Oracle® Warehouse Management Cloud

Release Notes

Release 7.0

Part No. E84379-01

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Contents

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Oracle® Warehouse Management Cloud Release Notes, Release 7.0

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Preface

Oracle Warehouse Management Cloud was formerly known as LogFire.

Change History

Date	Document Revision	Summary of Changes
01/2017	-01	Original version.

1. Release 7.0

Introduction of Kitting Functionality

Many manufacturing companies owning distribution centres are shifting light assembly operations to the warehouse itself, taking advantage of a concept known as postponement. Manufacturers may leverage two postponement strategies: Logistics Postponement, and Product Postponement. In Logistics Postponement, companies perform assembly operations closer to the customer so that lead time is reduced. In Product Postponement, inventory is maintained for raw materials (components) and the assembly only happens after the sales order is received. Similarly, retailers create items commonly known as kits by bundling multiple SKUs. These kits are typically assembled when retailers run promotions to sell more volume. The process of making these bundles is essentially the same as the light manufacturing process.

Oracle Warehouse Management Cloud supports three main kitting flows in order to meet the aforementioned business requirements:

- Make to Stock flow: Kits are assembled for a Work Order, which may be interfaced by the Host or created directly in Oracle Warehouse Management Cloud. Kits are putaway in stock after they are assembled.
- Make to Order flow: Kits are assembled for a Sales Order. Oracle Warehouse Management Cloud will support auto-creating Work Orders for Sales Orders and linking Work Orders to existing Sales Orders. Kits are packed into the OBLPN upon assembly.
- De-kitting: Kits are disassembled for a Work Order. Individual components are stored after disassembly is completed.

To support the aforementioned flows, Oracle Warehouse Management Cloud added the following features:

- Ability to interface Work Orders for Assembly or Disassembly – Work Orders must be created with the kits as the details
- Creation of Work Orders through the UI
- Auto-creation of Work Orders for Sales Orders that have parent items – The auto-creation is enabled by linking a Work Order Type to an Order Type
- Linking a Work Order to a Sales Order through the new Work Order Interface
- Ability to interface Kitting Instructions and Scrap percentages through the Pre-pack Interface – The kit-component ratios (Bill of Material) are stored in the Pre-pack table
- Upload images for Items through the UI or through the new Item Image interface
- Ability to run Work Order Waves – New Work Order Wave Template, Work Order Search Template, Inventory Allocation Rules. The WO Wave reuses existing Replenishment Task Types
- Addition of and Assembly flag for Active locations – Inventory is brought to Assembly locations from storage (Reserve or Active) locations during the picking process
- Support assembly operation with Back-flush (components automatically consumed) using the new RF Process Work Order screen

Support disassembly operation (without scanning the components) using the new RF Process Work Order screen

Tracking Inventory Attributes

Clients need to track specific information about their inventory across all warehousing processes from Receiving to Shipping. This information often needs to be communicated to other client's systems. Some examples of information that businesses need to track at the inventory level are:

- Country of origin: Clients may source the same product from different countries
- Claim number: When customers return items for repair, businesses typically link them to a specific claim number
- Consigned Inventory: Companies, especially e-commerce, carry inventory in their Distribution Centers that is still owned by their suppliers. They need to differentiate this inventory from the inventory they actually own

In order to support the business requirements explained above and others, Oracle Warehouse Management Cloud tracks seven inventory attributes consistently across the core Inbound operations from Release 7.0. Support for the remaining Inbound and Outbound operations will be added in future releases. The main features to be covered in release 7.0 are:

- Four new attributes will be added, D, E, F and G to support a total of seven attributes. All inventory attributes support a length of 75 characters
- Inventory Attribute Tracking functionality is driven by the new item 'Inventory Attribute Tracking' fields.
    - If the field is set to '0,' the item does not track the specific attribute (Respective Attribute will not be prompted during inbound screens developed to prompt for attributes.
    - If the field is set to '1,' the item will track the attribute, but the receiving screens does not prompt for it if it's present in the IB Shipment detail
    - If the field is set to '2,' the item will track the attribute and the receiving screens display the attribute to the user for confirmation if it's present in the IB Shipment detail
    - Outside **receiving**, the application will assume the item tracks the attribute if the value is set to '1' or '2'
- Support storing multiple attribute values including batch and expiration date for the **same** item in a single LPN.
- Support for sending all seven attributes through all standard Input (except Point-of-Sale) and provision to send the attribute information in Output interfaces (except Standard Inv. Summary).
- New 'Inventory Attribute' barcode types to disallow scanning invalid barcodes for attribute (a-e).
- Scan inventory attributes during receiving with transactions RF Receive IB Shipment and Receive IB Load based on the item level 'Inventory Attribute Tracking' configuration.
- Existing screen parameter in receiving "prompt-attr-a" will prompt for attribute_a only when the scanned item is not tracking any of the inventory attribute. If the scanned item is tracking any of the inventory attribute and screen is configured to prompt for attribute_a, system does not prompt for attribute_a prompt.
- Location will have a new flag which prevents mixing multiple inventory attributes for a sku in a single location.
- RF Putaway user directed and system directed will take the new 'Restrict mix Inventory Attribute' location flag into account.
- Capture Inventory Attributes being tracked during Cycle Count in Immediate and Deferred modes
- Prompt for attributes while creating a new LPN from Create LPN Option.
- Track inventory attributes in Active locations. Transfer Inventory Attributes from LPN to Active Location when performing Putaway or Replenishment of full LPN.
- Prompt for Attributes if there is multiple inventory attribute combination for the same sku in an active location while creating LPN from Active.
- Edit/Remove inventory attributes for the IBLPN UI screen
- Modify the current quantity of an LPN through the IBLPN UI screen.

- Company Parameters ORDER_DTL_BLANK_INVN_ATTR_A_WILD_CARD, ORDER_DTL_BLANK_INVN_ATTR_B_WILD_CARD, ORDER_DTL_BLANK_INVN_ATTR_C_WILD_CARD is merged into a single Company Parameter. The behavior of all the seven attributes will be controlled through single company parameter. The value can be set to "Yes" or "No". if set to "yes" then system will consider the blank inventory attribute values for attribute a-g as wild card.
- Ignore Order Detail Inventory Attribute A, B and C columns in allocation mode sequence are merged into a single field. Whatever attributes needs to be ignored the respective attributes needs to be selected. All the seven attributes will be considered using the single field.

New Oracle Warehouse Management Cloud App and Increase Compatibility with Mobile Devices

We are expanding the use of HTML5 across the Web User Interface for increased compatibility with mobile devices. The Oracle Warehouse Management Cloud app was launched as part of this release and runs on Android and iOS devices. The app provides easier, on-the-go access to our application. The display is optimized for tablets for now and it will be improved for phones in future releases. The Oracle Warehouse Management Cloud app supports access to:

- Oracle Warehouse Management Cloud User Interface
- Oracle Warehouse Management Cloud Web reports

New RF Screen To Pick and Allocate by Order

Contrary to Distribution Centres, in Stores picking is not done for a batch of orders at the same time. The chances of running a wave are minimal as there is no easy way to determine when a customer will pick up his order. This requires stores personnel to pick ordered items without having to run a wave.

The new RF Pick and Allocate Screen was developed to address these requirements. This screen allows users to select a specific order and pick the corresponding inventory. Only orders that have the Order Type flag 'Allocate during pick' are eligible for picking with this Option.

- Users can initiate the Pick and Allocate Screen by entering an order or by selecting an order from the Prioritised List of Order Pool. Clients can associate a Rule for Sorting the Orders. The same rule has to be added as a screen parameter value. Users have the below mentioned options to select the Order for Picking

1. Enter Order
2. Select the Order Type and then Prioritised List of Orders within the Order Type
3. Directly select from the prioritised list of Orders.

- For option 2-3 the order sequencing/sorting rule needs to be configured to achieve the desired result.
- RF Pick and Allocate can be configured to pick inventory in two modes (User Directed or System Driven).
    - In Case of User Directed Mode Picker is free to pick inventory for the order in any sequence and user can scan any location. The Location to have inventory for the item being picked. User Directed Mode supports picking from Active and Reserve Location.
    - In System Driven mode, user need not scan a location at all. Allocation of Inventory is determined based on the allocation mode rule tied to the screen. The Order of Allocation is determined based on the Allocation Mode rule associated with the screen. This can be helpful for environments where the numbers of pick locations are few and association of item to location sanctity is not important.

    - Both the Modes support picking items in sku-Qty entry mode or sku-scan mode.
- Once all the Picks are complete, screen can be configured to place the locations to a drop location or auto load the LPN's. Assignment of the Cartons to the Load will happen when user ends the Carton, whether to auto load the carton is driven through a screen parameter.
- User will have the option to end the LPN to open a new LPN for Picking
- Packing Restriction rules can be configured to prevent packing incompatible items. Packing Restriction Rule can be configured and associated with the screen parameter.
- Provision to view the LPN's picked based on hot key is also provided.

Blind Receiving

Several suppliers do not send Advanced Shipment Notifications (ASNs) when shipping inventory to their client's warehouses. Thus, companies require a way to receive inventory into their Distribution Centres without an ASN (Inbound Shipment).

In release 7.0, Oracle Warehouse Management Cloud supports receiving inventory without an ASN by adding the new 'Blind receiving' option to the "mode" parameter in the RF Receive IB shipment screen. When the 'Blind receiving' option is configured:

- The application will not prompt users to scan a PO nor ASN to initialize receiving; it will just prompt users to scan a blind LPN.
- Upon closing the first LPN, the application will auto generate an Inbound Shipment in the background. The receiving screen will display the Inbound Shipment number so that the user is aware of it. This IB Shipment can be verified for integration purposes if required.
- Subsequent LPNs that are received in the same session will be added to this Inbound Shipment.
- All the other modes like receiving with pallet upfront, after, LPN as physical pallet, cross-dock, etc. will be supported in 'Blind receiving' mode.

PO Based Receiving

Suppliers may not send Advanced Shipment Notifications (ASNs) when shipping inventory to their client's warehouses, but they may send electronic Purchase Orders (POs). Clients need to be able to receive inventory against these POs without the need of an ASN.

Currently, the system allows creating Inbound Shipments for Purchase Orders automatically when the Purchase Order is interfaced if the Vendor Characteristics flag 'Create ASN on PO Interface' is enabled for the corresponding vendor. In release 7.0, Oracle Warehouse Management Cloud will leverage this functionality to support receiving of inventory by scanning a Purchase Order. The high-level changes to enable PO based receiving are:

- A new option 'PO receiving' will be added to the "mode" parameter in the RF Receive IB Shipment screen
- When 'PO receiving' option is enabled, the transaction will prompt users to scan a PO Number to initiate receiving.
- Upon scanning the PO Number:
    - If the PO is linked to multiple Inbound Shipments, the screen will provide an error message and will not allow users to proceed with receiving.
    - If the PO is linked to an unverified Inbound Shipment, users will be allowed to 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 application will auto-generate an Inbound Shipment in the background for the whole PO and allow users to receive. The 'Create ASN for PO Interface' flag should be enabled for the corresponding vendor.
    - If the PO is linked to a verified Inbound Shipment, the application will auto-generate an Inbound Shipment for the quantity pending to be received. The 'Create ASN for PO Interface' flag should be enabled for the corresponding vendor.
- Additionally, users will be able to make appointments for specific PO Numbers so that they can check in 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.

Update OBLPN's Status to Delivered for Facility Transfers

Oracle Warehouse Management Cloud supports the auto-creation of IB Shipments (ASNs) when shipping a Load to a facility that is managed within Oracle Warehouse Management Cloud. These IB Shipments are generated with the shipped OBLPNs as IBLPNs. When these IBLPNs are received at the ship-to facility, the application will now update 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. Complementary, the transactions that already supported reusing OBLPNs in 'Shipped' status, will also support reusing OBLPNs in 'Delivered' status.

Location Interface Improvements

The enhancements listed below were done to the Location interface:

- The 'Facility code' field was added to provide users with the ability to upload Locations for a particular facility or multiple facilities. If the 'Facility code' is not provided in the file, the interface will upload locations for logged in facility, retaining existing behavior.
- Currently, users can lock a location through the Location UI screen. In 7.0, the 'Lock code' field was added to the Location interface to provide the ability of locking several locations at once.
- The new 'restrict_attribute_flag' was added to restrict storing inventory with different inventory attribute values for the same item in the same location.
- Provision to tag a location as 'Assembly Location.' Such locations are used for Kitting and De-kitting Operations.

Auto-Generate One OBLPN per Order During Packing

This enhancement is meant to be used to pick many identical Orders in bulk, which is useful, for example, when clients offer periodic discounts for an item.

To enable this functionality set the new parameter 'split-allocs-on-close-by' equal to 'Order Number' in the RF Pack NC screen. Additionally, set the parameter 'break-picks-by' equal to 'None' so that multiple orders can be picked in the same LPN. When the LPN that was used to pick (intermediate LPN) is closed with 'Ctrl-E: Close LPN' or when the task is completed, the application will auto-generate one OBLPN in 'Packed' status for each Order that was picked in the intermediate LPN and proceed to cancel the same.

In order to provide an efficient way to print the labels for the OBLPNs auto-generated by the process explained in the previous paragraph, the 'Print Shipping labels' transaction was enhanced to:

- Print labels for all the auto-generated OBLPNs by scanning the intermediate OBLPN (which should be in 'Cancelled' status)
    - A new parameter will be added to this transaction to control this behavior.
- Print multiple label types for an OBLPN by attaching a Column Ordering rule to the new parameter 'column-ordering-descr'
    - Configure the label types to be printed in the 'OBLPN Label Types' child-screen in the 'Column Ordering' UI screen
    - All label types for a given OBLPN will be printed before those of the next OBLPN

Addition of Screen and Module Name to Inventory History

The name of the RF or UI screen and the corresponding module that generates the Inventory History record will be populated in the new 'Screen name' and 'Module name' fields respectively. This will facilitate mapping Inventory History records that are generated across multiple screens.

Single Format for Order and Order Instruction Interfaces

Prior to release 7.0, Orders and Order Instructions had to be interfaced separately. The hierarchical Order interface (ORR) now supports sending Order Instructions in this file as [H3] records. This enhancement combines the preexisting Order Instruction and hierarchical Order interfaces in a single-file format.

- [H1] holds the Order Header information.
- [H2] holds the Order Detail information.
- [H3] holds the Order Instruction information.

Pack OBLPNs with Single UOMs with RF Pack OBLPN

In release 6.4, we added functionality to the 'Cubing Rules' to generate one OBLPN for every X number of UOMs (Cases, Packs or Units) with the Wave. This is supported by setting the 'Break by Modifier' value to 'Split by alloc UOM' and the 'Break by Quantity' field to the max number of UOMs that should be in one OBLPN.

Users can now pack the OBLPNs that were generated by the wave with the RF Pack OBLPN screen as long as they were created with one UOM (case, pack or unit). To support this, the screen parameter 'allowed-allocation-types' must be set to 'Full LPN and Single UOM.' To pick these OBLPNs using tasks, the new task types 'CUBEDSINGLEUNIT,' 'CUBEDSINGLEPACK' or 'CUBEDSINGLECASE' must be configured in the corresponding Task Creation Template.

This enhancement allows users to palletize the OBLPNs as they pick/pack them. To provide additional flexibility, the parameter 'allow-mix-dest-shipto' was added to RF Pack OBLPN to restrict the palletization of OBLPNs going to different destinations and/or ship-tos in the same pallet:

- If the parameter is set to 'Palletize allow mix Ship To and Destination,' the screen will allow palletizing OBLPNs in the same pallet regardless of their destination or ship to information.
- If the parameter is set to 'Palletize allow mix Destinations only,' the screen will allow palletizing OBLPNs in the same pallet only if they are for the same Destination facility or customer address. It won't allow mixing different Ship To facilities or addresses in the same pallet.

- If the parameter is set to 'Palletize allow mix Ship To only,' the screen will allow palletizing OBLPNs in the same pallet only if they are for the same Ship To facility or address. It won't allow mixing different Destination facilities or customer addresses in the same pallet.
- If the parameter is set to 'Palletize do not allow mix Ship To and Dest,' the screen will not allow palletizing OBLPNs in the same if they're for different Ship To or Destination information.

Receive by Quantity with RF Sort and Receive

The RF Sort and Receive screen supported sorting inventory into LPNs by scanning each unit prior to release 7.0. In this release, RF Sort and Receive has been enhanced to sort inventory by scanning the SKU and entering the corresponding quantity. The system sorts the quantity entered to a respective LPN. The screen parameter 'qty-entry-mode' must be set to 'SKU Qty' to enable this feature.

Send Web Reports Via Email in Zipped or Original Format Depending on Size

Currently, the application sends all web-reports in a zipped format via email. Oracle Warehouse Management Cloud will add a file size threshold at the instance level to send these reports as the original format if they are below such threshold. This will make this feature more convenient as user will no longer have to unzip simple, small reports.

New Output Interface Configuration Screen and Improvements to Existing Output Interface Screen

The output interface file generation and transmission has been overhauled to allow greater flexibility in configuration, to provide tracking and information within the UI, and to empower our customers to handle tasks that used to require support. As part of this effort, we have added the new 'Output Interface Configuration' screen and made improvements to the existing 'Output Interface' screen. The most important changes are:

- New Output Interface Configuration screen
    - Added support to send files to internal and external FTPs and to POST directly to external endpoints
    - Ability to send an 'Acknowledgment' email with the transmitted file as an attachment
    - Configure a max number of retries if a file fails for any reason
    - Configurable retry delay – Delay between failure retries
    - Ability to send a 'Failure' email on each retry
- Output Interfaces
    - More efficient flat file processing – Output files may be processed as soon as they're generated instead of by a scheduled job
    - New Resend button can be used to manually reprocess a set of files
    - The new Interface Logs button brings up a new screen with information such as failure error messages, target information, process status, etc.

Support Standard Inventory Summary and Item Barcode Interfaces through Web Services

Prior to release 7.0, the Standard Inventory Summary output interface and the Item Barcode input interface were only supported in flat-file version. These interfaces are now supported in our standard XML formats through Web Services.

2. Release 7.0.1

Prevent Shipping Partially Loaded Orders

The new Order Type field 'Single order on multiple Loads' was introduced to prevent shipping orders that are not loaded in a single OB Load. If this new field is set to "Allow," the system retains the current behavior and allows shipping the order in one or multiple OB Loads. If the field is set to "Allow with Warning," the Close Load option (from UI or RF) will display a warning message if it detects that at least one ordered item has not been loaded in the Load being closed. If the field is set to "Do not allow," the Close Load option will not allow closing the Load (from UI nor RF) if it detects that at least one ordered item has not been loaded.

Enforce Loading OBLPNS That Belong to the Same Order Together

When new Order Type field 'Single order on multiple Loads' is set to "Allow with warning" or "Do not allow" and the RF Load OBLPN parameter 'load-by-order' is set to "Yes," the screen will prompt the user to load all the cartons for the order together. The RF Load OBLPN screen will prompt the user to scan ALL the OBLPNs that belong to this order before he can proceed to load any remaining OBLPNs; it will only allow to start loading a given order if all the corresponding inventory is packed. The screen will display additional information for each OBLPN such as its Location, the Order number, and the total quantity, so that users can easily find the OBLPNs that need to be loaded. Using Control keys, users will also be able to skip through OBLPNs that belong that particular Order, display a list of all the OBLPNs that belong to the Order and skip the Order in case they want to load a different one. Note that in this mode, users will only be able to load multi-Order OBLPNs if all of the ordered inventory is in that specific OBLPN. Similarly, in this mode, the screen will only allow loading pallets, if all the ordered inventory is tied to that pallet.

New Wave Template Search Criterion: Order Status

Clients may have different picking/packing flows for orders depending on their status. The new Wave Template Search criterion, Order Status, can be leveraged to separate these flows by configuring separate Wave Templates. Clients will be able to configure Wave templates to select orders in 'Created,' 'Partly allocated' or both (leaving the field blank) statuses.

Expansion of QC Process

QC process for inbound will be expanded to provide additional configurations and a few standard verification checks. Currently the QC Process is completely blind.

As part of Release 7.0.1, The application can be configured to track the process of QC by assigning standard verification checks and also user defined verification checks. RF QC program has been enhanced to display the appropriate verification checks and system allows user to capture the input.

Overall QC process has been enhanced so that verification pointers (check lists) can be configured and system shall prompt for those verification pointers based on associated Vendor/Shipment type combinations. Below mentioned are some of the main features added.

Expansion of Vendor QC Configuration:

Vendor QC configuration will be enhanced to have two additional columns to determine the percentage of inventory being received to be pushed to QC. Now apart from Vendor we can use columns like IB Shipment Type, Item Putaway Type, Item facility Putaway Type. This provides flexibility to configure the percentage of received inventory that must go through QC. There will be a provision to configure QC selection rules for any vendor (*) as well.

New Screen to Manually Mark LPNs or Items for QC.

Additionally, users will be able to manually mark the LPNs which are not received using a new RF Option for QC outside of Vendor QC configuration. This option will be helpful to randomly mark incoming LPN's for QC. Randomly marked LPN's will be considered for QC even though Appropriate Vendor QC configuration is not present.

Receiving Changes

Receiving logic will be enhanced to mark the LPNs for QC considering the new Vendor QC configuration fields and also based on the shipment details that are manually marked for QC. The receiving screens will also be enhanced to either prompt for QC location or not based on a screen parameter. Existing screen parameter qc_flag has been changed to qc_handling_mode with the option of Mark for QC prompt QC locn or Mark for QC do not prompt QC locn. New Inventory History Record gets created when LPN gets marked for QC as part of Receiving process.

Verification Question Configuration for QC Process:

Provision to configure Verification Questions and associate them to the combination of Vendor, Shipment Type and Facility. System will provide Verification Checks which are standard like Verify total Qty, Verification of standard Pack Qty of the item and Verification of standard Case Qty., Apart from the above three users can configure user defined verification questions which are not supplied by the system (like, Packing done properly or not, Labels Applied yes or no etc) and system can capture the inputs provided before user accepts the LPN as part of QC.

Users can coin a name to be displayed for verification checks which are standard and also for custom questions. So different verification questions can be assigned by Vendor/Shipment Type/Facility Combination.

RF QC Process Expansion:

Existing RF QC program will be enhanced to prompt the verification checks defined in the configuration mentioned in the previous paragraph. Users will be able to select the verification question that they want to execute. Verification checks to be prompted for the LPN will be controlled by the combination of Vendor, Shipment Type and Facility combination.

For Verify Total Qty: Standard Verification Question supported to enter quantity in sku-scan or sku-qty entry mode in different UOMs like units/packs and cases. QC personnel can validate the quantity present in the LPN and record the actual qty present on the LPN. For release 7.0.1 items tracking batch/expiry date/serial numbers/inventory attributes are not supported for verification of total qty. RF QC will support counting Inventory which does not track batch/expiry/inventory attribute and serial number.

Verify Standard Pack Qty and Standard Case Qty will also be provided as a verification point and clients will be prompted to verify the standard Pack Qty or standard Case Qty of the corresponding inventory against the item.

User Defined Verification Questions at LPN level or items level can also be answered.

The results of the inputs provided for the verification questions through RF will be displayed in the new User Interface "QC Verification Result," so that supervisors can see what was counted.

QC users will have the option to Accept or Reject the LPN at any point in the verification process during RF QC. Once an LPN is accepted overage tolerance checks are also performed.

If screen parameter option to capture the vendor performance code for the LPN being accepted or rejected can be configured.

Provision is made to also call distribute LPN option once the QC is accepted through RF so that user does not have to scan the LPN multiple times. This is controlled through a screen parameter for RF QC.

The new inventory history records 73-QC Accepted or 74- QC Rejected will be written when and LPN is Accepted or Rejected.

Option to Approve or Reject the LPN through Inbound LPN Inquiry and ASN Inquiry will continue to exist, when QC process is approved through UI, quantity overage tolerance checks shall be performed. As of Release 7.0.1 answering verification questions as part of UI is not considered, providing inputs for the verification questions will have to done as part of RF QC only.

Display 'Putaway Type' in The RF Manual Putaway to Active Screen

The RF Manual Putaway to Active screen will now display the 'Putaway Type' after the Item is scanned. The screen will display the 'Putaway Type' from the corresponding Item Facility record, but if it's not found, it will display the one from the Item record. Moreover, this screen will display a warning message when the Location scan has a Location Size Type that is different from the 'Putaway Type.' This message can be disabled in the Messages UI screen.

Execute Work Order Waves Automatically

In release 7.0.1, Work Order Wave templates can be executed automatically using scheduled jobs. These jobs can only be configured by Oracle Warehouse Management Cloud employees using the AIT tool, but they can be viewed in the 'Scheduled Jobs' UI screen.

Item Facility Fields Exposed to Task Creation Ordering and Selection Criteria

The Item Facility 'Replen Type,' 'PA Type' 'Active Location Type' and 'Conveyable' fields were exposed to the Task Creation Ordering and Selection Criteria rules. Users will now be able to order and break tasks by any of these fields.

Provision to Auto-Pack LPNs Allocated for Distribution by Item

Currently, when the RF Distribute 'autopack-mode' parameter is set to "Alloc UOM," the screen generates an OBLPN for each UOM that was allocated from the LPN and prints the corresponding Shipping labels. This may be problematic when the generated OBLPNs have different SKUs and quantities as the user has to match the label to each OBLPN. In release 7.0.1, when the parameter 'autopack-mode' is set to the new option "Alloc UOM on SKU scan," the screen has a field to scan the Item after the LPN. When the Item is scanned, the application will only generate one OBLPN for this item with its corresponding Alloc UOM (Case, Pack or Unit) and print the corresponding Shipping label. The screen will prompt for subsequent Items until all the LPN's allocations are consumed.

Prevent Putaway for Locked LPNs

The new flag 'Prevent Putaway' will be added at the Lock code level. If this flag is enabled, the RF Putaway and RF Manual Putaway to Active transactions will prevent scanning LPNs that have the corresponding Lock Code. Additionally, the RF Locate LPN transaction will display a warning message when scanning an LPN with a Lock Code that has this flag enabled. This will allow preventing the putaway of damaged, spoiled inventory in locations that have good stock.

Zone Picking with Suggested Drop Location

Oracle Warehouse Management Cloud supports a Zone Picking process in which users may pass the LPN(s) being picked from one zone to the next, so that they do not have to travel around the whole warehouse to complete picking. If the RF Pack NC screen parameter 'zone-picking' is set to the new value "Zone Picking with suggested Drop," the screen will prompt the user to scan the Drop location that belongs to the next Pick Zone with outstanding picks. The user will be able to scan this specific Drop location or any other Drop location that belongs to that Pick Zone.

Display Order Instructions When Cross-Docking an LPN

Clients can now interface Order Instructions with type 'RF Display.' Order Instructions with this type will now be displayed to users in the RF when a cross-dock allocation is successful. The instructions will be displayed when performing cross-dock from the RF Receiving or RF Distribute LPN screens. Users will be able to view all Instructions linked to the corresponding Order and Order details.

New 'Send Order Info' Button to Generate the Order Outbound Load File Manually

The new 'Send Order Info' button, added to the Order Header UI screen will trigger the generation of the Order Outbound Load Export file. This file can be generated our standard Hierarchical, Header/Detail, One Line and XML formats, depending on the Output Interface Configuration settings. The format of these files are the same as those of the Outbound Load Export file, so they are documented in the corresponding tabs of version 25 of the Oracle Warehouse Management Cloud Interface File Formats spec.

Prevent Picking Different Items in an LPN with RF Pick IBLPN

The RF Pick IBLPN screen is used when executing 'Consolidate and Distribute' tasks to pick inventory into an intermediate LPN that will later be distributed to different destinations. Users will be able to set the new screen parameter 'allow-multi-sku-flg' to "No," to prevent picking different Items in the same LPN. This enhancement is particularly useful when the distribution process is done by Material Handle Equipment that is only able to process single-SKU LPNs.

Inventory Attribute Tracking in RF Split IBLPN

RF Split IBLPN now supports tracking inventory attributes. The screen will prompt the user to scan one or more inventory attributes if the item being split has different inventory attribute values in the source Inbound LPN.

New Receiving API

Some clients perform Receiving and Cross-docking operations using MHE. To support those flows, a new Receiving and Cross Dock API will be developed to perform the corresponding updates without manual intervention. This API will be exposed as a Web Service. MHE systems can make a call to the API to record receipts in WMS. Only cartonized ASN receipts for items that do not track batch, expiry date, inventory attributes or serial numbers will be supported in the initial release. This Web Service API can also accept an XML data argument which could be used to update custom fields.

New Create LPN API

Some clients, especially manufacturing plants, use robots (MHE) to place new inventory onto pallets and label it appropriately. This process had to be handled manually in Oracle Warehouse Management Cloud, leveraging the RF Create LPN screen. In order to make this process more efficient, we exposed

a Web Service API to perform Create LPN updates automatically. The MHE system can call this API, providing the required fields, to Create LPNs without manual intervention. Additionally, the API allows cross-docking the LPN to a specific facility when the 'xdock_lpn_flg' is set to "True" and the 'order_type' and 'dest_facility_code' are passed in the API. Note that the API only allows creating/cross-docking of single-SKU LPNs that do not contain multiple batch numbers, expiry dates, nor any inventory attributes nor serial numbers.

OUTPUT_LGF_FINFO Facility and Company Parameters to Support Interface Formats from Previous Releases

New releases may include changes to the standard output interfaces such as the addition of new fields or the expansion of existing fields. These changes may affect the integration with some client host systems. Thus, we added functionality in release 7.0.0 to support sending output interfaces in a previous release format by entering the value 'lgfx.x.x' (where x.x.x is the release format that the client wants to use) in the company and/or facility parameter 'OUTPUT_LGF_FINFO' for the corresponding interface. The interfaces that support this parameter are: Outbound Load, Outbound Load Parcel, Order Out (used in Cross-dock flow), Inventory History and Shipment Verification. Leaving these parameters blank or set to 'lgf,' indicates that the client is using the current release's format. In release 7.0.0, only the value 'lgf6.4.2' is supported and in release 7.0.1, we added support for the value 'lgf7.0.0.' Notice that for each output interface, the company parameter overrides the facility parameter. Additionally, in 3PL environments, the child company parameter overrides the parent company parameter, which in turn overrides the facility one.

Set Status of the To OBLPN to 'Picked' with RF Repack

Clients, especially those in the e-commerce business, pick items for multiple orders in an intermediate LPN and then segregate these items by order into cubby locations. This flow can be configured in Oracle Warehouse Management Cloud using RF Pack NC to pick the items into the intermediate LPN (setting the screen parameter 'break-picks-by' = "None"), RF Repack to transfer these items into cubby location and an Asset Number for each cubby. However, these Assets should not go to 'Packed' status as they are not the containers in which the inventory will be shipped and they need not be manifested. Users will now be able to configure the RF Repack parameter 'close-oblpn-status' to "Picked" to set the To OBLPN (Asset) to this status instead of 'Packed.'

Single LPN-to-LPN Combination with RF Repack

As described in point 17, e-commerce clients can segregate picked inventory into cubicles by order with RF Repack. Once the inventory is segregated, RF Repack can also be used to transfer this inventory from the cubicles to the OB LPNs where it will be shipped. This flow assumes that all the inventory in one cubicle will be shipped together in one OBLPN. When parameter 'cmbne-one-src-to-one-lpn' is set to "Yes," the RF Repack transaction will auto-generate an OBLPN and populate it in the To OBLPN scan field every time a new From LPN is scanned. This functionality allows transferring the cubicle's inventory to one carton without scanning a blind label.

Auto-Assign a Destination Zone per Task per Wave Run

Currently, assignment of Destination Zones to tasks when waving is a static process. In release 7.0.1, the 'Assign Destination Zone' flag can be enabled at the Task Creation Rule level to assign them dynamically. When this flag is enabled, the wave will assign the first Destination Zone from the comma-separated list configured in the 'Dynamic Destination Zones' field that does not have any pending tasks nor located inventory. The Destination Zones will be evaluated in the order in which they are entered in the list. If all the configured Destination Zones have at least one incomplete task or a located LPN, the wave will not create any tasks, but it will still create allocations.

This enhancement is useful for clients who have different areas with limited capacity, where they perform packing, VAS, sorting or other outbound operations. Assigning only Destination Zones without

pending tasks nor inventory, they can distribute picked inventory into different Zones in a more dynamic, automatic way.

Create Tasks for a Wave Run from the Wave Inquiry UI Screen

If a Wave Template is not configured with a Task Creation Template, the wave creates allocations without tasks. Users can now select the corresponding Wave run record in the Wave Inquiry screen and click the 'Create Tasks' button to create tasks for these allocations. Once the button is selected, the screen will display a pop-up, where the user can select the Template he wants to use to create tasks. The application will refer to the current configuration of the selected Task Creation Template to create the tasks. The template must have compatible Task Types to create tasks successfully. This feature is particularly useful when the Wave does not create tasks during the dynamic assignment of Destination Zones process described in point 19.

Ability to Remove the Qty Prompt for RF Distribute LPN Replenishment

When executing 'Cases Replenishment' and 'Consolidate Replenish' tasks (used in the Replenishment and Work Order flows), it may be tedious to confirm the quantity of each Item after scanning the destination location when the all the LPN's contents are for one location. For this reason, we added the new parameter 'skip-SKU-confirmation' to the RF Distribute LPN Replenishment screen. If this new parameter is set to "Skip if LPN for one locn," the screen will not ask the user to confirm the quantity if the all the inventory in the LPN is to be placed in one destination location. If the inventory is for multiple locations, the screen will continue prompting the user to confirm the quantity for each Item.

Ability to Resize Barcodes in the Label Designer

Users will be able to resize barcodes in the Label Designer. The tool will allow users to specify the length of the barcode's horizontal axis. Based on the horizontal's axis length, the tool will auto-calculate the length of the vertical axis based on an algorithm.

Print Multiple Label Types and Packing Slips from the Same RF Transaction

The RF Print Ship Label screen will be enhanced to support printing Packing Slips in addition to OBLPN labels. In release 7.0, we added the ability to print multiple OBLPN Label Types for an OBLPN by attaching a Column Ordering Rule to the parameter 'column-ordering-descr.' (Please review the 7.0 Release Notes for more information about this functionality). In release 7.0.1, we're adding the additional parameter 'print-packing-slip' to this transaction where users will be able to configure options to print a packing slip at the Order level, OBLPN level or both. If the parameter is configured to print both packing slips, the Order level slip will only be printed when the user scans the OBLPN with the highest sequence number for that Order. Also, if the parameter is configured to print the Order packing slip or both Order and OBLPN, the Order needs to be in "Packed" status or greater for the documents to be printed.

Provision to Palletize Multiple Pallets More Efficiently

Currently, the RF Palletize prompts the user to scan a pallet and then subsequent LPNs; it will only prompt for a new pallet when the user enters 'Ctrl-E: Close Pallet.' This can inefficient when users have to palletize multiple pallets in parallel. Users will be able to set the new screen parameter 'pallet-scan-options' to "Scan pallet for each LPN" in order to palletize by scanning the pallet number after every LPN, allowing them to palletize multiple pallets more efficiently.

Generate Output Interfaces for Multiple Targets

Some clients may have different applications that need to receive information from Oracle Warehouse Management Cloud. Users will now be able to send Output Interface messages to multiple host systems. The existing Output Interface Configuration UI screen no has a Detail button that gives access to the new Output Interface Targets screen. In this new screen, users can add multiple targets for the same Output Interface. The application will generate a copy of the Output Interface for each record configured in this screen. Notice that the format remains at the header level, so for a given Interface, the same format should be sent to all host systems.

Provision to Filter Output Interface Data

Users will now be able to configure criteria to filter Output Interfaces using the new Filter Criteria option in the new Output Interface Target screen. Only the records that match the configured criteria will be included in the interface. In release 7.0.1, this will only be supported for the Inventory History and Outbound Load interfaces. It is recommended to avoid using this functionality for interfaces generated in the 'Header/Detail' format, because the Header file will be generated even if none of the data in the Detail file matches the Filter Criteria.

Break Order And/Or IB Shipment Details with Pre-Packs into Children Automatically

Some clients receive, pick and ship pre-pack inventory at the child item level even though the host system sends IB Shipment and Order details at the parent level. These IB Shipment and/or Order details need to be broken into the corresponding children so that warehouse operators can handle them. Users can now enable the 'Break Pre-packs' flag at the IB Shipment Type and/or Order Type level to break the corresponding IB Shipment and/or Order pre-pack details into children automatically when the IB Shipment and/or Order is created via interface.

Consolidate Output Interface Details with Host-Unaware Children into Pre-Packs

Dealing with pre-packs, some host systems are only aware of the parent items but do not hold the definitions of the corresponding child items. These pre-packs may be handled (from receiving to shipping) in the warehouse at the child level, but the corresponding Output Interfaces need to be sent back to the host at the parent level. If the new company parameter 'CONSOL_PREPACK_HOST_UNAWARE_CHILDREN' is enabled, the Shipment Verification and Outbound Load interfaces will now consolidate child item records that have the host-aware flag disabled into their corresponding parents, provided that the parents have the host-aware flag enabled. Notice that some of the interface fields like LPN, inventory attributes, batch number, etc. will be blank for the consolidated records.

Ability to Select a Staging Location When Multiple Ones Have the Same Matching Value

Currently, when multiple staging locations have overlapping criteria in the 'Stage Location Configuration' UI screen, the RF Dynamic Staging screen only directs users to the first matching location based on Putaway sequence. In the new release, if the new screen parameter 'stage-locn-selection' is set to "User selected," the RF Dynamic Stating screen will display a list of all staging locations with matching 'Criteria Value' or 'Current Value' so that the user can scan one of them.

New Integration with DHL Global Mail

In release 7.0.1, Oracle Warehouse Management Cloud can integrate with DHL Global Mail. The integration with this carrier will be supported when the Integration Type is set to ConnectShip. Various DHL service types can now be selected from the Ship Via screen. Connectship will provide the tracking numbers and shipping labels for the supported service types.

Enhancement to the RF Process Work Order Screen

The RF Process Work Order screen will now have a Ctrl key to display the components of a kit when performing assembly. This will allow them to see the components that need to be fetched from the Assembly location when performing the operation. Additionally, the new screen parameter 'screen-initiation-mode' was added to the same screen in order to give users the option to initiate the assembly or dis-assembly process by scanning an Assembly location instead of a Work Order number. When the Assembly location is scanned, the screen will display a list of Work Orders that have enough components in that location to complete at least one parent item. Similarly, in the case of dis-assembly, it will display the list of Work Orders that have at least one kit in the location pending disassembly. Users can then select a Work Order from this list to complete the corresponding operation.

New Wave Pick Info Message

Some clients need to send Wave allocation information to external systems, such as Material Handle Equipment that assists with the Picking process, e-commerce Websites for Order status updates, etc. This message can be generated from the following triggers in the application:

4. If the 'Auto release pick info' flag at the Wave Template level is enabled, the message will be generated automatically as soon as the wave completes. When user undoes the corresponding wave-run, if this flag is enabled, the application will also generate the message but with a different action code.
5. Select a wave-run record in the Wave Inquiry screen and click the 'Release Pick Info' button.

If the wave creates an allocation, the record will be written in the message with an action code of 'CREATE.' When the wave cancels an order detail (Cancel Unallocated flag is enabled), the record will be created with an action code of 'CANCEL.' When user selects a wave-run record and clicks 'Release Pick Info,' the message will be generated with an action code of CREATE, CANCEL or UNDO depending on the status of the Wave. The format and target for this file can be configured in the Output Interface Configuration UI screen and the supported formats are One Line and XML. We will add this interface to the standard Interface Formats document in release 7.0.2.

3. Release 7.0.2

Cycle Counting Specific SKUs in a Location

The RF Cycle Count screen now supports a new mode to count only specific SKUs in an Active location instead of all the SKUs. This new functionality is particularly useful for store-like locations that have a high mix of SKUs. Previously, when users ended the count for a location, the screen adjusted the SKUs that were not counted down to zero. When the new screen parameter 'update-entire-locn-inv' is set to "NO" and the count for a location is ended, the screen only adjusts the SKUs that were counted. This new counting method is supported both in SKU Quantity and SKU Scan modes.

Cross-Dock Allocation of Multi-SKU LPNs Without 'Receive Xdock Facility'

Before release 7.0.2, the application only cross-docked multi-SKU LPNs when the Order details were populated with the 'Required Container' field or when the corresponding Inbound Shipment details had the 'Receive Xdock Facility Code' field populated. In 7.0.2, we added a new option to the 'xdock-mode' parameter that will allow allocating multi-SKU LPNs through cross-dock, regardless of whether the 'Receive Xdock Facility Code' is populated. This new mode will be added to all the RF screens that currently have the 'xdock-mode' parameter: RF Receive IB Shipment, RF Receive IB Load, RF Distribute LPN and RF Putaway. With the new mode, a multi-SKU LPN may be allocated to more than one order that goes to the same destination if the company parameter 'MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY' is set to "No."

Moreover, the company parameter 'XDOCK_ORD_INV_ATTR_CHECKS' was introduced as part of this effort. This parameter will control whether LPNs allocated through the new cross-dock mode need to match order detail inventory attribute fields or not. If the parameter is left blank, the cross-dock allocation logic will ignore inventory attributes. If the parameter is set to 'EXACT,' the LPNs inventory will have to match all the order detail inventory attribute values for a successful cross-dock allocation.

It is important to note that the existing 'xdock-mode' option "**LPN Nbr, single or multi sku xdock**" will be renamed to "**LPN Nbr, single, multi sku xdock facility**" as part of this effort. Clients will not have to change any configuration and the name will change automatically with the upgrade, retaining backward compatibility.

Perform SKU Based Distribute LPN

Some clients perform distribution (Put to Store) operations on LPNs that have many different SKUs. To facilitate this process, the RF Distribute LPN screen now has mode where users can scan the SKU that they want to distribute. Previously, the screen directed the user to distribute a specific SKU. If the new screen parameter 'distribute-lpn-mode' is set to "Item," users will be able to scan the specific SKU to be distributed. This is a convenient feature for clients that have little travel time in between consolidation locations and distribute LPNs with a high mix of SKUs.

Inventory History Consolidation for Pre-Packs with Host-Unaware Child SKUs

The Inventory History interface can now be generated at the parent level for pre-packs that have host-aware parent SKUs and host-unaware children. This functionality was already introduced to the Shipment Verification and Ship Load interfaces in version 7.0.1 and it is meant to be used by clients who have host systems that are only aware of the parent items even though their warehouses handle child items.

If the company parameter 'CONSOLIDATE_PREPACK_HOST_UNAWARE_CHILDREN' is enabled, the 'Generate Inventory History' script will consolidate host-unaware child items into parents based on the ratios configured in Item Pre-pack. Moreover, this script can now be configured by consultants or support through AIT with three new parameters to control the criteria for consolidating records with child items into parents:

- **Parameter -g:** Used to specify the Inventory History activity codes that the script will consolidate across. I.e. if activity codes 4 and 17 are specified, the script will consolidate records with host-unaware child items across these two codes.
- **Parameter --consolidation_activity_id=:** Used to specify the Inventory History activity code for the consolidated record. It must have a single value and it should be one of the codes configured in parameter –g.
- **Parameter –r:** Used to specify the Reason Codes that the script will consolidate across. If this parameter is not configured, the application will not consolidate records with different Reason Codes.

  Note: The script will not consolidate records with different Lock Codes.

Capturing Physical Trailer Number per LPN During Receiving

In Oracle Warehouse Management Cloud, one Load can have multiple Inbound Shipments, but an Inbound Shipment cannot be on multiple Loads (Trailers). Some clients require the ability to receive Inbound Shipments that are spread across multiple Trailers. In order to support this flow, the RF receiving screens (Receive IB Shipment and Receive IB Load) were enhanced to allow receiving Inbound Shipments (ASNs) across multiple Trailers, capturing the Trailer Number at the LPN level. If the parameter 'validate-trailer-on-load' is set to "Do not validate Trailer," the receiving screens will not validate the scanned Trailer Number against the one on the Inbound Shipment (Inbound Load) being received. The screens will save the scanned Trailer number field in the new 'Received Trailer Number' field at the LPN level.

To facilitate receiving Trailers that have multiple cartonized Inbound Shipments, the parameter 'different-shpmnt-per-lpn' was also introduced. Previously, the receiving screens assumed that all LPNs came from the same IB Shipment (or IB Load depending on the RF screen). When this new parameter is set to "Do not assume LPNs belong to same shipment," the screens will not assume that all LPNs come from the same IB Shipment (or Load). This will allow users to receive Trailers with multiple cartonized ASNs more efficiently as they will not have to segregate inventory by ASN.

Receiving and User Driven Putaway through Web UI

Over the next few releases, the Oracle Warehouse Management Cloud application will be enhanced to support an end-to-end flow (from Receiving to Shipping) from the Web User Interface. This will satisfy the need of clients who cannot execute their operations using RF devices due to various reasons, such as poor WiFi connectivity, building infrastructure that does not allow access points, product cannot have barcodes (fruits and vegetables).

In release 7.0.2, we adding support for Receiving and Putaway (Locate) from the Web UI:

- Web UI based Receiving is driven through IBShipmentView. Web UI Based Receiving allows to perform receiving of ASN which is non cartonised only. A new Button to perform non cartonised shipment receiving is introduced in the Inbound Shipment Header UI. User can select a shipment which is non cartonised and click on the button to perform receipt through UI. User is presented a new screen where the shipment details to be received against is displayed on the left hand pane and right hand pane provides opportunity for the user to enter the quantity to be received. Web UI based Receiving does support receiving items which are tracking batch numbers, expiry dates, serial numbers or inventory attributes is not supported currently.

- Web UI based Putaway is user-directed. From the 'Inbound LPN' UI screen, users can select one or more LPNs and click the 'Locate LPN' button to putaway/locate these LPNs. The screen displays a pop-up where users need to enter the location where they want to move the LPNs. At this point users can choose to perform location capacity checks (volume, quantity and LPNs) or not. This option allows locating LPNs to Reserve, Drop, Active, VAS and QC locations.

Loading and Shipping through Web UI

Besides supporting receiving and user-driven putaway operations through the Web UI as mentioned above, Oracle Warehouse Management Cloud supports loading Orders and/or Stops through the UI in version 7.0.2. This will reduce the dependency on an RF device to perform loading operations in benefit of those clients who cannot use these devices due to various reasons. The following changes were introduced to support loading from the UI:

- **Orders on Stop UI screen**: This new screen provides a summary of all the orders that belong to a particular Stop at the Order Header level. It is accessed from the 'Outbound Loads' UI screen and provides useful information, such as the percentage of the order that has been packed, loaded.
- **Load Order button**: Provides the ability to select and order in the new 'Orders on Stop' UI screen and load all the corresponding OBLPNs in 'Packed' status.
- **Load Stop button**: Provides the ability to select an OB Stop record from the existing 'OB Stop' screen and load all the corresponding OBLPNs in 'Packed' status.
- **Unload Order button**: Provides the ability to select and order in the new 'Orders on Stop' UI screen and unload all the corresponding OBLPNs in 'Loaded' status, provided the Outbound Load has not yet been closed.

Prevent Shipment of Changed Orders

Customers often change the items and/or quantities that they ordered. These changes become a logistical problem when the orders have already been allocated at a Distribution Center. To help address this problem, when some information about an order changes (SKUs, quantities, etc.), users can now interface a replacement order with a reference to the original order in the new 'Order Number To Replace' field. When this replacement order is created via interface, the application will enable the 'Shipping blocked' flag for the original (changed) order. This will prevent loading/shipping the items of the original order, provided it has not been yet shipped. If the original order was not allocated, it will be cancelled when the replacement order is created. The following screens were enhanced to prevent shipping orders that have the 'Shipping blocked' flag enabled:

- **RF Load OBLPN**: Prevents loading corresponding OBLPNs, Pallets and closing corresponding Stops, Loads. The screen will automatically de-assign OBLPNs for orders with the 'Shipping blocked' flag enabled from the corresponding load.
- **RF Assign to Load**: Prevents assigning corresponding OBLPNs, Pallets to OB Loads.
- **RF Ship OBLPN**: Prevents shipping corresponding OBLPNs, Pallets.
- **UI Outbound Loads**: Prevents closing, shipping corresponding Outbound Loads.
- **UI Parcel Manifest**: Prevents closing corresponding Manifests.

The RF Unload OBLPN screen was also enhanced to automatically de-assign OBLPNs that belong to orders with the 'Shipping blocked' flag enabled when they are scanned.

LDAP/ADFS Based User Authentication

The application's user login authentication functionality was enhanced to support authenticating a user against an LDAP or an Active Directory Federated Services (ADFS). Clients that want to use their own authentication services and manage passwords centrally are now able to do so. Users will be presented with Oracle Warehouse Management Cloud's login page but will be authenticated against the client's directory and not against the password in Oracle Warehouse Management Cloud. Users will still need to be created in Oracle Warehouse Management Cloud as the application needs to know information such as the user's default company, facility, role, and group. The existing built-in authentication mechanism will continue to be available.

Handle Cancellation of Orders As Part of Shipment Verification

Before version 7.0.2, the application cancelled order details that had the 'Required Container Number' field populated with the Inbound LPNs that were not received when the corresponding Inbound Shipment was verified, provided that the 'Shipment Number' order detail field was also populated. This behavior can now be controlled by the Shipment Type level flag: 'Unallocated order details to cancel on ASN Verify,' which has the following values:

- **With Matching Container and Shipment:** This is the default behavior. 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.
- **Do Not Cancel:** No unallocated order details are cancelled automatically upon Inbound Shipment verification.

This new Shipment Type flag is useful mainly for clients dealing with cross-dock orders that do not have the 'Shipment Number' order detail field populated.

Enhancements to the QC Process

The 7.0.1 update included enhancements to Inbound Quality Control (QC) functionality. Below are some more improvements for Inbound Quality Control process.

Random Marking of LPNs to be Received for QC

- Facility to randomly mark LPN's part of cartonized shipment for pushing to QC Area. From the Inbound Shipment UI screen, users must select the Shipment and select the 'Perform Inbound Check' button to determine LPNs to be pushed to QC Area Randomly.
- New Field is added to shipment type (Percent LPNs for Random QC Determination) where user can provide the value in terms of percentage. This depicts the number of LPN's part of shipment to be made eligible for QC irrespective of the item.
- When perform Inbound Check is selected for the shipment, system does determine the number of LPNs to be marked for QC based on the percentage provided on the shipment type. If number of LPN's to be marked for QC on the shipment type is not set, then system does determine the Number of LPN's to be marked for QC from appropriate Vendor QC Configuration. Number of LPN's to be marked for QC randomly will be per sku if Vendor QC Configuration is looked into.

- There will be a new flag on the shipment which will inform whether random marking of LPN's has been carried out. If the Random Selection of Cartonised Shipment for performing Inbound QC has been completed, change has been done to receiving to mark additional Inbound LPN's for QC.

Call RF QC from Receiving

- Ability to call the RF QC screen from the RF Receiving screens (Receive IB Shipment and Receive IB Load). The name of the RF QC screen needs to be entered in the 'next-screen-to-launch' parameter of the Receiving screen.

Additional Selection Criteria to Vendor QC Configuration

- The Vendor (Company table) custom fields were added to the list of filter criteria available in the Vendor QC Configuration. Clients can now use these fields to determine when the application will mark LPNs for Quality Control. For instance, they can send the Vendor's category. The RF Receiving screens will consider these new criteria when marking LPNs for QC.

Other Changes

- The QC Verification History UI screen will now have the name of the screen that was used to perform QC as well as the one that was used to accept the LPN.

File Encoding for Output Interfaces

Users can now configure the encoding of base output interfaces through the company parameter 'OUTPUT_FILE_ENCODING.' To retain backwards compatibility, the default encoding is "utf-8," but this value can be changed to "latin-1." The encoding will apply to both flat-file and XML interfaces. Before release 7.0.2, this configuration was available for input interfaces.

New Selection Criteria for Cycle Count Tasks

The current quantity, inventory attributes, expiry date and batch number fields of the Inventory table were added as an eligible Selection Criteria for Cycle Count tasks. Users can leverage this new criterion to control the creation of tasks when the Cycle Count template is run.

Ability to Modify the Quantity of LPNs with Multiple Inventory Records for the Same SKU

Before version 7.0.2, users could not modify the quantity of a specific LPN inventory record from the RF when the LPN had multiple attributes (batch, expiry date, inventory attributes) for the same item. In 7.0.2, the parameter 'modify_dtl_by_inventory' was added to the RF Modify LPN screen to allow this type of LPN modification. When this parameter is set to "Yes," the screen will prompt the user to scan the SKU that he/she wants to modify after he/she scans the LPN. Once the SKU is scanned, the RF will display the different inventory combinations for that item in the LPN. In other words, the screen will display the combination of attributes that are different for each inventory record. In this screen, the user will be able to change the quantity of that specific inventory record. The screen will also have a control key to let users navigate through the different inventory records for a particular SKU and another key to display more information about the item.

Input and Output Interface Changes

Input Interfaces

- Order Interface: The new field 'order_nbr_to_replace' field was added to Order Header.

- PO Interface: The new field ‘line_schedule_nbrs’ was added to PO Detail.
- New ‘User’ interface 'User' to create users in Oracle Warehouse Management Cloud.

Output Interfaces

- Inbound Shipment Verification Interface: Two new fields 'po_dtl_line_schedule_nbrs' and ‘rcvd_trailer_nbr’ were added.
- Outbound Load Interface: The field ‘rcvd_trailer_nbr’ field has been added.
- Inventory History Interface: Activity ’52-Audit adjustment’ populates the Order type on field ‘ref_value_3’
- Order Outbound Load interface: The ‘payment_method’ and ‘carrier_account_nbr’ fields are now populated.
- New ‘Wave Pick Info’ interface to send allocation information to external systems (The flat-file format was added in version 7.0.1)

For additional details about these interface changes, please review version 26.0 of the Oracle Warehouse Management Cloud Interface File Formats document.

4. Release 7.0.3

Enhancements to User Login Security

As a cloud application, security is a major factor. New features were added this release to provide more control and visibility to user login security.

- The default value of 'Password Life in Days' was changed to 365 days. **With the 7.0.3 update, users that have this set to a value greater than 365 or equal to 0 will be automatically changed to 365.** Note that in version 8.0 the default value will be changed to 60 days.
- Clients are able to set a maximum and a minimum value for 'Password Life in Days' at the Company level. The maximum cannot exceed 365 days and the minimum cannot be less than 1.
- Clients have the option to change the minimum number of characters for user passwords at the Company level. The default min number of characters is 6 to retain backwards compatibility, but clients can choose any number between 6 and 30.
- Clients also have the option to configure a max number of failed login attempts at the Company level. The default value for this field is 5 attempts and the min and max is 3 and 10, respectively. The user's account will be disabled when he/she exceeds the number of failed logins. At this point, company administrators will have to re-enable the account from the User UI screen.
- Clients can also configure the number of recent passwords that users cannot reuse. The default of this value is 3.
- Users cannot use the words 'password' and 'admin' as part of their passwords. Other existing password complexity rules continue to be enforced.
- Supervisors can enforce users to change their passwords the next time they log in using a flag at the User level.
- The User UI screen now shows the 'Create User,' 'Mod User,' 'Create Timestamp,' 'Mod Timestamp' to inform who and when created or modified users.
- The User UI screen displays the 'Last Login Timestamp' and the number of days since the user's last login.

Bulk Pick Distribution through Web UI

As part of our initiative to support an end-to-end operational flow from the UI, we introduced the 'Complete Bulk Pick' option in the Task UI screen to allow completing packing updates for the Bulk Pick Distribution (Internal Picking Tasks) flow directly from the UI. As mentioned in previous release notes, this will be useful for clients who can't conduct DC operations using RF devices because of multiple reasons, such as: poor Wi-Fi connectivity, handling products without barcodes, etc.

It is recommended that users follow these steps to use the 'Complete Bulk Pick' option appropriately:

- Run a Wave that generates Internal Picking Tasks. Notice that this requires configuring 'Consolidation Locations' for Destination Facilities as per current behavior.
- Print the new 'Bulk Pick Report' that is generated from the Wave Inquiry screen for the Wave that was run. This report generates one page per Task and has two segments. The first segment has the required information to complete the picks, such as the location/LPN, item, and quantity to pick. The second segment has the necessary information to complete the distribution, such as the destination facility, item and quantity to distribute.

- Execute the picks and distributions based on the information on the 'Bulk Pick Report,' writing down the quantities on the report's sheet.
- Use the quantities written down on the 'Bulk Pick Report' by the picker/packer to enter the packed quantities on the screen that is launched by the 'Complete Bulk Pick' button in the Task screen.

This option does not allow partial packing. Once the user enters 'Save,' the allocated quantities that were not picked will be shorted. Complete Bulk Pick option from UI does support over-packing and under-packing (entering more or less units than the allocated quantity) depending on the new Item level 'Packing tolerance percentage.' For example, if the allocated quantity was 100 and the item's 'Packing tolerance percentage' is 10, the user will be able to pack up to 110 units. If the user packs more than 90 units, this will not be considered a short.

Allocate Components with Specific Batches, Inventory Attributes and/or Decimal Quantities for Assembly Work Orders

Clients in multiple industries, especially in the chemical and pharmaceutical ones, need to allocate components with specific batch numbers and/or inventory attribute values. To support this requirement, we made the following changes in release 7.0.3:

- Ability to create Work Order Component details with specific batch numbers and/or inventory attributes from the Work Order UI screen or the Work Order interface. Interfacing Work Order Components is only supported through the flat-file hierarchical (as H3 records) or the XML formats.
- Pre-pack ratios now support the Item conversion factor. This means that pre-packs can now be created with decimal ratios as long as the conversion factor for the corresponding child (component) item is configured with a conversion factor greater than 1. This is important for parents (kits) that are made up of components in fractional quantities, i.e. 0.5 liters.
- The Item Pre-pack interface is now supported in XML format.
- Work Order Wave supports allocating component with batch, inventory attributes and/or components with conversion factor greater than 1.

Assigning Batch Numbers, Expiration Dates and/or Inventory Attributes During the Assembly Process

The RF Process Work Order screen was enhanced to prompt for batch and/or inventory attributes for the Kit when completing the Assembly process. The screen prompts the user to enter a batch number if the 'Require batch number' flag is enabled for the corresponding Kit item. Also, the screen prompts for an expiration date if the 'Product life' for the item is greater than 0. If the item tracks both batch and expiry, the screen only prompts for both values if the batch does not already exist in 'Batch Management.' Similarly, the screen prompts the user to enter inventory attribute values if the 'Track Inventory Attribute' field is set to a value other than 'Not Required' for the corresponding Kit item.

It's worth mentioning that prompting for these values is supported in all modes of the 'kit-item-barcode-scan' parameter. If this parameter is set to 'Scan each SKU,' the screen will prompt for the relevant values when completing each unit of the Kit item.

Locking or Unlocking LPNs from the RF

The new RF Lock Unlock Container was developed to let users add/remove locks from LPNs. The screen allows locking both Inbound and Outbound LPNs as long as they are in a valid status: Quality Check, In Receiving, Received, Located, In Picking, Picked, In Packing or Packed. Partly Allocated and

Allocated LPNs can only be locked if the Company Parameter 'ALLOW_LOCKING_OF_ALLOCATED_LPNS' is set to "Yes."

When a valid LPN is scanned, the screen prompts user to add or remove a lock code. If the user chooses to add a lock code, the screen displays a list of all the eligible lock codes for the user to add. If the option chooses is to remove a lock code, the screen displays a list of the lock codes associated with the LPN so that user can select the one that needs to be removed.

As part of this initiative, the 'Ctrl-L: Lock-Unlock LPN' option is added to the RF LPN Inquiry screen. When user selects this option, RF LPN Inquiry takes to the screen where user has the choice to add or remove a lock code. The rest of the screen flow is as mentioned in the previous paragraph. Additionally, the RF LPN Inquiry screen now displays the 'Lock Count' or the number of locks that the scanned LPN currently has.

New Search Criteria in Task UI Screen

The following Search Criteria was added to the 'Task' UI screen. For the criteria mentioned below, the screen will display all tasks that have at least one pick for the Search value(s) entered:

- Order Number
- Destination Facility Code
- Destination Facility Name
- Ship-to Facility Code
- Ship-to Facility Name
- Customer Number
- Customer Name
- Ship-to Name
- Item Code

New Email Alert to Inform Inbound Shipments that Need Verification

Oracle Warehouse Management Cloud resources will now be able to configure a scheduled job to send email alerts to remind users that they need to verify Inbound Shipments. This scheduled job is configurable through AIT. 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. Also, the email addresses to which the alert needs to be sent can be configured in the scheduled job.

Enhancements to Outbound Sort Process

In release 7.0.3, multiple enhancements were done to the RF Outbound Sort screen:

- The screen now supports sorting OBLPNs in 'Picked' status based on the new screen parameter 'allow-picked-status-only'. If this parameter is set to "Yes," the screen will only allow sorting OBLPNs in 'Picked' status.
- Users now have the option to sort OBLPNs onto Locations instead of Pallets by setting the 'sort-to-pallet' screen parameter to "No."
- Since several Distribution Centers do not have multiple Sort Zones, users will be able to configure a default Sort Zone in the new screen parameter 'default-sort-zone.' If a default Sort Zone is configured, the RF screen will just display the zone and it won't allow users to change it.

- After the LPN is scanned, the RF screen displays the LPN's Company Code. This will help 3PLs identify the client to which that inventory belongs and it's useful in case different clients are sorted on different locations.

Print Price Labels from the Inbound Shipment UI Screen

The Inbound Shipment UI screen now has the ability to print Price labels both at the header and detail levels. Users can select an Inbound Shipment or an Inbound Shipment Detail and click the 'Print Price Labels' button to print the corresponding price labels. This button displays a pop-up that allows users to select whether they want to use the Shipped or Received quantity to determine the number of labels, the number of copies to print per unit, the printer and the Destination Company.

Display Order Type in RF Repack Screen

The new screen parameter 'extra-info-to-display' can be set to "Order type" in RF Repack, so that the screen displays the Order Type that corresponds to the inventory in scanned 'From LPN.' If the 'From LPN' only has inventory for one Order Type, the screen will display this value as soon as the LPN is scanned. If the 'From LPN' has inventory for multiple Order Types, the screen will display this value after individual SKUs are scanned.

Support Canada Post and Additional UPS Services through Connectship

The Canada Post and UPS Ship Vias (Service Levels) mentioned below are now supported to ship parcels when the Integration Type is ConnectShip:

- UPS Express for shipments originating in Canada
- UPS Express Early AM for shipments originating in Canada to Canada and the USA
- Canada Post – Regular Parcel
- Canada Post – Xpresspost
- Canada Post – Expedited

As part of this effort, we also added support for Canada Post's 'Paper Manifest' and UPS' 'Pickup Summary Label' through ConnectShip.

Ability to Print Multiple Copies of the Same OBLPN Label

Users are now able to print multiple copies of 'Shipping,' 'OB Container' and 'OB Content' labels from the OBLPN UI screen. When users click the button to print the corresponding label, the UI screen displays a pop-up that has a 'Number of copies' field where users can enter the number of labels they want to print for each OBLPN. The same pop-up allows users to select a Printer.

Flow-Through LPN Allocation with RF Locate LPN/Pallet

Clients may have LPNs with many different SKUs. Allocating these LPNs for flow-through with the RF Distribute LPN screen can be challenging as it takes a considerable amount of time to complete allocations for a large number of SKUs and the user has to wait for these to be completed before user can execute the distribution. Thus, the RF Locate LPN/Pallet screen was enhanced to allocate LPNs for flow-through (distribution) as soon as the location is scanned if the parameter 'dist-alloc-on-loc-scan' is set to "Yes." Note that RF Locate LPN/Pallet does not prompt users to perform the distribution. The screen just allocates the LPN so that it can be distributed later. By the time a second user scans the LPN to execute the distribution, the allocations should have already completed, reducing the overall delay in the process.

As part of this change, the following parameters were added to the RF Locate LPN/Pallet screen to control distribution allocations:

- dist-qty-uom: Allows selecting the allocation UOM, i.e. Units, Packs, Cases and Cases then packs.
- dist-restrict-part-alloc: Controls whether partial LPN allocations are allowed or not.
- dist-alloc-priority: Allows allocating order details with matching PO number first, if any.

Expose Item Image to Web Reports

Users can now generate reports with Item images using the Web Reports tool. The Load Item Image function needs to be used in the report to display the image.

New Inbound Sorting Criteria

The LPN Lock Code and Item Brand Code are now eligible criteria for Inbound Sorting configuration.

Enhancements to Route Instruction Configuration

MHE Route Instruction Configuration screen is used for determination of diverts has been enhanced with additional columns and additional functions. MHE route instruction configuration table can be used for performing the routing of the LPN's to appropriate destination divert lanes based on the rules configured.

Additional Selection Criteria columns introduced are

- Ship_Via
- Destination Facility Code
- Putaway Type of the Item
- Ship to Facility Code

Additional Functions introduced are

- Get Next Pick Zone: This can be used to determine the divert lane while performing zone picking.
- Number of Orders on the Tote: This function shall return the total number of orders on the tote
- Is Order on Single Tote: This function shall return, true if there is only one order picked on the tote.

Output Interface Configuration will now have an additional entry called Route Instruction supported with single-line format for communicating the route instruction information to MHE systems. Actual generation of the file and mapping will be a custom effort.

Input and Output Interface Changes

Input Interfaces

> **Note:** The new interface fields are optional. Input interfaces are backwards compatible

- Item interface: The new field 'packing_tolerance_percent' field was added to Item.

- Item Pre-pack: The ‘child_units’ and ‘pre_pack_total_units’ fields are now decimal 10.3 (accept 10 integer and 3 decimal values)
- Work Order: The Work Order hierarchical flat-file and XML interfaces now allow interfacing Components with specific batch numbers and/or inventory attributes.

Output Interfaces

Note: Output Interface formats from previous releases are supported using the company/facility parameters ‘OUTPUT_LGF_FINFO’ (the application has a parameter for each base Output Interface). To change the format of the interface to that of a previous release, set the value to ‘lgf’ followed by the release number, i.e. ‘lgf7.0.2.’ If the value of these parameters was already set to that of a specific release, there is no need to change it unless you require additional fields from a later release.

- Item out: The new field ‘packing_tolerance_percent’ field was added to Item.

For additional details about these interface changes, please review version 27.0 of the Oracle Warehouse Management Cloud Interface File Formats document.