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NetSuite WMS Upgrade Guide

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NetSuite WMS Upgrade Overview

This guide is intended for administrators to upgrade existing NetSuite WMS accounts to use the new Warehouse Management feature and capabilities available in NetSuite WMS Version 2019.2 and later. To ensure that you have the current version of this Upgrade Guide, log in to NetSuite, and then use this link to access the guide: NetSuite WMS Upgrade Guide.

This guide describes the required and optional setup procedures, which include installing the SCM Mobile SuiteApp and updating the Oracle NetSuite WMS SuiteApp, for an existing NetSuite WMS account. To successfully upgrade your existing NetSuite WMS account, you must use the Administrator and Warehouse roles to complete the procedures in the following topics:

1. NetSuite WMS SuiteApps
2. Enabling the Warehouse Management Feature
3. Activating the Enable Warehouse Management System Rule
4. Finding Pending Outbound Open Tasks
5. Migrating Existing Data to New Records

Watch this video on the basic upgrade procedures:

Upgrading to NetSuite WMS 2020.1

> **Note:** You can follow the instructions in the video to transition to the latest NetSuite WMS version and its SuiteApps. To view the latest SuiteApp IDs, see NetSuite WMS SuiteApps.

After you complete the upgrade, you can perform further configuration or customization tasks described in the following topics:

- Assigning Warehouse Management Roles and Permissions
- Warehouse Management Records
  - You can update existing records, like your warehouse locations to use or not use bins. See Updating Existing Warehouse Management Records.
  - You can create new records provided in NetSuite WMS version 2019.2 and later. See New Warehouse Management Records.
- Setting Warehouse Management Preferences
- Defining Pick Strategies for Released Orders
- Mobile Devices
- Warehouse Management System Rules

For detailed instructions on performing inbound, inventory, and outbound tasks, see the help topic Warehouse Management.

NetSuite WMS SuiteApps

Upgrading to the new Warehouse Management feature and capabilities requires the following SuiteApps:

- **Oracle NetSuite WMS** - Contains the business logic that drives your warehouse processes. It also provides the migration script for your existing data. For more information about the migration script, see Migrating Existing Data to New Records.

  > **Important:** During your scheduled upgrade to an upcoming NetSuite version, the Oracle NetSuite WMS SuiteApp is also upgraded automatically to the same version. Before you begin the transition to the new WMS capabilities, make sure that you have the current version of this SuiteApp. To view the SuiteApp, you can go to Customization > SuiteBundler > Search & Install Bundles > List.

- **SCM Mobile** - Contains the mobile device application that your warehouse operators can use to process transactions on your warehouse floor.

  This SuiteApp is shared with existing accounts that use NetSuite WMS.

Installing the SCM Mobile SuiteApp

To begin the upgrade process, you must install the SCM Mobile SuiteApp that is shared on your account.

To install the SCM Mobile SuiteApp:

1. Using the Administrator role, go to Customization > SuiteBundler > Search & Install Bundles.
2. On the Search & Install Bundles page, in the **Keywords** field, enter either of the following bundle details:
   - Name: **SCM Mobile**
   - Bundle ID: **445345**
3. Click **Search**.
4. From the search results, click **SCM Mobile** for bundle ID 445345.

   > **Note:** If you cannot find this bundle, you may contact NetSuite Customer Support.

5. On the Bundle Details page, click **Install**.
6. If asked to acknowledge the notice about receiving future bundle updates, you can click **OK** to confirm and proceed.
7. On the Preview Bundle Install page, click **Install Bundle**.

Bundle installations may take a few minutes to complete. You can continue using NetSuite while the bundle is installing. If you want to view the status of your bundle installation, go to Customization > SuiteBundler > Search & Install Bundles > List.

Updating the Oracle NetSuite WMS SuiteApp

After you have installed the SCM Mobile SuiteApp, you must update the Oracle NetSuite WMS bundle. You may contact NetSuite Customer Support to request for a bundle update for this SuiteApp. It may take about 24 to 48 hours to complete the bundle update.

To view the updated Oracle NetSuite WMS SuiteApp, go to Customization > SuiteBundler > Search & Install Bundles > List. From the list of bundles installed on your account, look for the bundle that has the following details:

- Name: **Oracle NetSuite WMS**
- Bundle ID: **445891**

Enabling the Warehouse Management Feature

This section describes the Warehouse Management feature, which you need to enable on your NetSuite account to use the new capabilities in NetSuite WMS Version 2019.2 and later. Your account should already be set up for use with an existing version of NetSuite WMS. Also, you must have the two NetSuite WMS SuiteApps already installed on your account. For more information about the SuiteApps, see NetSuite WMS SuiteApps.

The Warehouse Management feature provides the capabilities for releasing orders to the warehouse, label printing from your mobile device, and other enhancements for inbound, inventory, and outbound processing. See the help topic NetSuite WMS Overview.

Before you enable the Warehouse Management feature, your NetSuite WMS account should already have the following inventory management features enabled:

- Multiple Units of Measure
- Multi-Location Inventory
- Advanced Shipping
- Pick, Pack, and Ship
- Inventory
- Advanced Inventory Management
- Bin Management
- Advanced Bin/Numbered Inventory Management
- Custom Records
- Advanced PDF/HTML Templates
- Client SuiteScript
- Server SuiteScript

Important: Note the additional requirements and conditions when upgrading to NetSuite WMS Version 2019.2 and later:

- After you enable the Warehouse Management feature, you must activate the Enable Warehouse Management system rule. For instructions, see Activating the Enable Warehouse Management System Rule.
- Make sure that you set up your new or updated login page URL on your mobile device. Otherwise, you might see a blank page on your mobile device screen. See the help topic Accessing the Mobile Device Login Page URL.
- Before you use the new capability for releasing orders to the warehouse, you must ensure that your account has no open orders with fulfillment in progress. For more information, see Finding Pending Outbound Open Tasks.

To enable the Warehouse Management feature:

1. Log in to your NetSuite account using the Administrator role.
2. Go to Setup > Company > Enable Features.
3. On the **Inventory & Items** subtab, under the Inventory heading, check the **Warehouse Management** box.

   > **Note:** If the Warehouse Management box does not appear, contact NetSuite Customer Support to have the feature provisioned on your account.

4. (Optional) Enable features that suit your business processes. See Enabling Other Inventory Management Features.
5. Click **Save**.

Enabling Other Inventory Management Features

The following features may need to be enabled, depending on your business processes:

- Assembly Items
- Work Orders
- Serialized Inventory
- Lot Tracking
- Inbound Shipment Management

  > **Note:** To receive inbound shipment orders for lot-numbered and serialized items, items that use bins, or items with inventory status, you must also enable the Inventory Detail on Inbound Shipment feature. Before you can enable this feature, you must contact NetSuite Customer Support to provision this feature for your NetSuite WMS account. See the help topic Inventory Details on an Inbound Shipment. For more information about requirements and using Inbound Shipment, see the help topic Receiving Inbound Shipment Orders.

- Inventory Status
- Inventory Count
- Advanced Item Location Configuration

  > **Note:** Before you enable this feature, note the following item record changes:
  >
  > - You can enable this feature to access the Item Location Configuration record from the item record. If you want to set up warehouse locations that do not use bins, you can set the item's pick sequence number on the Item Location Configuration record. For more information about pick sequence numbers, see the help topic Item Sorting.
  > - For your existing item records, you can access the calculated inventory count fields on the Item Location Configuration record, instead of directly on the Locations subtab. See the help topics Creating Items for NetSuite WMS, Creating Calculated Inventory Counts, or Locations.

- Intercompany Cross-Subsidiary Fulfillment
- Bar Coding and Item Labels

Troubleshooting WMS Upgrade Issues

This section describes the procedures and guidelines that enable you to resolve specific upgrade issues.

Issue: An unexpected error has occurred while trying to open the mobile application. For more details, view the Mobile - Generate App Config script logs.

This error message is displayed when the mobile application cannot be opened due to the following issues:

Scenario 1: The Warehouse Management feature is enabled, but the Oracle NetSuite WMS bundle is not updated. If the Oracle NetSuite WMS bundle is not updated, the scripts that set up the mobile application cannot be deployed.

Scenario 2: The scripts that set up the mobile application are still being executed.

To resolve these issues, you can do the following using the Administrator role:

1. Verify that you have installed the latest SCM Mobile bundle and updated the Oracle NetSuite WMS bundle to the latest version. To install or update the bundles, see NetSuite WMS SuiteApps.

   Tip: If you have updated the Oracle NetSuite WMS bundle before accessing the mobile application, you can skip to step 4.

2. Verify that you have activated the Enable Warehouse Management system rule. To open the system rule page, in the global **Search** field, enter **Enable Warehouse Management**, and then click the search result. On the system rule page, the rule value must be set to **Y**.

   For more information, see Activating the Enable Warehouse Management System Rule.

3. Try to trigger the mobile application setup scripts by editing the registered application page for NSWMS. To access this page, in the global **Search** field, enter **Mobile - Registered Application**, and then click the search result for Page: Mobile – Registered Application. On the Mobile - Registered Applications List, click **Edit** next to the NSWMS application, and then **Save** it without changing the application details.

   NetSuite WMS submits scheduled scripts for processing to setup the mobile application in your account. See the list of scripts on the table in step 4.

4. Before you access the mobile application, make sure that all the setup scheduled scripts are completed. To view the runtime status of the scripts, go to Customization > Scripting > Scheduled Script Status. Check the status for the scripts listed in the following table:

Script Name	Deployment ID
Mobile - Scheduled Generate App Config	customdeploy_mobile_ss_ondemand_app_conf
Mobile – Sequence Jobs Account Setup	customdeploy_mobile_ss_seq_generateapp
Mobile – Sequence Jobs Account Setup	customdeploy_mobile_ss_seq_upgrade
Mobile – Sequence Jobs Account Setup	customdeploy_mobile_ss_seq_indpage_menu
Mobile – Sequence Jobs Account Setup	customdeploy_mobile_ss_seq_sync_process
Mobile – Sequence Jobs Account Setup	customdeploy_mobile_ss_seq_sync_labels

5. After all the setup scheduled scripts have been completed, you can access the mobile application by going to Setup > Custom > Mobile - App.

   For more information about mobile device access, see Mobile Devices.

   For more information about upgrading to the new WMS capabilities, see NetSuite WMS Upgrade Overview.

Assigning Warehouse Management Roles and Permissions

To access records and perform warehouse processing or setup tasks, use the following standard or custom roles:

- **Administrator** - Use this standard role to enable features, install the SuiteApps, and create or manage records for NetSuite WMS.
- **Mobile Administrator** - Without all the standard administrator permissions, use this custom role to customize and configure mobile processes and mobile printing.
- **Web Services Admin** - This custom role enables you to access and use the NSWMS Printer Driver Application. See the help topic NetSuite WMS Shipping Integration Setup.
- **WMS Warehouse Manager** – Use this custom role to perform certain setup procedures for mobile processes, such as activating system rules and creating item aliases or cycle count plans. You can also use this role to create records for Warehouse Management.

  The WMS Warehouse Manager role has access to the inbound, inventory, and outbound processing tasks on mobile devices. Specific permissions within the role also enable you to perform related tasks on the NetSuite user interface, such as pick task reversals and completing inventory counts.

  Warehouse Management provides the following specialized roles for warehouse managers:

  - **WMS Inbound Manager** - for inbound processing records and tasks only
  - **WMS Outbound Manager** - for outbound processing records and tasks only
- **WMS Mobile Operator** – Use this custom role to perform all the warehouse processing tasks available in mobile devices.

  Warehouse Management provides the following specialized roles for operators:

  - **WMS Inbound Operator** - for inbound processing tasks only
  - **WMS Outbound Operator** - for outbound processing tasks only

For more information, see the help topic Warehouse Management Roles or Setting Up Roles for Warehouse Management.

Warehouse Management Permissions

The following tables contain the list of standard NetSuite and WMS permissions for inbound, inventory, and outbound processing:

- Inbound Processing Permissions
- Inventory Processing Permissions
- Outbound Processing Permissions

Use these tables as a guide when you want to manually add WMS permissions to your custom roles. The permissions allow roles to perform WMS tasks on both the NetSuite user interface and on a mobile device.

Add these permissions based on your business requirements. For example, if you do not process work orders in your warehouse, you do not need to assign the Work Order permission. If you want your custom role to perform inbound and outbound processing tasks, you can combine the permissions listed in their corresponding tables.

To assign permissions, you can edit your custom role by going to Setup > Users/Roles > User Management > Manage Roles. On the Role page, you can set each permission and access level on the

Permissions subtab. All minimum access levels for WMS permissions are set to **Full**, unless otherwise indicated.

For information about NetSuite permissions, view the following topics:

- To assign permissions, see the help topic Setting Permissions.
- For more information about levels, see the help topic Access Levels for Permissions.
- For the complete list of NetSuite permissions, see the help topic Permissions Documentation.

Inbound Processing Permissions

Inbound processing permissions enable the following tasks:

- Receiving purchase orders, transfer orders, and customer returns
- Posting of item receipts
- Bin putaway and cart moves
- Reversal of item receipt transactions

The following roles are preset with these permissions: WMS Inbound Manager, WMS Inbound Operator, and WMS Warehouse Manager.

Transactions	Reports	Lists	Setup	Custom Record
Access Payment Audit Log (View level)	Inventory	Accounts (View level)	(Optional for custom roles) Accounting Preferences	WMS Open Task
Adjust Inventory	SuiteAnalytics Workbook	Bins	Bulk Manage Roles	WMS Process Status Flag
Audit Trail (View level)		Custom Record Entries	Custom Entry Forms	WMS Putaway Strategies
Bin Putaway Worksheet		Customer Profile (View level)	Custom Lists	WMS System Rules
Bin Transfer		Customers (View level)	Custom Record Types	WMS Task Type
Find Transaction		Departments (View level)	Custom Transaction Fields	
Fulfill Orders		Documents and Files	Custom Transaction Forms	
Inventory Status Change		Employee Record	Publish Dashboards	
Invoice		Employees (View level)	SuiteScript (View level)	
Item Fulfillment		Inventory Status	SuiteScript Scheduling	
Item Receipt		Item Process Family		
Purchase Order		Item Process Group		
Receive Order		Item Templates		
Receive Returns		Item/Category Layouts		

Transactions	Reports	Lists	Setup	Custom Record
Return Auth. Approval		Items		
Return Authorization		Locations		
Transfer Order		Perform Search		
Transfer Order Approval		Record Custom Field		
		Tax Schedules		
		Units		
		Vendors (View level)		
		Zone		
		Pick Task (View level)		

Inventory Processing Permissions

Inventory processing permissions enable the following tasks:

- Inventory search, creation, transfer
- Inventory cycle counts and replenishment
- Bin transfer
- Picking and building assembly items for work orders

The WMS Warehouse Manager role is preset with these permissions.

Transactions	Reports	Lists	Setup	Custom Record
Access Payment Audit Log (View level)	Inventory	Accounts (View level)	(Optional for custom roles) Accounting Preferences	WMS Open Task
Adjust Inventory	SuiteAnalytics Workbook	Bins	Bulk Manage Roles	WMS Pick Strategies
Audit Trail (View level)		Custom Record Entries	Custom Entry Forms	WMS Putaway Strategies
Bin Transfer		Documents and Files	Custom Lists	WMS Task Type
Count Inventory		Employee Record	Custom Record Types	
Create Inventory Counts		Employees (View level)	Custom Transaction Fields	
Find Transaction		Inventory Status	Custom Transaction Forms	
Inventory Status Change		Item Process Family	Publish Dashboards	
Invoice		Item Process Group	SuiteScript (View level)	

Transactions	Reports	Lists	Setup	Custom Record
Item Receipt		Item Templates		
Transfer Inventory		Items		
Work Order		Locations		
		Perform Search		
		Record Custom Field		
		Tax Schedules		
		Units		
		Vendors (View level)		
		Zone		

Outbound Processing Permissions

Outbound processing permissions enable the following tasks:

- Mobile picking of sales and transfer orders
- Pick task reversals
- Packing and shipping of orders

The following roles are preset with these permissions: WMS Outbound Manager, WMS Outbound Operator, WMS Inbound Operator, and WMS Warehouse Manager.

Transactions	Reports	Lists	Setup	Custom Record
Access Payment Audit Log (View level)	Inventory	Accounts (View level)	(Optional for custom roles) Accounting Preferences	WMS Open Task
Adjust Inventory	Sales Order Fulfillment Reports	Bins	Bulk Manage Roles	WMS Pick Strategies
Audit Trail (View level)	Sales Order Reports	Custom Record Entries	Custom Entry Forms	WMS System Rules
Count Inventory	Sales Order Transaction Report	Customers (View level)	Custom Lists	WMS Task Type
Find Transaction	SuiteAnalytics Workbook	Departments (View level)	Custom Record Types	
Fulfill Orders		Documents and Files	Custom Transaction Fields	
Inventory Status Change		Employee Record	Custom Transaction Forms	
Invoice		Employees (View level)	SuiteScript (View level)	

Transactions	Reports	Lists	Setup	Custom Record
Item Fulfillment		Inventory Status	SuiteScript Scheduling	
Sales Order		Item Process Family		
Sales Order Approval		Item Process Group		
Transfer Order		Item Templates		
Transfer Order Approval		Item/Category Layouts		
Wave		Items		
		Locations		
		Perform Search		
		Pick Strategy		
		Pick Task		
		Shipping Items		
		Tax Schedules		
		Units		
		Vendors (View level)		
		Zone		

Warehouse Management Records

Your NetSuite WMS account should have the following records already created:

- Warehouse Locations
- Warehouse Zones
- Bin Locations
- Item Records
- Item Aliases
- Inventory Statuses
- Carrier Services Levels

For more information about these records, see the Warehouse Management Records and Templates.

You should update some of these records for use with NetSuite WMS Version 2019.2 and later. See the help topic Updating Existing Warehouse Management Records.

To set up GS1 bar codes, you must create new item alias records on which you can map the GTIN-14 to an item. See Creating Item Aliases for GS1 Bar Codes or Setting Up Bar Code Scanning for Mobile Devices.

To customize NetSuite WMS templates and forms according to your business needs, see the following topics:

- Creating Custom Wave Criteria Templates
- Creating a Custom Pick Ticket Saved Search
- Creating Custom Advanced Templates for Pick Tickets
- Creating Custom Wave Forms

Updating Existing Warehouse Management Records

When you upgrade to the new NetSuite WMS version, you might need to update existing warehouse management records, depending on your business processes.

Finding Pending Outbound Open Tasks

Before you can use the new picking features of the new NetSuite WMS version, you must first complete all in-progress outbound orders in your account. The new version uses new Pick Task records to drive fulfillments, in place of open tasks of types PICK.

You must ensure you close all outbound Open Tasks, as follows:

- Open tasks with Picking Completed status should be packed and shipped.
- Open tasks with Packing Complete status should be shipped.

To find pending outbound open tasks:

1. In the search field, type **WMS Open Task**.
2. From the search results, click **Page: WMS Open Task**.
3. At the top-right corner of the page, click **Search**.
4. On the WMS Open Task Search page, click the **Use Advanced Search** box.

   The WMS Open Task Search saved search page appears.
5. On the **Criteria** subtab, add the following filters:

   > **Tip:** To define a filter, select the filter name, and then on the popup window, select the filter settings. Click **Add** to save each filter.

Filter Name	Filter Settings
Task Type	any of: PICK
WMS Status Flag	any of: Packing Complete Picking Completed
Order # (Custom) Fields	Type: Sales Order Transfer Order
Order # (Custom) Fields	Main Line: Yes
Order # (Custom) Fields	Status: any of Sales Order:Pending Billing/Partially Fulfilled Sales Order:Pending Fulfillment Sales Order:Partially Fulfilled Transfer Order:Partially Fulfilled Transfer Order:Pending Fulfillment Transfer Order:Pending Receipt/Partially Fulfilled

6. Click **Submit**.

   On the WMS Open Task Search: Results page, you can view the list of open tasks associated with the orders that you must process and close.

Migrating Existing Data to New Records

When you upgrade to the new NetSuite WMS version, you need to migrate existing data to new records. NetSuite WMS provides the migration script that automatically maps existing records and fields to the appropriate new records.

After you have completed the procedures for installing SuiteApps, enabling features, and closing open orders, you must run the migration script.

To migrate existing data to new records:

1. Using the Warehouse role, go to Setup > Miscellaneous > Migration Script.
2. Click **Migrate WMS Records**.

The following table outlines the migrated data.

Migrated From		Migrated To	
Record	**Field**	**Field**	**Record**
WMS Zone (Setup > Zone > Zone)	Name	Name	Zone Lists > Supply Chain > Zone
Item Family (Setup > Items > Item Family)	Name	Name	Item Process Family Lists > Supply Chain > Item Process Family
Item Group (Setup > Items > Item Family)	Name	Name	Item Process Group Lists > Supply Chain > Item Process Group
WMS Bin (Setup > Site > Create Bins)	Bin Number	Bin Number	Bin Lists > Accounting > Bins
	Location	Location	
	Memo	Memo	
	Description	Description	
	WMS Zone	Zone	
	WMS Bin Location Type	Type*	
	WMS Stage Direction	Type*	
	WMS Pick Seq No	Sequence Number	
WMS Pick Strategies (Setup > Warehouse > Pick Strategies)	Name	Name	Pick Strategy Lists > Supply Chain > Pick Strategy
	Sequence	Sequence Number	
	Location	Location	
	Item Family	Item Process Family	
	Item Group	Item Process Group	
	Item	Item	
	ABC Velocity	Item Classification	
	Units	Units	
	Order Type	Order Type	
	Zone	Pick Zones	
WMS Order Type (Setup > Warehouse > WMS Order Type)	Name	Name	Order Type Setup > Accounting > Accounting Lists > New > Order Type
Warehouse Location (Setup > Site > Warehouse Site)	WMS Make WH Site	Use Warehouse Management	Location Setup > Company > Classifications > Locations

Migrated From		Migrated To	
Record	Field	Field	Record
* For bin records, the migration of your existing settings to the Type field will correspond to the valid combinations: ■ **WIP** type: **WIP** bin location type & **Out** stage direction ■ **Inbound Staging** type: **Stage** bin location type & **In** stage direction ■ **Storage** type: **Storage** bin location type & **In** or **Out** stage direction For existing bin records with none of these settings, NetSuite WMS assigns the default **None** type.			

For other changes or updates, see the following topics:

- Setting Warehouse Management Preferences
- Warehouse Management System Rules
- Setting Up Bar Code Scanning for Mobile Devices

Updating Warehouse Locations that Use and Do Not Use Bins

The new feature for order release requires that you check the Use Warehouse Management box.

When creating a warehouse location record, you can set it to use or not use bins.

- For locations that use bins, items follow the standard bin process flow for creating waves and mobile processing tasks. You can create zones for these locations and associate both the location and zone with a bin. For more information about warehouse zones, see the help topic Creating Zones.
- For locations that do not use bins, you cannot process bin-related tasks, such as bin transfers, putaway, and replenishment. You can associate these locations with item stock locations. For information about stock locations, see Creating Item Stock Locations.
- You can associate locations with items that use and do not use bins. However, nonbin items for locations that use bins cannot be released in a wave transaction. Also, locations that do not use bins always follow the standard nonbin process flow regardless of the Use Bins setting of the item. See the help topic Creating Items for NetSuite WMS.

To update settings on the location record:

1. Using the Warehouse role, go to Setup > Site > Warehouse Site.
2. Click **Edit** next to your warehouse location or click **New Location** to create a new one.
3. On the Location page, do the following:
   - If you use bins in this location, check the **Use Bins** box.
   - Check the **Use Warehouse Management** box.

   > **Note:** When you run the migration script, the Use Warehouse Management box is checked automatically on your existing location records. For more information, see the table in Migrating Existing Data to New Records.

4. Click **Save**.

Setting the Rotation Type on Lot Item Records

On lot item records, set the new Rotation Type field to either of the following inventory rotation types:

- **FEFO** - First Expired, First Out
- **LEFO** - Last Expired, First Out

When you release orders to the warehouse, your inventory rotation setting affects the bin sorting process that determines the recommended bin. For more information, see the help topic Recommended Bin Sorting.

By default, both existing and new lot item records are set to the FEFO rotation type. To update the rotation type setting, edit your lot item record by going to Setup > Items > Items. In the **Rotation Type** field, select one of the two options: **FEFO** or **LEFO**. For detailed instructions, see the help topic Creating Items for NetSuite WMS.

Setting the New Fields and Bin Types on Existing Bin Records

The new feature for order release adds the Sequence Number and Zone fields to the bin record. It also provides new options for the Type field. For warehouses that uses bins, you can set the values in these fields on your existing bin records. The migration script automatically sets the value of the Type field based on your existing settings for the WMS Bin Location Type and WMS Stage Direction fields. For details about data migration, see the table in Migrating Existing Data to New Records.

When you release orders to a warehouse that uses bins, NetSuite WMS sorts bins by type and sequence number to determine the recommended bin for picking. For more information, see the help topic Recommended Bin Sorting.

To set the new fields and bin types on existing bin records:

1. Using the Warehouse role, go to Setup > Site > Create Bins.
2. From the list of bins, click **Edit** next to the bin record you want to update.
3. On the Bin page, set values in the following fields:
   - **Sequence Number** - Enter the sequence number for the bin.
   - **Zone** - Select the warehouse zone you want to associate with this bin.

     This zone is used as a filter for pick strategies. The value in the WMS Zone field is used for putaway strategies. See the help topic Warehouse Management Strategies.
   - **Bin Type** - Select a type from the list:
     - **None** - default bin type
     - **Inbound Staging** - stores received items for putaway
     - **Outbound Staging** - stores picked and staged items for shipment
     - **Picking** - stores putaway items for picking and fulfillment
     - **Storage** - stores putaway items prior to picking, moving, or transferring out of the warehouse
     - **WIP** - stores the picked assembly items for assembly processing
4. Click **Save**.

For information about creating bin records, see the help topic Creating Bin Locations or Carts.

Renamed Records for UCC Code Generation

As of NetSuite WMS Version 2021.2, the records used in UCC Code Generation have been renamed and some fields have been deprecated. The deprecated fields are scheduled to be hidden from the NetSuite UI at a later time.

This enhancement includes support for automatically generating serial shipping container codes (SSCC-18) in GS1 linear bar code format. On the renamed record, Autogenerated ID Format, you can enter the company prefix or DUNS number used to generate the SSCC-18. It does not support the generation of UCC codes other than the SSCC-18.

The following table shows the list of renamed records and fields used for SSCC-18 generation, including deprecated fields:

Element Type	Elements Used in NetSuite WMS 2021.1 and Previous Versions	Elements Used in NetSuite WMS 2021.2 and Later Versions
Custom Record	**WMS License Plate Range**	**Autogenerated ID Format**
Field	LOCATION	Deprecated
Field	COMPANY	Deprecated
Field	CARRIER	Deprecated
Field	LICENSE PLATE TYPE	TYPE
Field	LICENSE PLATE PREFIX	PREFIX (This field is not currently used.)
Field	BEGIN	INITIAL NUMBER
Field	LICENSE PLATE MAX	LAST NUMBER USED
Field	LICENSE PLATE GENERATION TYPE	Deprecated
Field	COMPANY DUNS NUMBER	DUNS NUMBER – COMPANY PREFIX
Custom Record	**UCC Master**	**Autogenerated UCC ID Code**
Field	CONTAINER LP	CARTON
Field	UCC NUMBER	UCC ID CODE
Custom Record	**WMS External Label Details**	**WMS External Label Details**
Field	LICENSEPLATE NUMBER	UCC ID CODE

To access the renamed records, NetSuite WMS 2021.2 includes new menu options. Using the WMS Warehouse Manager role, you can go to WMS Configuration > UCC ID Codes, and then select one of the following menu options:

- Autogenerated ID Format – Displays a link to your existing format for autogenerating SSCC-18 codes
- Autogenerated UCC ID Codes – Displays the list of autogenerated SSCC-18 codes

For more information about setting up the Autogenerated ID Format record, see the help topic Defining a UCC Code Format.

New Warehouse Management Records

NetSuite WMS Version 2019.2 and later introduces new warehouse management records in the following topics:

- Creating Item Process Families

- Creating Item Process Groups
- Creating Item Stock Locations
- Creating Order Types
- Creating Zones

Setting up GS1 bar codes requires that you create item alias records to map the GTIN-14 to an item. See Creating Item Aliases for GS1 Bar Codes.

Creating Item Aliases for GS1 Bar Codes

To scan GS1 bar codes or generate and print GS1 bar codes for labels, you must create an item alias record to map the GTIN-14 to an item. If your bar code data includes the unit for an item, you can also map the unit of measure.

An item can have more than one associated item alias. However, the same item alias cannot be associated with more than one item. You cannot set up item alias records that have the same GTIN-14 and item, but with different units.

Before you create item alias records for GS1 bar codes, make sure that you have selected the GS1 process type on the Enable Advanced Barcode Scanning? system rule. See Activating the Enable Advanced Barcode Scanning? Rule.

To create item aliases for GS1 bar codes:

1. Using the Warehouse role, go to Setup > Items > Item Alias > New.
2. On the WMS Item Alias page, enter or select values in the following fields:
   - In the **Name** field, enter the 14 digits of the GTIN-14 for the item.

     You must include the 14th digit reserved for the check digit.
   - In the **Item** field, select the item to which you want to assign this alias.
   - Optionally, in the **Units** field, select the item's unit of measure.

   > **Note:** If you do not specify a unit of measure on the item alias record, NetSuite WMS retrieves the transaction unit when you scan the GS1 bar code using a mobile device.
3. Click **Save**.

After you create item alias records for GS1 bar codes, you can set up custom application identifiers for bar code scanning. See the help topic Setting Up Custom Application Identifiers for GS1 Bar Code Scanning.

Creating Item Process Families

Item process families are groupings of similar products that can be used to identify items that should be stored together in the same area of your warehouse. For example, you can create a clothing item process family to identify all clothing items. Then, define a putaway strategy to put away all clothing items in bin locations in a specified zone. Set the item process family on the item record.

> **Note:** With the new version, item process families replace item families.

To create an item process family:

1. Using the Administrator role, go to Lists > Supply Chain > Item Process Family > New.

2. In the **Name** field, enter the name of the item process family you are creating.
3. In the **Description** field, optionally add details.
4. Click **Save**.

Creating Item Process Groups

Item process groups are groupings of similar products that use a more refined classification than item process families. For example, you can create a pants item process group to more specifically identify items rather than using a clothing item process family. Set the item process group on the item record. Like item process families, you can use item process groups to define pick and putaway strategies.

> **Note:** With the new version, item process groups replace item groups.

To create an item process group:

1. Using the Administrator role, go to Lists > Supply Chain > Item Process Group > New.
2. In the **Name** field, enter the name of the item process group you are creating.
3. In the **Description** field, optionally add details.
4. Click **Save**.

Creating Item Stock Locations

For warehouse locations that do not use bins, you can create one or more stock locations for your items. If you create multiple stock location records for an item in your warehouse, you can assign one as the preferred stock location.

When entering item quantity on a mobile page, you can view the list of stock locations associated with an item.

To create item stock locations:

1. Using the Warehouse role, go to Setup > Items > Item Stock Location > New.
2. On the WMS Item Stock Location page, enter or select values in the following fields:
   a. In the **Name** field, enter a unique name for the item stock location
   b. In the **Item** field, select the item you want to associate with the stock location.
   c. If you want to set this as the preferred stock location for the item, check the **Preferred (Per Item)** box.
   d. In the **Location** field, select the warehouse location
3. Click **Save**.

Creating Order Types

Use order types to associate attributes to orders, which in turn drives internal processes. You can create an accounting list of multiple order types and associate each outbound order with one order type.

Reference order types in pick strategies. For example, you can create a pick strategy to define where orders of a specified type should be picked from. You could also set an order type to only include orders of the same type. For more information, see the help topic Bin Sorting with Pick Strategies.

Note: With the new version, the order type accounting list values replace the order type records.

To create an order type:

1. Using the Administrator role, go to Setup > Accounting > Accounting Lists > New.
2. On the Add to Accounting Lists page, select **Order Type**.
3. On the Order Type page, enter values in the following fields:
   - **Order Type** – Enter a name for the order type.
   - **Description** – Optionally, you can enter a description
4. Click **Save**.

Creating Zones

Zones are areas in your warehouse that contain items with similar qualities or requirements. Some examples of warehouse zones might include an electronics zone, a special handling zone, or a refrigerated items zone.

In addition to helping you organize your warehouse, you can include zones in your pick and putaway strategy definition. For more information, see Defining Pick Strategies for Released Orders.

When you create bin locations, you can assign them to zones. You may notice a performance impact if a zone has more than 4000 associated bins. You should create at least one zone record for each batch of 4000 bins in your warehouse. For information about bins, see the help topic Creating Bin Locations or Carts.

Note: With the new version, zones replace WMS warehouse zones. WMS zones are used only in putaway strategies.

To create a zone:

1. Using the Administrator role, go to Lists > Supply Chain > Zone > New.
2. In the **Name** field, enter a name for your warehouse zone.
3. In the **Location** field, select the warehouse location to which zone belongs.
4. Click **Save**.

Creating Custom Wave Criteria Templates

Wave criteria templates define the orders you want to include in wave transactions. You can customize the default search template by predefining the standard filtering criteria or adding more filters to suit your wave requirements. You can also add columns to the order search results that are shown on the Wave page.

For example, you can create separate templates for orders to be shipped by FedEx and by UPS. Include a custom field if you want to specify the route. On the Wave Criteria form, you can select your custom template to apply your predefined filters.

Read the following guidelines when creating wave criteria templates:

- All custom search templates must have the **_nswave** suffix in the ID.
- For the Location filter, you can set a warehouse location only.

- Before using a template, you can test it by clicking the Preview option on the saved search record. An error message appears when the order search retrieves more than 10,000 line items. To narrow down the results, be sure to adjust the criteria accordingly.
- The fields on the Results subtab of a search template appear as columns on the Orders and Line Item subtabs of wave transactions.

To create search templates for wave transactions:

1. Using the Administrator role, access the custom search template by appending your NetSuite account URL with:

   app/common/search/search.nl?id=-4241&e=T&cu=T

   Example: https://<accountID>.app.netsuite.com/app/common/search/search.nl?id=-4241&e=T&cu=T

   > **Tip:** After your initial access, the URL redirects you to the Saved Transaction Search page in edit mode. You can skip steps 2 and 3.

2. On the Transaction Search page, click **Edit**.
3. On the Saved Transaction Search page, click **Edit this Search**.
4. Enter the basic saved search details in the following fields:
   - In the **Search Title** field, replace the default name with your own name for your search template.
   - In the **ID** field, replace the default ID with your own unique ID for your search template, and then retain or add the **_nswave** suffix.
5. Make sure that the **Available as List View** box is checked.
6. (Optional) To remove or add available filters that you can define in this template, click the **Available Filters** subtab, and then do any of the following::

   > **Note:** When you add or remove filters from the **Available Filters** subtab, you display or hide them from the Wave Criteria form, respectively. For more information about this form, see the help topic Creating Wave Transactions.

   - **Add filters** - In the **Filter** column, select a field to add as an available filter, and then click **Add**.
   - **Remove filters** - click the filter's row and then click **Remove**.
   - **Update filter labels** - In the **Label** column, view or update a filter's label.

     Labels appear as the field names on the Order Release Criteria form.

   Refer to the following list of required filters that you must add to your template:

Required Filters	Description
Location	Warehouse location
Type	Any of the supported transaction types: sales orders or transfer orders

   You can add any of the optional filters based on your business needs:

Optional Filters	Description
Transaction Number/ID	The transaction number of the sales or transfer order
Name	For sales order, name of the customer
Order Date	Order date on the transaction

Optional Filters	Description
Ship Date	The date when orders are scheduled for shipment
Ship Via	Shipping method on the transaction
Item : Item Process Family	Item process family associated with the ordered items
Item : Item Process Group	Item process group associated with the ordered items
Item	Name of the item
Order Type	Order type on the transaction

7. To define your filtering criteria for the available filters, click the **Criteria** subtab, and then do the following:

> **Note:** Your filtering criteria appear as default settings in their corresponding fields on the Wave Search Criteria Form. For more information about this form, see the help topic Creating Wave Transactions.

   a. In the **Filters** column, select the available filter.

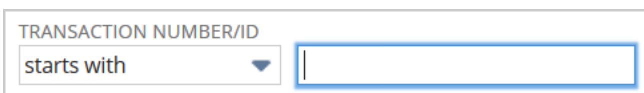
      The Saved Transaction Search popup window appears on the page. If the popup does not display automatically, click the Set Description icon beside the filter.

   b. Define the filtering criteria, and then click **Set**.

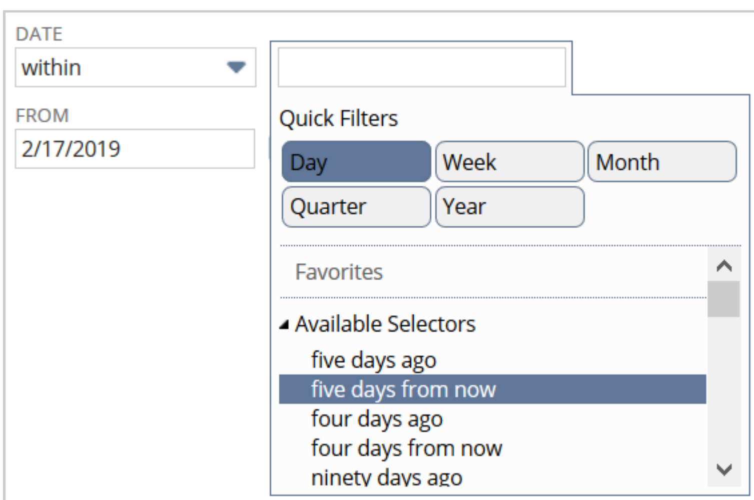
      The following examples show you how to define text and date filters:

      - For text filters, you can add a selector to enter part of a filter's value.

        For example, to set the Transaction Number/ID filter, select the **starts with** selector, and then enter part of the transaction ID as the keyword.



      - For date filters, you can replace the default **All** date selector by clicking its field.



        You can also specify a date range by entering or selecting dates in **From**, **To**, or both fields.

      For detailed instructions on defining filters, see the Help topic Defining a Saved Search in the NetSuite Help Center.

c. Click **Add**.

Repeat steps a - c to define more available filters.

8. (Optional) To add columns for your order search results on the Wave page, do the following:

> **Note:** When your order search results appear on the Wave page, you can view the new columns on the **Orders** and **Line Items** subtab. For more information, see the help topic Creating Wave Transactions.

a. Click the **Results** subtab.
b. In the **Columns** subtab, select the field you want to add as a column on the Wave page.
c. Click **Add**.

Repeat steps a - c to add more columns.

9. To test and preview the results before you use the template, click **Preview**.
10. Click **Save**.

On a Wave Criteria form, you can select your custom search template from the list in the **Template** field. See the help topic Creating Wave Transactions.

To view or edit an existing custom search template, you can go to Lists > Search > Saved Searches.

Creating a Custom Pick Ticket Saved Search

NetSuite WMS provides a standard pick ticket saved search, which you can customize to display additional standard or custom transaction body fields on pick tickets. Fields that you add to your pick ticket saved search must also be added to the advanced pick ticket templates on which you want the fields to appear. Wave transactions can generate pick tickets using your custom saved search, instead of the standard saved search.

Before you create a custom pick ticket saved search, read the following guidelines and limitations:

- If you create multiple custom pick ticket saved searches, NetSuite WMS can use only the latest one to generate pick tickets. To generate pick tickets that show different sets of fields, add all the fields to a single custom saved search, and then specify the fields you want to display on each template.
- Your pick ticket saved search must have the **_nspickticket** suffix in the ID.
- Before you add custom fields to a saved search, make sure that you have already created and added your custom transaction body field to a transaction. See Custom Transaction Body Fields.

> **Note:** If you create a custom field, take note of its internal ID, which you must set up on advanced pick ticket templates. For more information, see How do I find a field's internal ID? in the NetSuite Help Center or Creating Custom Advanced Templates for Pick Tickets.

- On the **Results** subtab of your saved search, do not remove any default fields on your custom pick ticket saved search. Removing default fields might affect the field groupings on a pick ticket. On advanced pick ticket templates, you can hide fields that you do not want to appear on your pick ticket.
- On the **Filters** subtab of your saved search, do not add filters to your custom pick ticket saved search. When you print pick tickets from a wave transaction, NetSuite WMS applies default filters in the backend to ensure that pick tickets display only data associated with the template on the wave form.

For more information about advanced pick ticket templates and custom wave forms, see the following topics:

- Creating Custom Advanced Templates for Pick Tickets

- Creating Custom Wave Forms

To create a custom pick ticket saved search:

1. Using the Administrator role, go to Lists > Search > Saved Searches.
2. From the Saved Searches list, click the **Edit** link next to any saved search.
3. On the address bar of the saved search page, replace the id value of the URL with **-4389**, without changing any other part of the URL.

   Sample pick ticket saved search URL in edit mode:

   https://9999999.app.netsuite.com/app/common/search/search.nl?id=**-4389**&e=T&cu=T&whence=
4. Press **Enter**.

   The Saved Pick Ticket Search page appears in edit mode.
5. On the Saved Pick Ticket Search page, enter values in the following fields:
   - In the **Search Title** field, enter a unique name for your saved search.
   - In the **ID** field, replace **default** with a unique ID, without deleting the **_nspickticket** suffix.
6. On the **Results** subtab, click the **Columns** subtab, and then do the following:
   a. In the **Field** column, select the field or the record associated with the field.

      When you select a record, on the Saved Search popup window, select a field from the list.

   b. In the **Custom Label** column, enter the field label you want to appear on the pick ticket.

   c. Click **Add**.

   d. If you want to add another field, click **Add Row**.

      Repeat steps a to c for each field you want to show on the pick ticket.
7. If you want to change the default sorting on a pick ticket, in the **Sort By** field, select the primary sorting field.

   > **Tip:** In the **Then By** fields, you can select additional sorting fields that you want to apply to pick tickets.
8. Click **Save As**.

To view or edit an existing pick ticket saved search, you can go to Lists > Search > Saved Searches.

Creating Custom Advanced Templates for Pick Tickets

You can modify the pick tickets generated from released waves by customizing the advanced print template, Standard Pick Ticket/Pick Report PDF/HTML Template. You can display more fields on a pick ticket, change a field location, and do other such customizations. For more information about pick tickets for released waves, see the help topic Printing Pick Tickets from Wave Transactions.

> **Important:** To access and create advanced print templates, you must enable the Advanced PDF/HTML Templates feature in your account. For more information, see the help topic Enabling the Advanced PDF/HTML Templates Feature.

If you want to display more standard or custom fields, first you must add the fields to a custom pick ticket saved search. You can create multiple templates to display fields from a single custom saved search. Make sure that you have the internal ID of each field you want to add to a template. For more information, see

Creating a Custom Pick Ticket Saved Search or How do I find a field's internal ID? in the NetSuite Help Center

To create custom advanced templates for pick tickets:

1. Using the Administrator role, go to Customization > Forms > Advanced PDF/HTML Templates.
2. From the Advanced PDF/HTML Templates list, click **Customize** next to the Standard Pick Ticket/Pick Report PDF/HTML Template.
3. On the template editor, click the **New Elements** subtab, and then do any of the following:
   - To add fields, on the toolbar, click the plus icon, and then from the Fields list, click the field you want to select.

     For detailed instructions, see the help topic Adding and Removing Fields in Advanced Templates. To use other tools from the toolbar, see the help topic Template Editor Toolbar.
   - To move a field's location on the template, drag and drop the field to its new location.
   - To add and generate bar codes, see the help topic Adding Bar Codes in Advanced Templates.
4. If you want to display standard or custom fields from a pick ticket saved search, do the following:
   a. On the **New Element** subtab, you can find the section or table where you want to display the field.

      The pick ticket template includes the tables for single and multi-order picking types. You can use the Source Code editor to add or remove elements from the table for one or both picking types.

   b. On the upper-right side of the page, click the **Source Code** toggle to switch it on.
   c. On the Source Code editor, assign the internal ID of the field to a new or existing section or table column.

      > **Tip:** By default, the table for single order picking starts at Line 164. To find tables or other elements for single order picking, you can search for tags with `picktype=="SINGLE"`.

      For example, you want to display a custom field after the Pick Task # column of the table for single order pick tickets. You can add the table header and table data tags and set the internal ID of the field as follows:

      - **Table header** – After the line for the pick task number column heading (Line 175 by default), you can copy and add a <th> tag with its default attributes. Set the internal ID of the custom field for the label.

        ```
        <th class="thStyleOrderItem" style="width:8%">
        ${lineitem.samplecustomfieldID@label}</th>
        ```
      - **Table data** – After the line for the pick task number data (Line 200 by default), you can copy and add the corresponding <td> tag with its default attributes. Set the internal ID of the custom field for the cell or data.

        ```
        <td align="center" class="tdStyle" line-height="100%" style="width:6%" vertical-
        align="middle">${lineitem.samplecustomfieldID}</td>
        ```

      Within each tag, you can modify attribute values, like width or vertical alignment, to make sure the data fits into the table. For more information about source code editing, see the help topic Source Code Editing to Customize Advanced Templates.
5. If you want to set your custom template as the preferred template for custom wave forms, do the following:
   a. Click **Template Setup**.

   b. On the Template Setup popup window, check the **Template is Preferred** box.
   c. If you want to replace the template name, in the **Title** field, enter the template name.
   d. Click **Save**.

   For detailed instructions, see Using the Template Setup Window.
6. To view your changes before you save the template, click **Preview**.
7. Click **Save**.

After you create your custom advanced print template, you can assign it to a custom wave form. The form that you select on a wave transaction can use the template associated with it to generate the pick ticket. For more information, see Creating Custom Wave Forms.

Creating Custom Wave Forms

You can customize the Wave form to assign your own custom advanced print template for generating pick tickets. You can also set your custom form as the preferred form when creating wave transactions.

To create custom wave forms:

1. Using the Administrator role, go to Customization > Forms > Transaction Forms.
2. From the Custom Transaction Forms list, click **Customize** next to the Wave form.
3. On the Custom Transaction Form page, enter the values in the following fields:
   - In the **Name** field, enter a name for your custom wave form.
   - In the **ID** field, enter a unique ID.

     For detailed instructions on creating custom forms, see the help topic Creating Custom Entry and Transaction Forms.
4. If you want to set the custom form as the default form for wave transactions, check the **Form is Preferred** box.
5. If you want to assign a custom advanced template for pick tickets, do the following:
   - In the **Printing Type** field, choose **Advanced**.
   - In the **Print Template** field, select your custom advanced template.
   - In the **Email Template** field, select your custom advanced template.

   For more information about custom templates for pick tickets, see Creating Custom Advanced Templates for Pick Tickets.
6. Click **Save**.

Setting Warehouse Management Preferences

This section describes the new required and optional NetSuite warehouse management preferences that you can set on your NetSuite account.

The following preferences might already be set in your NetSuite account, depending on your business needs:

- Using Bins on Item Records
- Using Preferred Bin on Item Receipts
- Default Items to Zero Received/Fulfilled

For more information about these settings, see the help topic Setting Warehouse Management Preferences.

The following preferences are available after you enable the Warehouse Management feature:

> **Note:** As of NetSuite WMS Version 2020.1 and later, the Allow Cross-Dock Picking preference has been transferred to the pick strategy record and renamed to Include Inbound Staging Bins. See the help topic Pick Task Sorting for Released Orders.
>
> For standard and custom mobile processes, NetSuite WMS does not support the entry and mandatory setting of class and department classifications. For more information about these mandatory preferences, see the help topic Classifications. For more information about mobile processes, see the help topic Mobile Device Setup.

Automatically Set to Firm Committed Quantities in a Wave - Automatically checks the Commitment Confirmed box for transaction lines of orders that you include in a wave.

If you want to reallocate the quantities committed for the order, you can clear the Commitment Confirmed box. However, NetSuite WMS does not adjust the quantities on the wave transaction and its pick tasks. On your mobile device, you should pick only the remaining committed quantities, which you can partially fulfill. Do not pick the entire quantity on the released wave without replenishing the committed quantities on the order transaction. NetSuite WMS cannot generate a fulfillment record for the order.

Use Pick to Clean Process at Locations Using Warehouse Management - Indicates your preference to pick from bins that can be emptied, before those with larger quantities.

Item Fulfillments Per Order or Per Order Line - Provides two options for creating item fulfillments of released orders:

> **Note:** This preference replaces the Consolidate item fulfillments by sales order system rule.

- **Per Order** - (default setting) Generates item fulfillments for each released order
- **Per Order Line** - Generates item fulfillments for each line item of a released order

To set the new warehouse management preferences:

1. Go to Setup > Accounting > Preferences > Accounting Preferences.

2. On the Accounting Preferences page, under the Order Management subtab, check the box or select the preference that you want to use:
   - **Automatically Set to Firm Committed Quantities in a Wave**
   - **Use Pick to Clean Process at Locations Using Warehouse Management**

   Create Item Fulfillment at Locations Using Warehouse Management: **Per Order** or **Per Order Line**
3. Click **Save**.

Defining Pick Strategies for Released Orders

For warehouse locations that use bins, you can create putaway and pick strategies for specific warehouse processes. Putaway strategies enable you to define where received items should be put away. They also apply to the inventory transfer processes. Pick strategies enable you to prioritize zones where operators should go to pick ordered items. Within a zone, they determine the bin location NetSuite suggests in the outbound processing of orders. For more information, see the following topics:

- Defining Pick Strategies

  When you run the migration script, the details from your existing pick strategies are used to automatically create new pick strategies. For more information, see the table in Migrating Existing Data to New Records.
- Defining Putaway Strategies

System Rules and Integrations

This section describes the new system rules and integrations you need to configure on your NetSuite WMS account.

- Mobile Devices
- Warehouse Management System Rules

For information about available integrations, see the following topics:

- NetSuite WMS Shipping Integration Setup
- Electronic Data Interchange (EDI) Integration

Mobile Devices

NetSuite WMS leverages the mobility and convenience of mobile devices to process inbound, outbound, and inventory transactions and post real-time updates to your NetSuite account. For use with NetSuite WMS, your mobile devices should meet the following requirements:

- At least 256 MB flash memory
- Android 7.0 or higher - recommended for new devices

  Existing devices with previous Android OS versions, not earlier than Android 4.1, are still supported in the current NetSuite WMS version.

  > **Note:** Devices that run on iOS are not supported.

- 1D barcode scanner

  For bar code requirements, see the help topic Bar Code Setup for NetSuite WMS.
- 4 inch or larger touch screen
- 802.11a/b/g enabled
- Bluetooth enabled
- HTML 5 & JavaScript enabled browser (TLS 1.2 compliant)

  Only the Google Chrome browser is supported. You should use the latest version of Google Chrome.
- Interactive Sensor Technology (IST)
- Ruggedized or semi-ruggedized (optional)

Setup Procedures for NetSuite WMS Mobile Capabilities

Based on your business requirements, you can perform the following procedures to set up the NetSuite WMS mobile capabilities:

- Language Preference Setup for Mobile Applications
- Configuring Mobile App Settings
- Bar Code Setup for NetSuite WMS
- Mobile Printing for NetSuite WMS

- Mobile Device Configuration
- Mobile Device Customization

After you set up your mobile device, you can access the mobile app. See the help topic SCM Mobile App Access.

Configuring Mobile App Settings

You can enable mobile printing capabilities and change default account settings for mobile apps. Account settings apply to the standard NetSuite WMS mobile app, as well as to other mobile apps that you use from the SCM Mobile SuiteApp. If you enable mobile printing, the printing settings apply to both standard and custom mobile processes. For more information about mobile printing, see the help topic Mobile Printing for NetSuite WMS.

To configure mobile app settings:

1. Using the Mobile - Administrator role, go to Setup > Settings > Mobile Settings.
2. On the Mobile - Settings page, you can set or change the default settings.
   - In the Account section, set the values in the following fields:

Field Name	Description
Enable Mobile Printing	Check this box if you want to enable printing from a mobile device. If you check this box, on the Terms and Conditions popup window, you must click **I Agree** to confirm that you agree to the PrintNode integration terms and conditions. Also, the Printing section and fields appear on the page. For more information, see the help topic Mobile Printing Requirements and Setup.
Debug State	Check this box if you want to set the mobile application to debug state.
Always Allow App Selection	Check this box to always display the application selection page on a mobile device, regardless if you have not configured multiple mobile applications.
Include Null Values in Configuration Files	Check this box if you want to include null field values in the configuration files of mobile applications that you add to the SCM Mobile bundle. If you clear this box and do not include null field values, you decrease the configuration file size.
Account Mode for Logging	Select the account mode on which you want to enable logging for mobile applications: **Production**, **Debug**, or **Development**.
Batch Size of Logs for Storage (GB)	Enter the batch size, in GB, that must be reached before NetSuite WMS automatically transfers the logs for storage.
Table Row Size	Enter the number of rows you want to display on a table at the initial load of the mobile page, then at each succeeding load.

   - If you have checked the Enable Mobile Printing box, in the Printing section, you can set the values in the following fields:

Field Name	Description
PrintNode URL for View Printers API	In case PrintNode changes their default URL, enter the new PrintNode URL for the view printers API. This API enables you to retrieve the list of printers.

Field Name	Description
PrintNode URL for Create Print Job API	In case PrintNode changes their default URL, enter the new PrintNode URL for the create print job API. This API enables you to submit print requests.
Print Server Connection Timeout	Enter the maximum number of seconds that you want to enable NetSuite WMS to establish a printer server connection before it times out. You cannot enter a negative value in this field.
Printable File Retention (In Hours)	Enter the maximum number of hours that you want printable files to remain in your file cabinet before they get deleted. You cannot enter a negative value in this field. You cannot reprint deleted files. For more information about reprinting, see

3. Click **Save**.
4. If you enable mobile printing, be sure to begin a new session or reload its browser on your mobile device to view the updates.

Warehouse Management System Rules

This section describes the system rules that are new for NetSuite WMS Version 2019.2 and later.

- Activating the Enable Warehouse Management System Rule
- Activating the Carton System Rule
- Activating the Enable Advanced Barcode Scanning? Rule
- Activating the Enable Tally Scan Rule
- Activating the Use Custom Packing Lists? Rule

For the list of deprecated system rules, see Deprecated Warehouse Management System Rules.

For the complete list of system rules available in the latest version of NetSuite WMS, see the help topic System Rules for NetSuite WMS.

Activating the Enable Warehouse Management System Rule

When you enable the Warehouse Management feature, you must activate the Enable Warehouse Management system rule. This rule provides mobile access to NetSuite WMS.

To activate the Enable Warehouse Management system rule:

1. Using the Warehouse role, go to Setup > Warehouse > System Rules.
2. On the WMS System Rules List, click **Edit** for Enable Warehouse Management.
3. On the WMS System Rules page, in the **Rule Value** field, enter one of the following values: **Y**.
   - **Y** - If you have enabled the Warehouse Management feature, enter **Y** to activate the system rule.

> **Note:** When you activate the system rule, you disable menus and scripts provided in a NetSuite WMS version earlier than 2019.2. This includes the RF > RF Main Menu > RF/ Mobile Screen menu and the customdeploy_wmsse_menu_loc_scan script.
>
> Also, do not specify a location for this rule. On location records, you can set a location to use Warehouse Management. See the help topic Creating Warehouse Locations.

- **N** - If you want to inactivate the system rule, enter **N**.

> **Tip:** If you want to disable the Warehouse Management feature, you must first inactivate this system rule before you disable the feature. You should complete all waves or pick tasks before you inactivate the system rule.

> **Note:** When you inactivate the system rule, you disable menus and script provided by NetSuite WMS Version 2019.2 and later. This includes the RF > RF Main Menu > NS WMS Mobile menu and the customdeploy_wms_mobilemenu script.

4. Click **Save**.

After you activate the system rule, wait for a series of scheduled scripts to be completely processed before you begin to access NetSuite WMS on your mobile device. These scripts set up the mobile application in your account. To view the runtime status of these scripts, go to Customization > Scripting > Scheduled Script Status. For information about mobile device access, see Mobile Devices. If you encounter issues on your initial access to NetSuite WMS on your mobile device, see Troubleshooting WMS Upgrade Issues.

Activating the Carton System Rule

The new Carton system rule controls whether the system prompts warehouse operators to enter carton numbers on mobile devices when they use the single or multi-order picking process. If you activate the new system rule, operators can pick items for various orders directly to the carton in which the items will be shipped. Operators can also select all cartons for an entered order and mark them as shipped with tracking details.

To activate the Carton system rule:

1. Log in to your NetSuite WMS account using the Warehouse role.
2. Go to Setup > Warehouse > System Rules.
3. To activate the carton system rule for all or just one warehouse, do one of the following:
   a. To activate the carton system rule for all warehouse locations, click **Edit** next to the rule.
   b. To activate the carton system rule to accommodate a business exception that applies to one warehouse location only, complete the following steps:
      i. Next to the carton system rule, click **View**.
      ii. In the **Actions** menu, click **Make Copy**.
      iii. In the **Name** field, enter **Use cartons for multi-order picking?** or **Use cartons for single-order picking?**.
      iv. In the **Location** field, select the warehouse location you want the rule to apply to.
4. In the **Rule Value** field, enter **Y**.
5. Check the **Active** box.
6. Click **Save**.

Activating the Enable Advanced Barcode Scanning? Rule

Before you can set up bar codes, you must activate the Enable Advanced Barcode Scanning? system rule. For each warehouse location, you can enable either a GS1 or Composite bar code, but not both. To view the list of supported formats for each bar code type, see Setting Up Bar Codes for Mobile Devices.

> **Important:** If you use composite bar code templates, NetSuite WMS 2020.2 automatically activates this system rule when you decide to upgrade to the new WMS solution. On the system rule record, it preselects the **Composite** bar code setting in the Process Type field. If you want to change the default settings or activate this system rule for specific warehouse locations only, follow the instructions in this topic.

To activate the Enable Advanced Barcode Scanning? rule:

1. Log in using the Warehouse role, and then go to Setup > Warehouse > System Rules.
2. On the WMS System Rules List page, next to the Enable Advanced Barcode Scanning? rule, do the following:
   - To apply the system rule to all warehouse locations, click **Edit**.
   - To apply the system rule to a specific warehouse location, click **View**. On the WMS System Rules page, from the Actions list, select **Make Copy**.
3. On the WMS System Rules page, enter or select values in the following fields:
   - In the **Rule Value** field, enter **Y**.
   - In the **Process Type** field, select one of the bar code types: **GS1** or **Composite**.

   For location-specific system rules, enter or select values in the following additional fields:
   - In the **Name** field, enter a unique name for the system rule.
   - In the **Location** field, select the warehouse location.
4. Click **Save**.

After you activate the Enable Advanced Barcode Scanning? system rule, you can create the item alias records for GS1 bar codes and templates for composite bar codes. Optionally, you can set up custom application identifiers for GS1 bar codes. See the following topics:

- Setting Up Bar Codes for Mobile Devices
- Creating Composite Bar Code Templates
- Creating Item Aliases for GS1 Bar Codes
- Setting Up Custom Application Identifiers for GS1 Bar Code Scanning

Activating the Enable Tally Scan Rule

Tally scanning enables you to scan an item and increment the picked quantity by 1. It supports single and multiple order picking for standard or custom processes.

When you activate the system rule, NetSuite WMS enables and checks the Use Tally Scan box on new item records. You can check this box on existing records for items for which you want to enable tally scan. See the help topic Creating Items for NetSuite WMS.

To activate the Enable Tally Scan rule:

1. Using the Warehouse role, go to Setup > Warehouse > System Rules.

   The System Rules List appears on the page.
2. Next to the Enable Tally Scan rule, do one of the following:
   - To activate the rule, click **Edit**, and then proceed to step 4.
   - If you want to create a copy of the rule, click **View**.

   The WMS System Rules page appears in edit or view mode.
3. To create a copy of the rule, from the **Actions** list, click **Make Copy**.

   A new WMS System Rules page appears in edit mode.
4. Enter or select values in the following fields:

Field Name	Description
Name	For copies of the rule, enter **Enable Tally Scan**.
Description	If you want to create a location-specific rule, select the warehouse location.
Rule Value	To activate the rule, enter **Y**.
Quantity Limit	Enter the maximum ordered quantity for the item on a transaction for which you want to enable Tally Scan. You cannot tally scan an item if the quantity to pick exceeds this limit.
Use Tally Scan In	Select the single or multiple order picking type of a standard or custom process in which you want to enable tally scan.

5. Click **Save**.

Activating the Use Custom Packing Lists? Rule

If you activate the Use custom packing lists? system rule, you can use your own script for your custom PDF packing list when you manually pack orders. You can configure the default rule for all your warehouse locations. If you want to assign a custom packing list to a specific location, you can create a copy of the default rule and configure it according to your business requirements.

Before you activate and configure this rule, note the following guidelines:

- You must activate the Manually pack orders? system rule. If you do not activate this rule, you automatically print packing lists that use the default format only. For more information, see the help topic System Rules for NetSuite WMS or Manually Packing Orders and Printing Packing Lists.
- You can copy the wms_sl_CustomPrintpacklist.js script containing the default PDF packing list that you can customize. See the help topic Setting Up Custom Packing Lists.

To activate the Use custom packing lists? rule:

1. Using the Warehouse role, go to Setup > Warehouse > System Rules.

   The System Rules List appears on the page.
2. Next to the Use custom packing lists? rule, do one of the following:
   - To activate the rule, click **Edit**, and then proceed to step 4.
   - If you want to create a copy of the rule, click **View**.

   The WMS System Rules page appears in edit or view mode.
3. To create a copy of the rule, from the **Actions** list, click **Make Copy**.

   A new WMS System Rules page appears in edit mode.

4. Enter or select values in the following fields:

Field Name	Description
Name	For copies of the rule, enter **Use custom packing lists?**
Description	If you want to create a location-specific rule, select the warehouse location.
Rule Value	To activate the rule, enter **Y**.
Script ID	Enter the ID of the script for your custom PDF packing list.
Deployment ID	Enter the ID of your custom script deployment record.

5. Click **Save**.

Deprecated Warehouse Management System Rules

NetSuite WMS Version 2019.2 and later does not support the following system rules:

System Rule (Not supported)	Available in WMS Version 2019.2 and later
Consolidate item fulfillments by sales order	Preference for per order or per order line fulfillment
Define item barcode type	Advanced Bar Code Scanning rule that supports select GS1 and composite bar code formats Mobile printing capability can generate select GS1 bar code formats for item labels
Receiving-Item Label	Mobile printing capability enables item and pallet label printing when receiving orders
Stage picked items before shipping	Mandatory staging for items released in waves
Use custom multi-order pick reports	Wave release for multiple orders
Use custom single-order pick reports	Wave release for single orders
Use custom RF menu	Mobile device configuration or customization
Use custom single order packing lists?	Use custom packing lists? system rule

For more information, see the following topics:

- Setting Warehouse Management Preferences
- Printing Pick Tickets from Wave Transactions