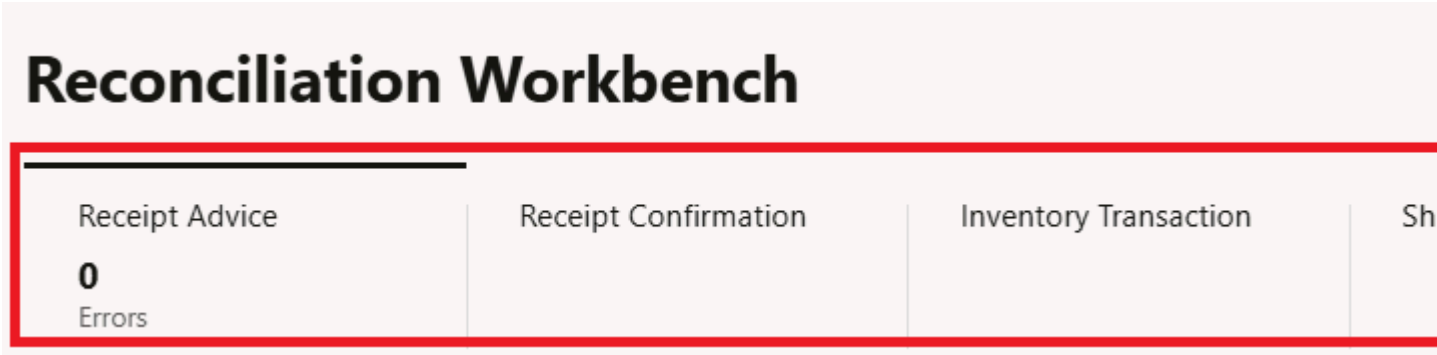
5. Search your desired options (Recon Workbench/ Inventory Discrepancies/ ERP Inventory Summary/ WMS inventory Summary) and launch the UI.

> **Note:** We recommend you use a high-resolution screen or higher zoom level to have better visibility of graphs.

Redwood Reconciliation Workbench Dashboard

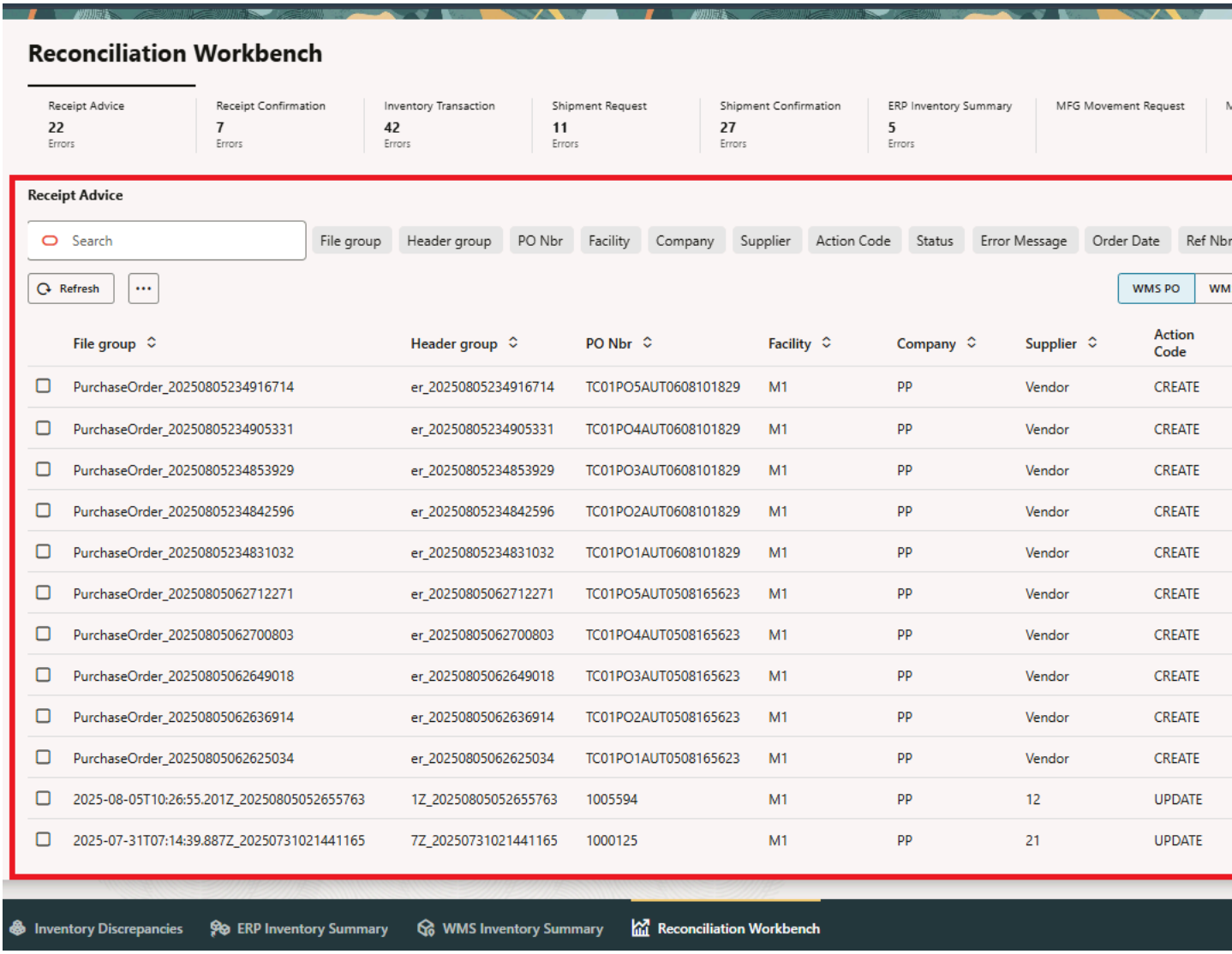
The Redwood Reconciliation Workbench UI in the Redwood platform is divided into the following four segments:

1. **Integration Type Tile**: These integration tiles display associated error counts per integration recipes for specific facility and company.



   - Receipt Advice
   - Receipt Confirmation
   - Inventory Transactions
   - Shipment Request
   - Shipment Confirmation
   - ERP Inventory Summary
   - MFG Movement Request
   - MFG Pick Confirm/Cancel

2. **Data Grid for Listing Errors for Integration Type** – This section displays an error detail corresponding to integration type making each tile unique and consists following fields:



Integration Type Error

Fields	Description
Search field	Filter desirable column to appear on the data grid.
Refresh button	Updates the data periodically.
More Actions (...)	Click to access following actions: o Delete o Purchase Order Detail o Reprocess selected records

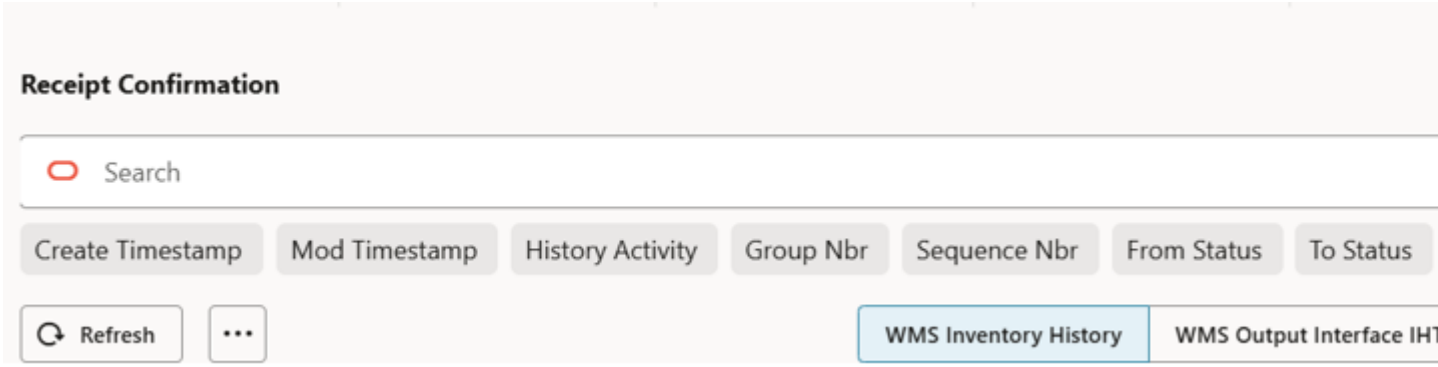
<table>
<tr><th>Fields</th><th>Description</th></tr>
<tr><td></td><td>o Reprocess all failed records
o Clear Stage Records</td></tr>
<tr><td>Toggles</td><td>Click to access error details for WMS and OIC Integration Sub-types for specific facility and company.

Toggles
<table>
<tr><th>Integration Type</th><th>Toggles</th><th>Details</th></tr>
<tr><td>Receipt Advice</td><td>WMS PO</td><td>Fetches stage table error count for PO</td></tr>
<tr><td></td><td>WMS ASN</td><td>Fetches stage table error count for ASN</td></tr>
<tr><td></td><td>OIC</td><td>Fetches OIC error count for receipt advice</td></tr>
<tr><td>Receipt Confirmation</td><td>WMS Inventory History</td><td>Fetches WMS inventory history error count for receipt confirmation</td></tr>
<tr><td></td><td>WMS Output Interface IHT</td><td>Fetches WMS output interface error count for receipt confirmation.</td></tr>
<tr><td></td><td>OIC</td><td>Fetches OIC error count for receipt Confirmation.</td></tr>
<tr><td>Inventory Transaction</td><td>WMS Inventory History</td><td>Fetches WMS inventory history error count for Inventory transactions.</td></tr>
<tr><td></td><td>WMS Output Interface IHT</td><td>Fetches WMS output interface error count for Inventory transactions</td></tr>
<tr><td></td><td>OIC</td><td>Fetches OIC error count for Inventory transaction</td></tr>
<tr><td>Shipment Request</td><td>WMS Sales Order</td><td>Fetches WMS stage table error count for Order</td></tr>
<tr><td></td><td>OIC</td><td>Fetches OIC error count for ship request</td></tr>
</table></td></tr>
</table>

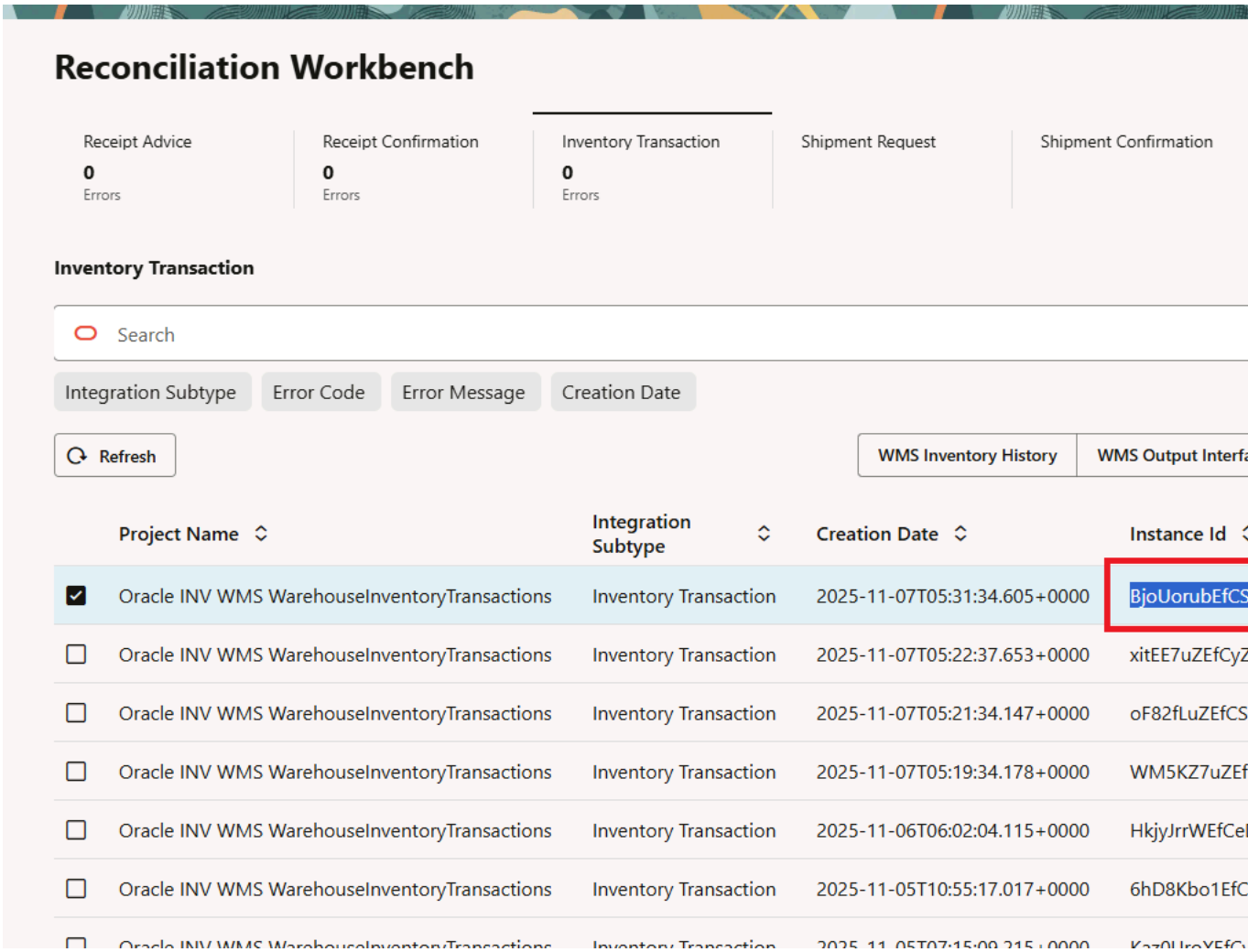
Fields	Description		
	Integration Type	**Toggles**	**Details**
	Shipment Confirmation	WMs Output Interface Load	Fetches WMS output interface for Ship confirmation
		WMs Output Interface Manifest	Fetches WMS output interface for Ship confirmation
		OIC	Fetches OIC error count for ship confirmation
	ERP Inventory Summary	Stage ERP Inventory Summary	Fetches WMS stage ERP-INV-SUMMARY input interface for the ERP Inventory Summary integration type
		OIC	Fetches OIC error count for ERP Inventory Summary integration type
Export button	Download the data in .csv format.		
Columns	Add or hide the columns to the data grid.		

3. **Error Count in trend lines and bar graphs**:
   - Errors in the last 7 Days: Gives an overview of the trend for trailing seven days and displays total errors that occurred for a particular sub-type.
   - Errors in the last 24 hours: This is an actionable bar graph. Displays error count captured during the last 24hours or between 2 schedule job runs.
4. **Quick Action Links**: This section provides deep links to OIC page and ERP-Inventory Transaction. Each specific quick action link is associated per Integration tile. Following table

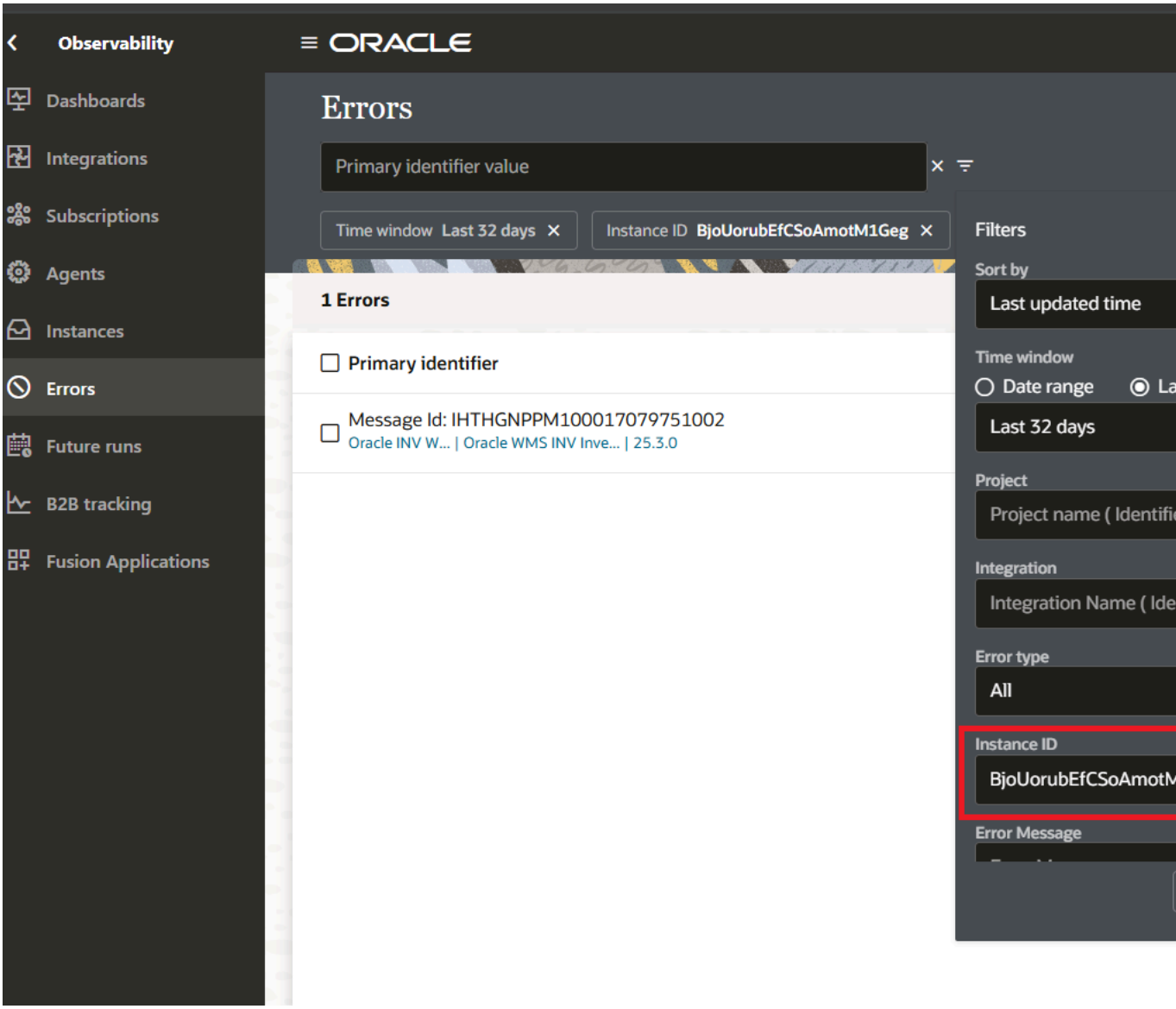
displays the respective OIC/ERP Inventory Transaction link specific to Integration Tile.



- Click the **OIC Errors** link to look for relevant instance ID for the failed WMS record.



- The OIC error page opens. You can filter and search via Instance ID and take necessary actions.



> **Note:** Choose the Date Range per the searched Instance ID. For example, If the failed instance ID is 2 days ago, we recommend you to choose 3 days in the time window.

- Similarly for ERP, you can navigate to ERP portal and take necessary action.

Quick Actions

Integration Tile	OIC Quick Action	ERP Quick Action
Receipt Advice	OIC Error	X
Receipt Confirmation	OIC Error	ERP - Receive Receipt ERP - Putaway Receipt

Integration Tile	OIC Quick Action	ERP Quick Action
Inventory Transaction	OIC Error	ERP - Inventory Transaction
Shipment Request	OIC Error	X
Shipment Confirmation	OIC Error	ERP - Ship Confirmation
ERP Inventory Summary	OIC Error	X

Inventory Discrepancy in Reconciliation Workbench

You can now consolidate Inventory Discrepancies into one single record per SKU by ignoring Batch/Expiry/Attributes (A to O), reducing duplicate lines, and speeding up reconciliation. The discrepancy computation rules to control how WMS compares inventory balances from WMS and ERP. This helps you reduce duplicate discrepancy lines when an item is tracked with batch, expiry, or inventory attributes in WMS, but not tracked the same way in ERP.

When you define a discrepancy rule, WMS can ignore selected inventory attributes during comparison, add the quantities together for the SKU, and show a consolidated discrepancy result in the Inventory Discrepancies Redwood screen. You can now:

- Create an **Item Summary Rule** with the new rule type, **Discrepancy computation**.
- Choose which inventory attributes WMS should ignore while comparing WMS and ERP balances. Ignore items that exist in ERP but do not exist in WMS.
- Use the **item_summary_discrepancy_rule** parameter in the Generate Inventory Balance Snapshot scheduled job.
- Add the Discrepancy Rule column in the Inventory Discrepancies Redwood screen to see which rule was used.
- Generate an Inventory Summary Run Number output file in JSON format so non-Fusion ERP systems can send inventory balances using the correct run number.
- Configure ERP Cloud SaaS app authentication using either basic authentication or OAuth client credentials.

Before you begin, ensure sure you understand how the rule applies:

- A discrepancy computation rule applies to all items in the scheduled job run.
- You cannot apply the rule to only selected SKUs because selection criteria are disabled for this rule type.
- WMS uses the discrepancy rule only when the scheduled job generates inventory discrepancies.
- If you leave **item_summary_discrepancy_rule** blank, WMS retains the existing discrepancy behaviour.
- If you enter a valid discrepancy rule, WMS uses that rule while comparing WMS and ERP inventory balances.

To Create a Discrepancy Computation Rule, do the following:

1. Open the Item Summary Rule UI and create a new rule.
2. In the Type field, select Discrepancy computation.
3. Review the Summary Type field. WMS disables it for this rule type.
4. In **Ignored Inventory Attribute List**, select the attributes you want WMS to ignore during discrepancy comparison, such as batch, expiry, or inventory attributes A to O.
5. Select Ignore non-existent items if you want WMS to skip items that exist in ERP but do not exist in WMS.

6. Save the rule.

After you save the rule, run the **Generate Inventory Balance Snapshot** scheduled job.

Generate Inventory Discrepancies with the Rule

1. Open the Generate Inventory Balance Snapshot scheduled job.
2. Enable inventory discrepancy generation for the run.
3. In item_summary_discrepancy_rule, enter the valid discrepancy computation rule name.
4. Run or schedule the job.

WMS generates the WMS inventory summary and ERP inventory summary as usual. When it compares the two balances, it applies the discrepancy rule.

For example, if WMS has 5 units in BATCH01 and 5 units in BATCH02, but ERP has 10 units without batch tracking, WMS can ignore batch during comparison. If the total quantity matches, WMS does not show a discrepancy for that SKU.

View the Rule Used for a Discrepancy

1. Open the Inventory Discrepancies Redwood screen.
2. Add the Discrepancy Rule column to the grid.
3. Review the rule shown for the run number.

The column is hidden by default, but you can add it when you need to trace how WMS calculated the discrepancy.

Share the Run Number with a Non-Fusion ERP

1. Open Output Interface Configuration.
2. Select the Inventory Summary Run Number interface type.
3. Configure the endpoint for the output.
4. Save the configuration.

When the Generate Inventory Balance Snapshot job runs, WMS generates a JSON output file that includes details such as facility, company, run number, WMS summary rule, and discrepancy rule. A non-Fusion ERP can use the run number when sending its inventory summary back to WMS.

Configure ERP Cloud Authentication

For ERP Cloud SaaS app configuration, WMS supports basic authentication and OAuth client credentials.

Use basic authentication when only the basic authentication parameters are populated.

Use OAuth when these values are populated:

- App Parm3: Client ID
- App Parm4: Token URL
- App Parm5: Scope
- App Parm8: Client Secret

WMS uses OAuth when all required OAuth values are available for the ERP Cloud SaaS app.

7 Extra Configuration

OCI-Object Store for Uploaded Attachment Management

With OCI-Object Store, you can store attachments (such as those uploaded during LPN Inquiry transaction) directly in your Oracle Cloud Infrastructure (OCI) object store bucket. This approach gives your organization complete control over storage, retention, and security. After you complete the OCI-Object Store configuration, your uploaded attachments will be stored in your designated cloud object store bucket.

> **Note:** As a pre-requisite,youmust obtain valid Oracle Cloud Infrastructure user credentials with permissions to access the required bucket.

To configure your environment to use OCI-Object Store, do the following:

1. Go to the **SaaS App Configuration (SaasAppConfigView)** UI.
2. Click the Create (+) icon.
3. From the **App Name** drop-down list, select **OCI-OBJECTSTORE**.
4. Enter the following mandatory fields:

   In the UI, the parameter fields are labelled as “App parm3”, “App parm4,” and so on. These field names do not indicate their purpose within the **SaaS App Configuration** screen. Please refer to the following table for each parameter’s meaning and the format required. You may need to obtain some of this information from your Oracle Cloud administrator.

Field Name	Description	Sample Format
Base URL	OCI-Object Store bucket URL	https://<namespace>.objectstorage.<region>.oraclecloud.com/n/<namespace>/b/<bucket- **NOTE:** The region and bucket name must match with **App parm6** and **App parm7**
App parm3	User OCID (must start with ocid1.user)	ocid1.user.oc1..aaaa...
App parm4	API Key Fingerprint	12:34:56:78:90:cd:ef
App parm5	Tenancy OCID (must start with ocid1.tenancy)	ocid1.tenancy.oc1..aaaa...
App parm6	Region (ends with a digit, separated by hyphens)	us-phoenix-1
App parm7	Bucket Name	test_bucket-01
App parm8	Private Key	A valid RSA private key.

		NOTE: App parm8 is encrypted in the database and not displayed in the grid view (but it is ed

Note:

- SaaS App configurations can be created for Facility * or Company * (one object store bucket per an environment).
- You cannot delete an OCI-Object Store configuration once created.
- You must continue using your designated OCI-Object Store moving forward. Uploading attachments is not allowed if OCI-Object Store is not configured. The system displays an error message “Need to configure Object Store in SaaS App Config screen.” when you upload attachments.

Note: Once you configure OCI-Object Store, this configuration is permanent. You cannot revert to the original object store.

5. Click **Save**.

Note: If validation fails, the system displays an error message.

If you are a new user (never used attachments), you must configure OCI-Object Store before uploading attachments. If you are an existing user, you can configure OCI-Object Store and migrate your existing uploaded attachments.

Migration of Existing Attachments

A one-time migration feature allows you to move attachments from the Oracle WMS object store to your newly configured OCI-Object Store bucket.

To migrate your existing uploaded attachments,

1. On the **SaaS App Configuration** UI, click the **Migrate Attachments** action button (enabled only if you have previously used Oracle WMS storage and have not migrated yet).
2. Confirm the migration.

The migration process runs in the background and you will receive status notifications.

Status	Message
In progress	Migration in progress! Please check AsyncTaskView for status.
No attachments to migrate	No attachments to migrate.
No config found	SaaS App Config not found! Cannot migrate attachments.

Note:

- Migration can only be performed once.
- After migration, attachments will be uploaded to your configured OCI Object Store.
- Attempting to migrate again after migration is not allowed.

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.)". But, you can enable "Enable Strict Sequence" flag, to make the sequence counter to be sequential.

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.
- **Enable Strict Sequence:** Flag that allows the counter to be strictly sequential.

  By default, this flag is disabled. On enabling the flag, the system reserves the counter and generates the records in a sequential order.

  For example: OBLPN 10200, OBLPN 10201, OBLPN 10202, OBLPN 10203 … and so on.

  > **Note:** As system reserves the counter for generating sequential records, you may feel a performance impact when this flag is enabled. We recommend you to use this flag only for specific counters when required. However, you can continue to design your warehouse operations that is not dependent on sequential numbers.On enabling the flag, the system alerts you with a warning message “Enabling strict sequence may cause slow performance under heavy volumes”.

Barcode Preprocessing Rules

In warehouse operations, a wide range of SKUs and suppliers results in barcodes of various formats, structures, and qualifiers. Not all scanned barcodes arrive in a format that matches your WMS requirements. Configuring barcode preprocessing rules ensures that barcodes are standardized, validated, and correctly interpreted before they enter your workflows.

With barcode preprocessing rules, you can:

- Flexibly adapt to evolving supplier or regulatory barcode standards without requiring code customizations.
- Automate the transformation, standardization, and cleaning of scanned barcode data to fit your organization’s processing rules.
- Extract or restructure key information segments from the scanned barcode.
- Reject invalid barcodes before they disrupt operations, reducing manual intervention and errors.
- Enforce barcode acceptance and formatting in real-time, directly within the WMS.

The **Barcode Preprocessing (BarcodePreProcView)** UI allows you to configure barcode preprocessing rules directly within WMS. You can specify the conditions under which barcodes are preprocessed and configure the logic for updating them. Once these rules are configured, the system automatically triggers barcode preprocessing when a scanned barcode matches the defined criteria and updates the barcode accordingly.

Note:

- You can configure these barcode preprocessing rules only in the Redwood format.
- Currently, the configured barcode preprocessing rules are specific to the logged-in user group.
- The system triggers barcode preprocessing rules triggers first, and then the resultant barcode is passed for further processing and validation.

Configuring Barcode Preprocessing Rules

On the **Barcode Preprocessing** UI, you can set criteria for when to preprocess the scanned barcodes.

To configure barcode preprocessing rules, do the following:

1. Click **Create** on the **Barcode Preprocessing** UI.
2. On the **Create** form, enter or select the following fields or toggles as required:
    - **Sequence Nbr:** Determines the order in which barcode preprocessing rules are evaluated.
    - **Prefix Text:** Prefix to detect from the scanned barcode.
    - **Match Function:** Select how the barcode should be matched. The system validates the barcode with the selected match functions and the values provided. You can select one of the following match functions:
        - **Min Length:** Matches if the scanned barcode meets the minimum length. On selecting this function, enter the minimum length value to match with the scanned barcode length.
        - **Exact Length:** Matches if the scanned barcode is of exact specified length. On selecting this function, enter the exact length value to match with the scanned barcode length.
        - **Begins With:** Matches if the scanned barcode starts with the configured text. On selecting this function, enter the string to match with the scanned barcode's beginning string.
        - **Contains:** Matches if the scanned barcode contains a specific string. On selecting this function, enter the string or text to match with the scanned barcode if it contains the configured text.
        - **Regex Match:** Matches if the scanned barcode fits the regular expression provided. On selecting this function, enter a regular expression in the regex field.

      Note: All text entries are case-sensitive.

    - **Reject Barcode** toggle: If enabled, the system rejects the scanned barcode matching this rule. Also, it displays an error message below the barcode entry field during mobile transactions. You can enable this toggle to reject invalid barcodes.

   Note: Either **Sequence Nbr** or **Match Function** is mandatory for each barcode preprocessing rule. You can also configure both fields.

3. Click **Save**.

You can create multiple rules with different sequence numbers.

The system matches the scanned barcodes against barcode preprocessing rules in sequence. Once the barcode matches a rule, any associated update logic is executed and the system does not check further rules.

Barcode Preprocessing Update rules for a matching sequence define how the barcode is to be updated or handled next.

Configuring Barcode Preprocessing Updates

On the **Barcode Preprocessing Updates** screen, you can configure logic to update the scanned barcodes.

To define how a matched barcode should be updated, do the following:

1. In the **Barcode Preprocessing** UI, select a barcode preprocessing rule.
2. Click **...** (More Actions) > **Barcode Preprocessing Updates** action button.
3. Click **Create**.
4. On the **Create** form, enter or select the following fields:
    - **Sequence Nbr:** Determines update execution order.
    - **Update Function:** Logic to transform the scanned barcode. You can select one of the following update functions:

Update Function	Behavior	Example
Substring: Retains a substring, defined by start and end indexes. On selecting this function, enter startindex and endindex values.	The system keeps only the portion of the scanned barcode from the specified startindex and endindex. It includes the character at the start index and excludes the character at the end index. **Note:** Index value starts with 0. If the provided end index is greater than the last index of the scanned barcode, the system uses characters up to the position of the last character.	**Scanned Barcode**: ARTSKU1234567 **Startindex:** 3 **Endindex:** 9 **Result:** SKU123 (from 3rd to 8th character)
Strip String: Removes a specified string from the barcode. On selecting this function, enter string value to remove from the scanned barcode.	The system removes all instances of a specified string from the scanned barcode.	**Scanned Barcode**: ARTSSKUARTS123 **Strip String**: ARTS **Result:** SKU123
Strip Regex: Removes parts of the barcode using a regex expression. On selecting this function, enter a regular expression logic in the regex field to remove portions of the scanned barcode.	The system removes portions matching the provided regex from the scanned barcode. **Note:** You can follow the standard regular expression patterns.	**Scanned Barcode**: ARTSKU123456 **Strip Regex**: ^(.{3}) **Result:** SKU123456 (first three characters are removed)
Insert At: Inserts a string at the specified position. On selecting this function, enter Position and String to insert values.	The system inserts a given string at a specified position on the scanned barcode. **Note:** The position value starts with 0. If the provided position is more than the last index of the scanned barcode, the system considers last character's position as the position to insert string.	**Scanned Barcode**: ART12345 **Position**: 3 **String to insert**: SKU **Result:** ARTSKU12345 (inserts string at 3rd position).

Regex Replace: Uses regex groups for complex replacements or formatting. On selecting this function, enter a regular expression logic in the regex field.	Based on the regular expression provided in the regex field, the system find/replace and enables advanced or multi-field parsing.	You can use this function to create multi field barcode from the scanned barcode. **Scanned Barcode**: SSBPLPN2201 **regex**: ^SSBP(.{7}) **String to replace**: SSMFB[A]$1! **Result:** SSMFB[A]LPN2201!

5. Click **Save**.

You can create multiple updates with different sequence numbers.

The system updates the scanned barcode based on the rules configured in the **Barcode Preprocessing Updates** screen. The system updates the scanned barcode in the order of sequence number.

Examples

Example 1: Barcode Preprocessing Update

You want to extract just the middle portion of a scanned barcode.

Original Barcode: ARTSSKU1234567

Barcode Preprocessing Rules:

Group	Sequence Nbr	Prefix Text	Reject Barcode	Match Function	Parameters
Group1	1	ART	false	min_length	{“length”:6}

When the barcode ARTSSKU1234567 is scanned, the system matches based on the prefix and match function.

Barcode Preprocessing Update (for Sequence 1):

Barcode Preprocessing Match Rule	Sequence Nbr	Update Function	Configuration
Company/Facility/1	1	substring	startindex = 4 endindex = 10

The update rule extracts characters starting at position 4 and ending at position 9, so the barcode is updated to SKU123.

Example 2: Reject Barcode

You want to prevent certain invalid barcodes from being processed in WMS by rejecting any barcode starting with “SSITEM”.

Barcode Preprocessing Rules:

Group	Sequence Nbr	Prefix Text	Reject Barcode

Group2	1	SSITEM	true

If a barcode such as SSITEM012XYZ is scanned, the system matches the prefix and rejects the barcode.

Example 3: Barcode Preprocessing Rule Evaluation and Update

When a barcode (e.g., **SKUSLPN12345**) is scanned during a mobile transaction, the system evaluates it against each rule in sequence number order until a match is found.

Barcode Preprocessing Rules:

Group	Sequence Nbr	Prefix Text	Reject Barcode	Match Function	Parameters
Group3	1	SKU	false	min_length	{“length”:14}
Group3	2	SKU	false	exact_length	{“length”:20}
Group3	3	SKU	false	begins_with	{“string”:“SKUNR”}
Group3	4	SKU	false	contains	{“contains”:“SKU-SKU”}
Group3	5	SKU	false	regex_match	{“regex”:“S.S”}

For the barcode SKUSNLPN12345, the system evaluates the barcode preprocessing rules in order from sequence 1 to 5:

1. Sequences 1 to 4 do not match with this barcode according to their configuration.
2. Sequence 5 matches this barcode, because the regular expression rule applies (regex_match: {"regex":"S.S"}).

As soon as the sequence 5 matches, the system triggers the associated barcode preprocessing update rules.

Barcode Preprocessing Update (for Sequence 5):

Barcode Preprocessing Match Rule	Sequence Nbr	Update Function	Configuration
Company/Facility/5	1	strip_string	string = SN
Company/Facility/5	2	substring	startindex = 0 endindex = 8

For the barcode SKUSNLPN12345, the system updates the barcode in order from sequence 1 to 2:

1. Sequence 1: Removes all occurrences of “SN”. (SKULPN12345)
2. Sequence 2: Extract the first 8 characters from the result. (SKULPN12)

Original barcode: SKUSNPLN12345

After updates: SKULPN12

Example 4: Conditional Extraction Based on Supplier Prefix

You receive barcodes from multiple suppliers, each with a unique prefix and different part number formats:

- Supplier1: Barcodes start with the prefix “S1-”, with the part number immediately following (e.g., S1-123456).
- Supplier2: Barcodes start with the prefix “S2”, with the part number immediately following (e.g., S2123456).

You can make the system to automatically recognize the supplier based on the prefix and extract the part numbers.

Barcode Preprocessing Rules:

Group	Sequence Nbr	Prefix Text	Reject Barcode	Match Function	Parameters
Group4	1	S1-	false	min_length	{“length”:6}
Group4	2	S2	false	min_length	{“length”:6}

Barcode Preprocessing Update (for Sequence 1):

Barcode Preprocessing Match Rule	Sequence Nbr	Update Function	Configuration
Company/Facility/1	1	strip_string	String = S1-

Barcode Preprocessing Update (for Sequence 2):

Barcode Preprocessing Match Rule	Sequence Nbr	Update Function	Configuration
Company/Facility/2	1	strip_string	String = S2

For Supplier1 barcode “S1-123456”:

- The rule matches the “S1-” prefix.
- The barcode preprocessing update removes the string “S1-”. So, the updated barcode is “123456”.

For Supplier2 barcode “S2123456”:

- The rule matches the “S2” prefix.
- The barcode preprocessing update removes the string “S2”. So, the updated barcode is “123456”.

Redwood Mobile Barcode Scanning Resiliency

You can scan supported barcodes in quick run without waiting for each scan to finish processing. You can also configure barcode preprocessing rules that work across groups and use more flexible matching and update options. These changes help you keep moving during high-volume warehouse tasks, such as receiving LPNs or scanning serial numbers, while giving them clearer recovery information when a scan fails.

Redwood Mobile supports barcode scan buffering for supported single-entry screens. When you scan multiple barcodes one after another, the system queues the scans and processes them in the order received. If a scan fails, Redwood Mobile shows the failed barcode and the number of scans that remain unprocessed. This helps you identify where to restart instead of guessing.

Barcode preprocessing also has configuration options where you can create rules that apply to all groups by leaving the Group field blank. You can also use matching and update functions to clean or extract barcode values before WMS validates them.

Before you begin, keep these points in mind:

- Barcode scan buffering applies to supported Redwood Mobile screens that use a single barcode entry field.

- This functionality applies to barcode scans and not for camera barcode scans.
- Barcode preprocessing rules with a blank Group apply across groups for the logged-in facility and company.
- If both group-specific and blank-group rules exist, WMS checks the logged-in user's group-specific rules first.
- WMS uses blank-group rules only when no group-specific rule exists, or no group-specific rule matches the scanned barcode.

Scan Multiple Barcodes in Redwood Mobile

1. Open the Redwood Mobile screen with a single barcode entry field.
2. Scan the first barcode.

   Continue scanning the next barcodes without waiting for each scan to finish processing. Let Redwood Mobile process the queued scans in order.
3. If a scan fails, review the error message. Use the failed barcode and remaining unprocessed scan count to decide where to resume.

Configure Barcode Preprocessing Rules for All Groups

1. Open the Barcode Preprocessing UI.
2. Create a new rule or edit an existing rule.
3. In the Group field, either:
   - Select a specific group when the rule should apply only to that group.
   - Leave the field blank when the rule should apply to all groups.
4. Define the matching condition for the scanned barcode.
5. Define the update action that WMS should apply before validation.
6. Save the rule.

When users scan a barcode, WMS first checks rules for the user's logged-in group. If no matching group-specific rule applies, WMS checks the rules with a blank Group.

Use the Matching Options

You can use these options when you want WMS to decide whether a preprocessing rule should apply.

- **Ends With**: Matches when the barcode ends with the value you enter. This match is case-sensitive.
- **Contains with position**: Matches when the barcode contains the value you enter. You can also provide a starting position, so WMS begins the search from that point in the barcode.

Use the Update Options

Use these options to change the scanned barcode value before WMS validates it.

- Trim: Removes white space or a specified character from the beginning and end of the barcode.
- Slice: Extracts part of the barcode by using a start position and optional end position. You can use negative positions to count from the end of the barcode.

Examples:

- Slice(-12) extracts the last 12 characters.
- Slice(4) extracts from position 4 to the end of the barcode.

After setup, you can scan faster in supported Redwood Mobile workflows. WMS queues scans, processes them in order, and provides clearer error recovery details when a scan fails.

For preprocessing, administrators can maintain fewer duplicate rules by leaving Group blank when the same barcode rule should apply to all groups. WMS still gives priority to group-specific rules when they match.

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 to the barcode type validation in the system, the length must be set to "-1". This will override any other configuration existing for that barcode type.
- **Prefix:** Denotes the prefix used for the barcode type.
- **Remove Prefix:** If this flag is checked, the barcode type ignores the "Prefix" field.
- **Numeric_flg:** Forces the barcode type to only accept numeric values.

Custom_barcode: Calls custom scanning logic for scanning inbound LPNs into the system.

Configuring Barcode Types

Barcode Types are used for situations where the company requires a fixed barcode prefix/length for a given label.

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.

Change Default Printer From Warehouse Management UI

Using this feature, you can easily change your default label printer and default document printer.

Note: You need to have Admin/Supervisor/Employee role privileges to change the default Label/ Document Printer using the Change Printer option available in the Global Settings menu. To change the default printer setting, do the following:

1. Click on the Global Settings menu and select the “Change Printer” option from the dropdown.
2. A new window will pop up.

   Here, you can input the default label printer or/and default document printer by entering a valid printer name.
3. Click on “Save” to update your new default label/document printer.

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.
- Oracle Warehouse Management Cloud is certified to work with PCL6-compatible document printers.

  Printers that do not support the PCL6 printer language (for example, printers using only PCLmS, or other proprietary printer languages) may function in certain environments. However, Oracle does not certify, guarantee, or provide support for compatibility or functionality with such devices. To ensure reliable document printing and receive full Oracle Support, customers should use enterprise-class printers that support the PCL6 printer language.

Recommendation

- Oracle recommends verifying that the selected document printer supports PCL6 before configuring it with Oracle Warehouse Management Cloud. Using a PCL6-compatible printer ensures reliable printing behavior and allows Oracle Support to fully assist with printer-related issues.

  > **Note:** Printers that do not support PCL6 may operate in some environments, but Oracle cannot guarantee consistent behavior or compatibility.

Company Report Type

From the **Company Report Type** UI, you can configure all available Report Types to the corresponding specific template. These templates can be further filtered by the available fields such as Destination Company, Order Type, Ship Via, etc. Oracle WMS currently has seventeen different reports that can be generated in multiple UI screens and you can call templates from Label Designer, Web Reports, and the available internal templates.

To configure a Report:

1. Open the **Company Report Type** UI. By default, all the report types will have a pre-configured document assigned, which can be modified to meet the operational requirements.
2. To add a new Report Type, click the **Create** button located on the right-hand side corner.
3. The button will open a Sub-Menu that will allow you to configure a new Company Report.

Configuring a Company Report Type Using a Pre-established Template

1. Click the add button to see the Report sub-menu. Select one of the available reports types from the Report Types drop-down.
2. Click the **Edit** button to modify the selected Report Type options.
3. The ‘Edit’ menu will open with a report sub-type populated. (The current configuration will allow the report to be called for any company, meaning no additional configuration)

Using Company Report Type to Call Label Designer Templates

Company Report Type can summon any Label Designer template that was created from scratch using that tool. Additional configuration is also available if your current operational flow requires it. Follow the above steps (under Company Report Type) if you need to create or modify a current report.

1. To further configure the report, note that once the ‘doc_code’ field has a value that matches an actual Label Template Code, then the system will not take into account if the Report SubType has a value.

Using Company Report Type to Call Web Reports

Company Report Type can summon any Web Reports template that was created from scratch using Web Reports. Additional configuration is also available if your current operational flow requires it. Follow the above steps (under Company Report Type) if you need to create or modify a current report. Below are the specific steps needed to further configure it.

1. For this specific configuration, once the Report SubType has the 'WebReport' value then the system will allow you to use the last 2 fields ('web report' path and 'Web report format').

Support for Additional Reports

Additional support has been added for the following reports:

- Commercial Invoice (COMM_INV)
- Shipper's Export Declaration (SED)
- Export Shipment Packing List (ESPL)

1. To generate one of these reports, from the **Outbound Loads UI,** click "Commercial Invoice", "Export Shipment Packing List", or "Shipper's Export Declaration."
2. In the **Company Report Type** UI, configure with subreport type "WebReports".

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:
   - Create a web report for category : "AllocationToContainer".
   - User can also add other categories with AllocationToContainer_ID
2. From the **Company Report Type** UI select the following:
   - Report type: OBLPN_PACKING
   - "Report Sub Type" = WebReport
   - "web report path" = folder_name\web_report_name ,OR folder_name/web_report_name
   - "Web report format": select your preference
3. From the **OBLPN Inquiry**
   - When you select single/multiple records and click on 'Packing List' button, the system generates the custom OBLPN packing slip for the selected record(s)

- o PDF format will be displayed in a Dashboard
- o CSV and XLS format will get auto-downloaded

4. **From RF Print Ship Label (Module: rf.outbound.cwrfprintshiplbl)**
   - When the screen parameter “print-packing-slip” is set as “OBLPN”, the system generates the custom OBLPN packing slip for scanned OBLPN in the “Output interface file UI.”
     - When screen parm “print-packing-slip” is set as “Both” system generates the custom OBLPN packing slip for scanned OBLPN in “Output interface file UI”.
     - Along with the OBLPN packing slip, system generates ORDER Packing Slip w.r.t the configuration mentioned below.
5. **From RF Print Packing Slip (Module: rf.outbound.cwrfprintlpnpackingslip)**

- When the screen parameter “packing-slip-type” is set as “OB LPN packing”, the system generates the custom OBLPN packing slip for the scanned OBLPN in “Output interface file UI.”
- When the screen parameter “packing-slip-type” is set as “Both”, the system generates the custom OBLPN packing slip for the scanned OBLPN in the “Output interface file UI”.
- Along with the OBLPN packing slip, the system generates the ORDER Packing Slip with respect to the configuration mentioned below.

Configure and Generate Custom WebReport for ORDER Packing Slip

1. From the **Web Report** UI:
   - Create a web report for category: “Order”.
   - You can also add other categories with Order_HDR ID
2. From the **Company Report Type** UI:
   - Report type: ORDER_PACKING
   - “Report Sub Type” = WebReport
   - "web report path" = folder_name\web_report_name ,OR folder_name/web_report_name
   - "Web report format" : select as preference
3. From the**Order Header View** UI:
   - When you select single/multiple records and click on the 'Packing Slip' button, the system generates the custom ORDER packing slip for the selected record(s)
   - PDF format will be displayed in a Dashboard
   - CSV and XLS format will get auto-downloaded
4. From **RF Print Ship Label** (Module: rf.outbound.cwrfprintshiplbl)
   - When the screen parameter “print-packing-slip” is set as “Order” system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in the “Output interface file UI”
   - When the screen parameter “print-packing-slip” is set as “Both”, the system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in the “Output interface file UI”.
   - Along with the ORDER packing slip, the system generates the OBLPN Packing Slip with respect to the configuration mentioned above

5. From **RF Print Packing Slip** (Module: rf.outbound.cwrfprintlpnpackingslip)
    - When the screen parameter “packing-slip-type” is set as “Order LPN packing”, the system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in “Output interface file UI”.
    - When the screen parameter “packing-slip-type” is set as “Both”, the system generates the custom OBLPN packing slip for the Order associated with the scanned OBLPN in the “Output interface file UI”.
    - Along with the ORDER packing slip, the system generates the OBLPN Packing Slip with respect to the configuration mentioned above.

    > **Note:** The generation of custom OBLPN/Order packing slip might fail:
    >
    > - If the web report category is not valid
    > - If the web report category has a filter, which doesn’t match the RF scanned/UI selected record(s).

Reports Supported

“Company Report Type” UI supports sub report type “WebReports” for the following reports:

- **OBLPN Packing Slip** – Generated by clicking “Packing List” on the OBLPN UI. “OBLPN_PACKING” in “Company Report Type” needs to be configured with the sub report type “WebReports”.
- **Order Packing Slip** - Generated by clicking “Packing Slip” button on the Order Header UI. “ORDER_PACKING” in “Company Report Type” needs to be configured with sub report type “WebReports”
- **Task Report** – Generated by clicking “Task Reports” on the Wave Inquiry UI. “TASK” in “Company Report Type” needs to be configured with the sub report type “WebReports”.
- **Inbound Receipt Report** - Generated by clicking “Inbound Receipt” on the IB Shipment UI. “INBOUND_RECEIPT_REPORT” in “Company Report Type” needs to be configured with the sub report type “WebReports”.
- **Pallet Packing List** - Generated by clicking “Pallet Packing List” on the Pallet View UI. “PALLET_PACKING” in “Company Report Type” needs to be configured with the sub report type “WebReports”.
- **Pick Travel Report** - Generated by clicking “Pick Travel Report” on the Wave Inquiry UI. “PICK_TRAVEL” in “Company Report Type” needs to be configured with sub report type “WebReports”.
- **Receiving Variance Report** - Generated by clicking “Receiving Variance Report” button on the Appointment UI. “RCV” in “Company Report Type” needs to be configured with sub report type “WebReports”
- **BOL** - Generated by clicking “Bill of Lading” button on the OB Load UI. “BOL” in “Company Report Type” needs to be configured with sub report type “WebReports”
- **Commercial Invoice** - Generated by clicking “Commercial Invoice” on the OB Load UI. “COMM INV” in “Company Report Type” needs to be configured with sub report type “WebReports”.
- **Export Shipment Packing List** - Generated by clicking “Export Shipment Packing List” on the OB Load UI. “EXPL” in “Company Report Type” needs to be configured with the sub report type “WebReports”.
- **Shipper’s Export Declaration** - Generated by clicking “Shipper’s Export Declaration” on the OB Load UI. “SED” in “Company Report Type” needs to be configured with sub report type “WebReports”

> **Note:** Custom reports designed through WebReports cannot be invoked from RF. (This note is only applicable for reports that can be printed via RF). Also, Custom Reports should not have parenthesis.

Order Fill Rate Report and Order Details Fill Rate Report

You can export a set of records that has the history of Sales Order and its detail SKU Level track.

Order Fill Rate Report

This report shows the history of the Sales Order in the Warehouse.

The Order Fill Rate Report shows an overview/summary of Allocated, Packed, Shipped, and Cancelled Quantity of a Sales Order. The same can be reflected in percentages.

For example, if an order is placed for 10 units, it goes through different processes within the Warehouse before it has been shipped out. In this report one can monitor different phases of the Order, whether the ordered quantity is Allocated, Packed, and Shipped. If 10 units are shipped successfully, then your fill rate for % Allocated, % Packed, and % Shipped is 100%.

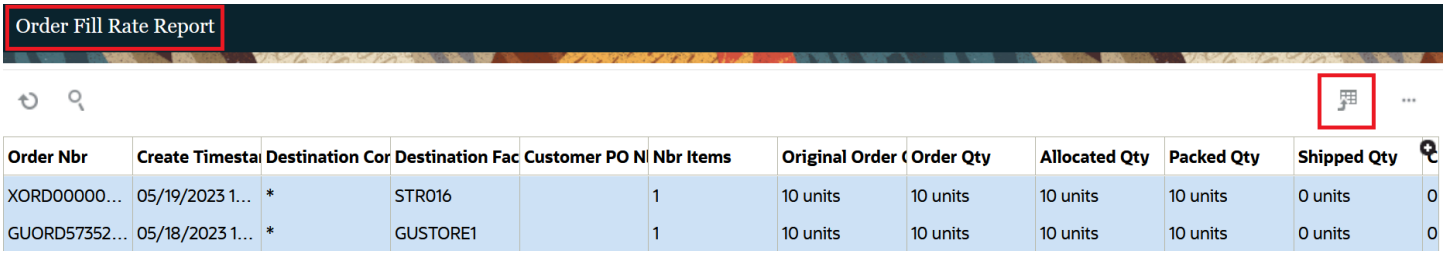
This report gives you an insight on how well you have managed your inventory and how effective you are at fulfilling orders.

To export the **Order Fill Rate Report**, do the following:

1. Go to the **Order Fill Rate Report** UI.
2. Select the records.

> **Note:** By default, all columns are checked and available on the **Order Fill Rate Report** screen. You can un-check the columns as per your requirement, on clicking the **+** button.

3. Click the Export icon and select the report type.



Order Nbr	Create Timestal	Destination Cor	Destination Fac	Customer PO N	Nbr Items	Original Order (	Order Qty	Allocated Qty	Packed Qty	Shipped Qty	C
XORD00000...	05/19/2023 1...	*	STR016		1	10 units	10 units	10 units	10 units	0 units	0
GUORD57352...	05/18/2023 1...	*	GUSTORE1		1	10 units	10 units	10 units	10 units	0 units	0

Order Details Fill Rate Report

The Order Details Fill Rate Report shows an overview/summary of Allocated, Packed, Shipped, and Cancelled Order Quantity with respect to Alternate Item Codes.

This report gives you an insight on how well you have managed your inventory and how effective you are at fulfilling orders on SKU level.

To export the **Order Details Fill Rate Report**, do the following:

1. Go to the **Order Details Fill Rate Report** UI.
2. Select the records.

> **Note:** By default, all columns are checked and available on the Order Details Fill Rate Report screen. You can un-check the columns as per your requirement, on clicking the + button. Click the Export icon and select the report type.

3. Click the Export icon and select the report type.



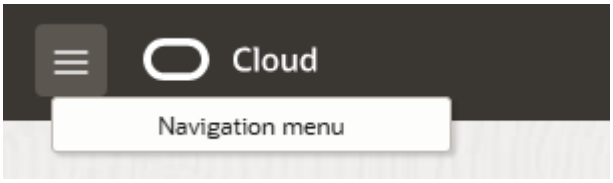
Order Nbr	Create Timestamp	Destination Company	Destination Facility	Customer PO N	Style	Alternate Item Codes	Original Order Qty	Order Qty	Allo
ORDWARN	05/17/2016 3:01:1...	*	01STR		NOR	NOR-SPRT-001	100	100	100
ORDERROR	05/17/2016 3:04:1...	*	01STR		NOR	NOR-SPRT-002	100	30	30

Download Compliance Documents

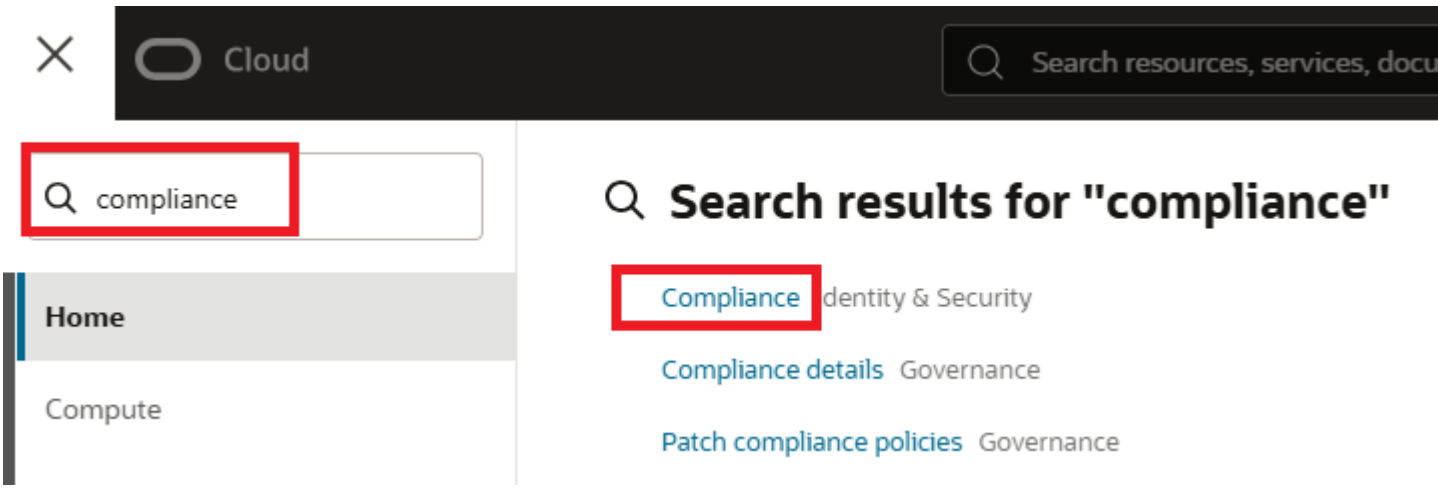
Compliance Documents are now available on the Oracle Cloud Console.

To access available documents:

1. Sign in to your Oracle Cloud Console Tenancy at *cloud.oracle.com*
2. Click the **Hamburger/Navigation Menu** in the upper left of the screen.



3. Type **Compliance** in the left search menu.



4. Click on the **Compliance link** from the search results.

> **Note:** All Available documents are listed for download under Compliance Documents. New reports will be posted as soon as they are completed.

Improved UI Search Optimization

You can optimize your item/record search capability using the special character "%" in the search string. Search results can be refined for multi-value searches, case-sensitivity, and types of matches (exact and partial).

You can optimize your search string with following steps:

1. Go to the UI screen where you'd like to search for records/items.
    - For case-sensitive "Starts With"
2. Place the special character "%" at the end of a search string (like so, "TEXT%") to find case-sensitive "Starts With" records.
    - For case-sensitive "Ends With"
3. Place the special character "%" at the beginning of a search string (like so, "%TEXT"), to find case-sensitive "Ends With" records.
    - For case-sensitive substring
4. Place the special character "%" at the beginning and end of a search string (like so, "%TEXT%") to find case-sensitive substring records.
5. Click "Search". The system will display the relevant results as per your query specification.

Note: You can also run multiple special characters in the search string using the conditional syntaxes "=", ",", "%<SOME_VALUE>%", "<SOME_VALUE>%" and "%<SOME_VALUE". For such scenarios, the system follows the order defined below to turn up search results:

- "=" character for a case-sensitive, exact match search.
- "," character for a case-sensitive, multi-value search.
- "%<SOME_VALUE>%" pattern for a case sensitive, partial match search.
- "<SOME_VALUE>%" and "%<SOME_VALUE" patterns for case sensitive starts with and ends with searches.

Saved Search

The following options enhance your search experience within the application.

Clearing Default Values in the Filter Criteria Pane:

To clear the default values in the filter criteria pane, follow these steps:

1. Locate the filter criteria pane on the search screen.
2. Click “Clear” button. This will remove all the values in the search pane and the saved searches from the drop-down panel.

Setting Associated Saved Search as Default:

You can set the associated saved search as the default search for convenience with following steps:

1. Access the Saved Searches panel.
2. Identify the saved search you want to set as default.
3. Check the “Default” checkbox next to the preferred saved search. This will designate it as the default search.

Note: Only one saved search can be set as default at a time. If you attempt to select a different saved search as default, the system will automatically disable the previous default search and enable the new selection.

Mandatory Fields in Filter Criteria:

Certain screens have mandatory fields in the filter criteria pane. These fields require specific combinations to fetch the desired records. The mandatory fields are marked with a blue asterisk (*) . If any of the mandatory fields are left empty during a search, an error message will be displayed: “At least one required search field must be populated.”

Mandatory Fields in Each UI:

Allocation UI:

- From Create TS
- Order Number
- Run Number
- Task Number
- Item Code
- IB LPN Number

Note: Ensure all mandatory fields are populated when performing a search in the Allocation screen.

Order Detail View UI:

- Order Number
- From Status
- To Status
- From Create TS
- Destination Facility
- Destination Company
- Customer Name
- Item Code

IB LPN Inquiry UI:

- IBLPN Number
- From Status
- To Status
- From Create TS
- Shipment Number
- PO Number
- Pallet Number
- Item

OB LPN Inquiry UI:

- OBLPN Number
- From Status
- To Status
- From Create TS
- Order Number
- Pallet Number
- Load Number
- Wave Number
- Item

Default Saved Search:

Saved searches can be curated to help you fetch data efficiently. The Default checkbox allows you to select your preferred saved search. Here's how it works:

- Access the Saved Searches panel.
- Locate the saved search you want to set as default.
- Check the "Default" checkbox next to the desired saved search. This makes it the default search.

Note: Only one saved search can be set as default. If there are multiple saved searches and none of them is set as default, the system clears all values from the Saved Search panel and reverts the filter criteria pane to mandatory values.

You can easily clear default values, set a default search, and benefit from mandatory fields to fetch accurate records with improved search options and streamline the search process.

Search Filters

Additional Search Filters in Users UI

You can refine your search based on active status, groups, hire dates, password expiration, and more. These filters help you quickly find the right users without manually sorting through long lists.

The following fields are added to the User UI search pane:

Field	Behavior
Active	• If Yes, the system filters and lists the users with active status. • If No, the system filters and lists the users with inactive status.
Default Group	• If a valid group is entered, the system filters and lists the users with that default group. • If an invalid group is entered, the system doesn't return the list of users.
Default Label Printer	• If a valid label printer is entered, the system filters and lists the users with that default label printer.

Field	Behavior
	• If an invalid label printer is entered, the system doesn't return the list of users.
Default Document Printer	• If a valid document printer is entered, the system filters and lists the users with that default document printer. • If an invalid document printer is entered, the system doesn't return the list of users.
From Hire Date	• If a date is selected, the system filters and lists the users who have the hire date from the provided hire date onward.
To Hire Date	• If a date is selected, the system filters and lists the users who have the hire date till the provided hire date.
Password expiry in (days)	• If an integer is entered, the system filters and lists the users whose password expires within the provided days. **For Example:** If the entered value is 100, the system filters the list of users whose password expires in less than 100 days from the present facility system date.
Password expiry after (days)	• If an integer is entered, the system filters and lists the users whose password expires after the provided days. **For Example:** If the provided value is 30, the system filters the list of users whose password expires after 30 days from the present facility system date.
Password Life in days	• If an integer is entered, the system filters and lists the users whose password life in days column matches with the provided days. **For Example:** If the provided value is 30, the system filters the list of users whose "password life in days" is configured as 30.

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.

Frequently Asked Questions (FAQ)

The following is a list of frequently asked questions about Warehouse Management Cloud:

Frequently Asked Questions

Functional Area	Question	Answer
OAuth 2.0 Setup		
	How do I configure OAuth 2.0 authentication in WMS?	1. Create a screen using module **'api/oauth2/applications'** (Screen Type UI-HTML-PP). 2. Navigate to the created screen and click the **Click here** hyperlink to register a new application. 3. Use the created screen to configure client applications that will connect to WMS

Functional Area	Question	Answer
		using OAuth2.0 to access REST APIs and click **Save**. Customers can have different applications to connect to integration tools, OIC is one of these.
Cloud Object Storage Extract / REST API		
	Where can I find more information about Extracting data for Cloud Object Store using a REST API?	See the *Data Extract* topic in the REST API Guide.
API Integration		
	What are the IPs listed and/or used for API Integration?	See the subscribed customer *API Integration* KB article for more information.
Endpoint Support		
	Where do I find more information about Endpoint Support in Output Interfaces?	See the Endpoint Support feature in the *What's New*.
Database Copy and Update Process		
	How is P2T Copy performed in WMS?	See the *Copy and Update Warehouse Management Databases* topic in the Implementation and Configuration Guide.
Serial Numbers		
	What happens if a user enters an incorrect serial number?	Serial numbers are validated against the expected serial (assuming the item/serial is already present in the warehouse). If the serial aasociated with the item is not present already, then the system checks to see if it is not present in another facility or has been already shipped from current facility etc.

Mobile Parameters

Refer to the **Mobile Parameters Quick Reference** excel document for more details about screen parameters for the most commonly used RF modules in WMS.

Note: To view and download the latest Mobile Parameters document, go to the *Oracle WMS Cloud Information Center.* From the top of the page, click the **Documentation** tab at the top, then click the link under **Current Documentation** and refer to the **Mobile Parameters Quick Reference** document.

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:** OLBPN 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.

Permissions for role: ADMINISTRATOR					
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
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

Permissions for role: SUPERVISOR	
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. **Note:** There may be some exceptions for access in some screens. For example, the Employee user can still create/update an entry in the Carrier Facility screen.

Inbound Sorting Criteria

Inbound Sorting Criteria	Description
Destination Area	Directed Putaway Area
Destination Aisle	Directed Putaway Aisle
Destination Allocation Zone	Directed Putaway Allocation Zone

Inbound Sorting Criteria	Description
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 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 Fields	Location Fields	Inventory (LPN) Fields	Order Fields
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	

Location Fields	Item Fields	Inventory (LPN) Fields
Last Count Timestamp	Part d	
Last Count User	Part e	
Size Type	Part f	
Allow Reserve Partial Pick Flag	External Style	
Alloc Zone	VAS Group Code	
Lock for Putaway Flag	Pre Pack Code	
Pick Zone	Short Description	
Replenishment Zone	Putaway Type	
Task Zone	Is Parent Flag	
Cust field 1	Product life	
Cust field 2	Velocity Code	
Cust field 3	Season Code	
Cust field 4	Brand Code	
Cust field 5	Hierarchy 1 Code	
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

Location Fields	
Aisle	Task Zone
Bay	Cust field 1
Level	Cust field 2
Position	Cust field 3
Type	Cust field 4
Barcode	Cust field 5
To be counted flag	Pick Sequence
Create Timestamp	Putaway Sequence
Mod Timestamp	
Lock Code	
Last Count Timestamp	
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 Mobile 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
- Audit Inbound LPN

Outbound Transactions

- Pack OB LPN
- Pick Cart
- Pack NC Active LPN
- Pick from Reserve
- Bulk Pick from Reserve/Active
- Distribute LPN
- Repack OBLPN
- Split Combine OBLPN
- Loading
- Modify/Cancel OB LPN
- Audit OBLPN