



ORACLE
NETSUITE

Inventory Management

2022.2

March 22, 2023



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Inventory Management

- Inventory Management Overview
- Inventory Management Setup
- Basic Inventory Management
- Advanced Inventory Management
- Inventory Reporting
- Warranty and Repairs Management
- Quality Management

Inventory Management Overview

Managing your inventory is one of the most important tasks of running your business. With effective inventory management, you can streamline your stock levels to reduce costs and maximize revenue and profits.

Good inventory management begins with having accurate, accessible information about your inventory. Quality information is crucial to answering inventory questions that arise on a daily basis, such as:

- How many items do I have and where?
- How many items have I committed to sell?
- Should I order more items or materials now?

Your answers to these questions direct your inventory management decisions. Using reports and inventory analysis, you can answer these questions accurately and respond with better decisions.

Basic Inventory Management

Using inventory features, you can monitor real-time information about your inventory costs, quantities, and asset values. With this information, you can make informed decisions about buying and selling your inventory.

Because the [Inventory Workflow](#) is integrated in your account from procurement to sales, each transaction updates inventory records. It also reports immediately to give you precise, real-time information about your inventory. You can always access current stock information.

For example, when an employee sells or receives items, the quantities available are updated on item records when you enter the transaction. You do not have to re-enter information to adjust your inventory records.

See [Basic Inventory Management](#).

Advanced Inventory Management

Keeping track of quantities of stock lets you know if orders can be fulfilled, when to reorder more, and report on inventory quantities. If you use Advanced Inventory Management, accurate stock data helps you automate demand-based inventory replenishment.

Plan inventory based on supply and demand calculations using [Demand Planning](#) and [Available to Promise](#).

Expand inventory commitment calculations to consider future and on-hand inventory on supply orders using [Supply Allocation](#).

See [Advanced Inventory Management](#).

Inventory Reporting

NetSuite reports enable you to access data about your inventory. The real-time information in the following reports can be used to assess whether stock levels and profit margins are where you want them to be.

- Examine stock levels using the [Current Inventory Snapshot Report](#). The [Inventory Activity Detail Report](#) details item activity per transaction.
- Examine merchandise turn rates using the [Inventory Turnover Report](#). This can help you determine how frequently you should order stock.
- The [Physical Inventory Worksheet](#) lets you do a physical stock count to be sure the physical stock matches the quantities showing in your account records.
- Examine inventory values and profitability with the [Inventory Profitability Report](#), [Inventory Valuation Report](#), and [Inventory Revenue Report](#).
- Find out which items are ready to be fulfilled on the [Items Pending Fulfillment Report](#) and which items are not yet available to fill orders with the [Inventory Back Order Report](#).

See [Inventory Reporting](#).

Inventory Management Setup

To begin your setup, you must enable the required features for inventory, location, and orders. You can also enable additional features that suit your business requirements. The features you enable determine which capabilities are available in your account. See [Enabling Features for Inventory Management](#).

Whether you have one or multiple locations and items, create item and location records accordingly. See [Inventory Setup with Locations and Multi-Locations](#).

Depending on your business requirements, you can set preferences and convert non-inventory items:

- [Distributing Inventory](#)
- [Converting Non-Inventory Items to Inventory Items](#)
- [Setting the Inventory Level Warnings Preference](#)
- [Non-Available Inventory Settings for Locations](#)
- [Configuring Per-Line Locations for Transactions](#)

Enabling Features for Inventory Management

When you enable the Inventory feature, you can also enable features for orders and locations along with their prerequisite features.

To enable features for Inventory Management:

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. On the Enable Features page, click the subtab, and then check the box next to the features you want to use.

The following table shows the list of required features depending on your inventory management setup:



Note: You should enable Multi-Location Inventory when you enable the Locations feature, even if you plan to track only one location. This is recommended especially for NetSuite OneWorld accounts.

Setup options	Company subtab	Transactions subtab	Items & Inventory subtab
Inventory Only			Inventory
Inventory with Locations	Locations		Inventory
Inventory with Multi-Location Inventory	Locations	Sales Order Advanced Shipping Advanced Receiving	Inventory Multi-Location Inventory

3. (Optional) On each subtab, check the box next to additional features that you want to use. See [Additional Features for Inventory Management](#).
4. Click **Save**.

After you enable features, you can set preferences, create locations, and set up inventory items. See [Inventory Setup with Locations and Multi-Locations](#).

Additional Features for Inventory Management

You can enable additional features to tailor how you identify, process, and track details for inventory management. Other features that you enable may have their own preferences that you can set and required records.

The features you use determine the flexibility you have in managing your inventory and the ability you have to report on your inventory functions. When you use more inventory features, NetSuite can track and report on more detailed information.

■ **Features for Inventory Items**

Depending on the type of items in your location, you can enable features for items, units, and costing. If you want to track numbered inventory types, you can enable Serialized Inventory or Lot Tracking. You can also enable features to generate, print, and scan item bar codes. See the help topic [Item Types](#) or [Item Record Management](#).

■ **Features for Orders and Drop Shipments**

You can use the Purchase Orders feature to track inventory items you order and track receipt of the items into your inventory. Choose to let your vendors have access to view the purchase orders you place. See the help topic [Purchasing](#).

When you enable the Drop Shipments & Special Orders feature, you can drop ship items directly to your customers from your vendors. Automatically generate purchase orders for drop ship items on sales transactions. Drop-ship purchase orders show the preferred vendor for the item and the customer's shipping address.

You can use special orders to purchase and track items that may not follow regular inventory processing. Use special orders for just-in-time orders, customized items, and items you prefer not to keep in stock.

See the help topics [Drop Ship Items](#) and [Special Order Items](#).

If you enable the Return Authorization feature, you can create authorizations to record items being returned to you from customers. Tracking returns helps you to manage how and when returns are approved and received back into inventory. See the help topic [Customer Return Management](#).

■ **Inventory Count**

Inventory Count enables you to enter regular periodic counts of on-hand item quantities to maintain inventory accuracy. You can create manual and calculated inventory counts. See the help topic [Inventory Count](#).

■ **Bin Management**

Bin Management enables you to create bin records that identify the places you store inventory items within your warehouse and track on-hand quantities. You can also use bins to specify where items need to be put away in stock when you receive them. See [Bin Management](#) or [Advanced Bin / Numbered Inventory Management](#).

■ **Inventory Status**

If you enable the Advanced Bin/Numbered Inventory Management feature, you can enable the Inventory Status feature. The Inventory Status feature lets you assign statuses to inventory to drive internal processes. You can choose to make items unavailable to be allocated to orders based on their associated inventory status. See [Inventory Status](#).

■ **Advanced Inventory Management**

You can use the Advanced Inventory Management feature to automate demand-based inventory replenishment. This feature provides additional inventory features for advanced planning and supply allocation. See [Advanced Inventory Management](#).

■ **Intercompany Cross-Subsidiary Fulfillment**

If you use the Multi-Location and Multiple Shipping Routes features, you can enable the Intercompany Cross-Subsidiary Fulfillment feature on your NetSuite OneWorld account. This feature enables you to fulfill orders and receive returns across multiple subsidiaries. See [Intercompany Cross-Subsidiary Fulfillment](#).

■ Advanced Item Location Configuration

Along with the Multi-Location feature, you can enable the Advanced Item Location Configuration feature, which offers the advanced management of assigning and maintaining item attributes associated with locations. It also provides the ability to filter the location information that displays on item records to make item attribute data more accessible. See [Advanced Item Location Configuration](#).

Inventory Setup with Locations and Multi-Locations

You can track inventory on item records, even if you do not use locations on your account. If you have multiple locations, choosing to track each location can have a big impact on your inventory management. The following topics describe the inventory tracking options and how your location setup can affect them:

- [Inventory Only](#)
- [Inventory with Locations](#)
- [Inventory with Multi-Location Inventory](#)

The following chart describes the ways you can track inventory depending on which features you use:

Available Functionality	Inventory Only	With Locations	With Multi-Location Inventory
Create item records	yes	yes	yes
Use inventory level warnings	yes	yes	yes
Adjust inventory levels	yes	yes	yes
Track inventory costing	yes	yes	yes
Create location records	no	yes	yes
Track transactions by location	no	yes	yes
Identify a location on a transaction	no	yes	yes
Create sales reports filtered by location	no	yes	yes
Track stock of items by location	no	no	yes
Identify a location on each item record	no	no	yes
Fulfill orders from a distinct location	no	no	yes
Receive inventory to several locations	no	no	yes
Transfer items between locations	no	no	yes
Create inventory reports filtered by location	no	no	yes
Track inventory using bins on a per-location basis	no	no	yes

Inventory Only

The basic setup involves tracking inventory without setting up locations. This setup is ideal if you have only one location where you receive, stock, and sell your items.

After you enable features for inventory management, you can create inventory item records to track inventory of items, parts, or finished goods, as well as associated costs. See the help topic [Creating Item Records](#). If you have non-inventory items that you want to convert into an Inventory Item type, see the help topic [Converting Non-Inventory Items to Inventory Items](#).

Inventory with Locations

The Locations feature enables you to define location records that identify each of your offices or warehouses. You can also create a hierarchy of locations to track information by locations within groups of locations.

For example, you can create a parent location called East Coast, then create sublocations for it called New York and Georgia. You could even create sublocations for the Georgia location called Atlanta Warehouse and Atlanta Sales Office.

To create location records, see the help topic [Creating Locations](#) or [Locations Overview](#).

Note: Defining location records alone does not enable you to identify each item with a location. To track inventory across locations or set a preferred location, use the Multi-Location Inventory feature. See [Inventory with Multi-Location Inventory](#).

After you create location records, you can perform additional setup procedures:

- On inventory item records, you can select a location to classify your items and limit the items that roles can access. For instructions, see the help topic [Restricting Access to Records by Location](#).
- Set the Allow Per-Line Locations preference to configure per-line classification of transactions. This preference lets you display the Location column in the Items sublist and on print documents. For instructions, see [Configuring Per-Line Locations for Transactions](#).

For more information, see [Inventory Management with Locations](#).

Inventory with Multi-Location Inventory

If you stock, sell, and fulfill items in more than one location, you can use [Multi-Location Inventory](#) to manage inventory for your distinct locations.

Note: You cannot disable this feature manually after you enable it and distribute items. Contact Customer Support if you want to disable this feature.

The Multi-Location Inventory feature lets you associate each inventory item and transaction with a location. You can track purchasing costs, sales income, stock levels, and valuation for each item in each location. You can also transfer inventory between locations. When you generate reports, you can filter by location for inventory status, revenue, valuation, activity, and fulfillment status, depending on other features you use.

Note: You should not use location records to identify areas within your warehouse, such as a bin, shelf, or dock. Doing so causes difficulties with fulfillments, LIFO and FIFO costing, and reporting. You should use a bins feature for this purpose. See [Bin Management](#).

When you create item records, you can choose a preferred location, and set reorder points and preferred stock levels per location. You can configure a preference that alerts you when your inventory reaches these levels. See [Setting the Inventory Level Warnings Preference](#).

If you enable the [Advanced Inventory Management](#) feature, you can automate demand-based inventory replenishment, which does not affect tracking inventory by locations.

Distributing Inventory

As part of your Multi-Location Inventory setup, distribute any unallocated inventory before you can enter them on inventory transactions. After you enable the Multi-Location Inventory feature, unallocated inventory items are considered to be in a null location. The Inventory Distribution transaction allocates inventory from its original, unassigned state to one or more locations on your account. It updates item details and quantities for all affected locations.



Note: Because an item's inventory level should be zero or positive prior to distribution, you should run the Reviewing Negative Inventory report before distributing inventory. See [Reviewing Negative Inventory](#).

On the Inventory Distribution form, an item shows in the list for distribution if:

- The item has not already been distributed.
- The distribution is dated after the last inventory-affecting transactions.
- The item has a non-zero quantity on hand.
- It is an inventory item or assembly item.
- The item is active.

Note the following guidelines before you distribute inventory:



Warning: Do not delete or change inventory transactions dated prior to an inventory distribution, as this can cause difficulties maintaining accurate inventory data.

- NetSuite recommends that you distribute inventory during non-peak business hours.
- Your data is most accurate if you distribute all unassigned inventory at one time and make no changes to transactions dated before the distribution. If you change earlier transactions and then return to Distribute Inventory, the Undistributed column may show an incorrect or negative quantity. To correct for this error, go to Transactions > Inventory > Adjust Inventory.
- Inventory is distributed only if the stock level is 0 or greater.

You can choose from the two ways to enter an inventory distribution:

- [Simple Inventory Distribution](#) - Enables you to distribute inventory to a single location.
- [Manual Inventory Distribution](#) - Lets you specify the quantity you want to distribute to each of your locations.

Simple Inventory Distribution

A Simple Inventory Distribution is the simplest way to distribute inventory. All of your inventory is distributed to a single location and transfer requests are created for inventory that needs to be relocated. No details are entered to distribute particular items and amounts to specific locations. It is intended that these details will be entered at a later date.

Using the Simple method is ideal if you want to get started with inventory transactions right away and you are able to wait to specify particular quantities for each location.

You can alternatively choose to enter a Manual Inventory Distribution. For more information, read [Manual Inventory Distribution](#).



Warning: You should not delete or change inventory transactions dated prior to an inventory distribution, as this can cause difficulties maintaining accurate inventory data.

To enter a Simple Inventory Distribution:

1. Go to Transactions > Inventory > Distribute Inventory.
 2. Click **Simple**.
 3. The **Date** field autofills with the current date. You can select or enter another date.
- Note:** If you postdate this distribution transaction, be sure that the date you choose is after the date of any other postdated inventory transactions, especially transactions not associated with locations.
4. Select the posting period you want to post this distribution to. If a period is closed, you cannot post to that period.
 5. In the **Ref. No.** field, enter information to identify this distribution in a list of other transactions. If you have enabled auto-generated numbering, this will autofill.
Auto-generated numbering is enabled at Setup > Company > Auto-Generated Numbers. On the **Transactions** subtab, check the box in the **Allow Override** column next to **Inventory Distribution**.
 6. In the **Variance Account** field, select an account for this distribution. Usually, an expense account for inventory distribution is selected here.
 7. In the **Location** field, select the one location you are distributing ALL items into.
 8. Select a **Department** or **Class** if you track them.
 9. In the **Memo** field, enter a memo to identify this inventory distribution.
 10. In the item list shown, you can review the items and quantities that will be distributed. You cannot make changes to this list.
Click the arrow in the field above the **Total Stock** column to select additional items to review.
 11. Click **Save**.

After you have saved the distribution, you can enter inventory transactions.

It is important to enter a Manual Inventory Distribution at a later point in time after you have done a Simple Distribution to maintain accurate inventory records for all of your locations.

Manual Inventory Distribution

A Manual Inventory Distribution enables you to enter specific details to distribute particular items and amounts to specific locations. This method requires more time than the Simple distribution method, which means more time before you can enter inventory transactions.

Using the Manual method is ideal if you want to specify quantities for each location before inventory transactions are entered for individual locations.

You can alternatively choose to enter a Simple Inventory Distribution. For more information, read [Simple Inventory Distribution](#).



Warning: You should not delete or change inventory transactions dated prior to an inventory distribution, as this can cause difficulties maintaining accurate inventory data.

To enter a Manual Inventory Distribution:

1. Go to Transactions > Inventory > Distribute Inventory.
2. Click **Manual**.
3. The **Date** field autofills with the current date. You can select or enter another date. If you postdate this distribution transaction, be sure that the date you choose is after the date of any other postdated inventory transactions, especially transactions not associated with locations.
4. Choose a posting period for this transaction.



Note: You cannot post to a closed accounting period.

5. In the **Ref. No.** field, enter information to identify this distribution in a list of other transactions. If you have enabled auto-generated numbering, this will autofill.
6. In the **Variance Account** field, select an account for this distribution. Usually, this is an expense account for inventory distribution.
7. Select a **Department** or **Class** if you track them.
8. In the **Memo** field, enter a memo to identify this inventory distribution. When you use the Search Transactions feature, you can search for specific words and phrases in the **Memo** field.
9. The table at the bottom of the page shows information about undistributed items.
 - The **Item** column shows all items in your initial inventory, 50 items at a time.
 - The **Total Stock** column shows the stock count for each item in your initial inventory.
 - There is a column for each of your company location records with a data-entry field beneath it.
10. In the field beneath each location, enter the quantity you want to allocate to that location. For each item, if the total of quantities entered for all locations is not equal to the number in the **Total Stock** column, the variance quantity appears in the **Variance** column. The variance amount for each item appears in the **Variance Amount** column. The total variance of your inventory distribution appears in the **Total Variance Amount** field at the top of the page.
11. If you are distributing lot-numbered items or serialized items, enter these numbers in the **Serial/Lot Numbers** field.
 - Separate each serial number with a space, comma or by pressing Enter after each one. You must enter a serial number for each of the quantity on hand that you enter. For example, if you enter a quantity on hand of 2, then you must enter two serial numbers.
 - Lot numbers must be entered in this format: **LOT#(Quantity)** For example, to enter a quantity of 100 items as Lot number ABC1234, enter **ABC1234(100)** in the **Lot Numbers** column.
12. Click **Save**.

For any items with an undistributed stock quantity, you can distribute inventory again at a later time.



Note: These Distribute Inventory changes are permanent. Your stock counts entered as of the date specified are not changed as of that point, even if you enter transactions with dates prior to the worksheet date.

For example, you can enter an inventory distribution dated 10-25-08 and allocate 10 of item number UNV21200 to Location One. You then create an invoice dated 10-24-08 which sells two of item UNV21200

from Location One. The quantity of the item at Location One on 10-25-08 remains at 10 as determined by the inventory distribution.

After you have distributed an item, if you enter a transaction that is dated before the distribution and includes the distributed item, the transaction will not have location impact. This is true even if you choose a location on the transaction.

From the previous example, the UNV21200 items sold on the invoice created on 10-24-08 would not be able to be tracked by location, because the invoice date is prior to the distribution date of that item on 10-25-08.

Converting Non-Inventory Items to Inventory Items

Items originally set up as a non-inventory type can be converted to inventory items to allow tracking of the item stock.

For example, an item that you sell but do not stock may become more popular over time. Eventually, it may be to your advantage to keep the item in stock.

When you convert a non-inventory item to an inventory item, you keep all records in one place. You keep the transaction history of the item prior to conversion to an inventory item, and all inventory data after the conversion.

If you use the Advanced Inventory Management feature, then order calculations do consider past sales when the item was not an inventory item. This feature and other capabilities such as auto-calculated reorder point and preferred stock level are enabled for a converted item.



Note: You must have Full permission for Items to see the Convert button and be able to convert items. See the help topic [Setting Permissions](#).

To convert a non-inventory item to inventory:

1. Go to Lists > Accounting > Items.
2. Click **View** next to a Non-inventory or Other Charge item.
3. On the item record, click **Convert to Inventory**.

With the Serialized Inventory or Lot Tracking features, click the button arrow to choose **Convert to Serialized Inventory** or **Convert to Lot Numbered Inventory**.

The Inventory Item page appears.

4. On the **Accounting** subtab, select the **Cost of Goods Sold** account for the inventory item.

Converted inventory items must use a Cost of Goods Sold (COGS) account that is different from the expense account selected. This is because non-inventory items use an expense account only to associate the cost of buying the item. The account is not used for inventory costing calculations, the way inventory items use them.

NetSuite uses the expense account selected in inventory costing calculations. Therefore, the expense account for the inventory item cannot be identical to the COGS account.

This is effective when you convert any Non-Inventory For Resale items or Non-Inventory For Purchase item.

5. Click **Save**.



Important: After you click **Save**, the conversion is complete and cannot be undone. You cannot convert inventory items to non-inventory items.

Transactions and Converted Items

After you convert an item record, the state of the item is tracked on a per-transaction basis. Some transactions created before the conversion may remain open and still need to use the item as a non-inventory item.

Transactions created prior to the conversion that used the item as a non-inventory item will continue use it as a non-inventory item. This includes cases like sales orders which may be only partially processed.

In the transaction history of the item, past instances continue to be treated as non-inventory. Line items on these transactions include **Non-inventory** in the item name to distinguish them.

 **Note:** If you edit a transaction to remove and then re-add the item, the item is then treated as an inventory item.

All transactions created after the conversion that include the item treat the item the same as any regular inventory item.

View the transaction history for an item on the History subtab of the item record.

Setting the Inventory Level Warnings Preference

When you assign reorder points and preferred stock levels to your inventory items, you can set the Inventory Level Warnings preference. This preference alerts you when inventory levels reach or decrease below a reorder point. To set reorder points and preferred stock levels, see the help topic [Locations](#).

The Inventory Level Warnings preference displays a popup message when you add an item to a transaction. On the message, it shows an item's quantity available, reorder point, and the quantity on order. If you have multiple locations, the warning also displays information for the location you are selling from.

For example, you enter a sales order for 10 widgets. However, the quantity in stock is only 5 widgets. A popup warning alerts you that you do not have enough items in stock to fulfill the order. It prompts you to confirm if you want to add the item to the transaction.

To set the Inventory Level Warnings preference:

1. Go to Home > Settings > Set Preferences.
2. On the Set Preferences page, click the **Transactions** subtab.
3. In the Warnings section, check the **Inventory Level Warnings** box.
4. Click **Save**.

Non-Available Inventory Settings for Locations

By default, Multi-Location Inventory makes inventory items in a location available to orders or to display in your web store. You can change the default setting on location records where inventory can be stocked, but not committed on orders or fulfillments.

You might prefer to maintain inventory records for items while they are not available for sale, such as in the following cases:

- Returned items that require inspection or repair

- Items not available for sales placed in your web store

On location records, identify the availability of inventory by checking the appropriate boxes:

■ Make Inventory Available

Check this box on a location record to make all on-hand inventory stored at the location available to be added to orders.

Clear this box if you prefer that on-hand inventory stored at the location is excluded from the available count.

■ Make Inventory Available in Web Store

Check this box on a location record for on-hand inventory stored at the location to be included in the total quantity available that displays in the Web Store.

Clear this box if you prefer that the on-hand inventory stored at the location is excluded from the total quantity available that displays in the Web Store.

For detailed instructions, see the help topic [Creating Locations](#).

Configuring Per-Line Locations for Transactions

The Allow Per-Line Locations preference enables you to set a location at the line level of a transaction. In addition to the Location field in the transaction body, you can display the Location column in the Items sublist. You can identify a location in the transaction body and line level at the same time.

For example, you can choose the location East Coast on one line and choose West Coast on another line. Then, you can choose the location United States in the transaction body.

Setting per-line locations is useful if you identify legal entities or geographical segments by location and want to report separate balance sheets and income statements. Therefore, a sales order can post line items to the correct locations (East and West Coast). Then, the header location allows a correct income statement to be run for United States transaction totals.

Per-Line Locations with the Locations Feature

When you use the Allow Line-Item Locations preference with the Locations feature, your account tracks each line-item by location on transactions.

For example, Wolfe Electronics wants to track the sales amounts of each line split by locations. Wolfe associates a location with each transaction line-item. Then, Wolfe can track the sales per location of the business over any period.

However, your account cannot determine a location for receipt or fulfillment of items. To track inventory across locations, you must use the Multi-Location Inventory feature.

Per-Line Locations with the Multi-Location Inventory Feature

With the Multi-Location Inventory feature, the Allow Per-Line Locations preference enables you to associate a different location for each line-item on transactions to track inventory.

For example, you sell two items on a sales order. You can associate one item with the Atlanta Location and the second item with the New York location. Then, the items show on fulfillments and reports associated with their respective locations.

With the Locations feature, you can manually set the Allow Per-Line Locations preference. When you enable Multi-Location Inventory, this preference is automatically enabled and hidden. If this preference

is set or enabled, you can customize a transaction form to display the Location column. When you enter transactions using the custom form, the location in the transaction body and line level must have data in both fields. If either is left blank, both fields are cleared unless they are mandatory. If you set a preference to make locations mandatory, both the transaction body and line level locations become mandatory.

For information about these features, see [Inventory Setup with Locations and Multi-Locations](#).

To enable per-line locations for transactions:

1. If you do not use Multi-Location Inventory, go to Setup > Accounting > Accounting Preferences to set the Allow Per-Line Locations preference.

You can also set the Make Locations Mandatory preference. For more information about these preferences, see the help topic [Using Per-Line Classifications](#).

2. Customize the transaction form to show the Location column.

On the Custom Transaction Form page, you can go to the Sublist Fields and Printing Fields subtabs to set per-line location for the Items sublist and print or email documents accordingly. See the help topic [Customizing Forms for Per-Line and Header Classifications](#).

Basic Inventory Management

This section describes the basic processes and tasks for inventory management. It includes the forms you can use to perform the tasks.

Some of the tasks depend on other features that you enable along with the Inventory feature. See [Enabling Features for Inventory Management](#) or [Inventory Setup with Locations and Multi-Locations](#).

Assess Stock Levels

View inventory quantities on individual item records or through inventory reports. See [Assessing Stock Levels](#).

Run a report to view any negative inventory values that you can adjust or replenish. See [Reviewing Negative Inventory](#).

Adjust Inventory Levels

Adjust the on-hand quantity of your inventory items, without entering a purchase order, by using either of these forms: [Inventory Adjustment](#) or [Inventory Worksheet](#). See [Inventory Adjustments](#).

If you use the [Inventory Count](#) feature, you can perform a cycle count and adjust inventory based on the results of the count. An approved count creates the necessary inventory adjustments to reconcile your inventory.

Move Inventory

If you have multiple locations, you can view your item records or review negative inventory to assess your stock levels for each location. See [Item Settings and Stock Levels for Multi-Locations](#) or [Reviewing Negative Inventory](#).

To handle inventory requirements across locations, you can transfer inventory through the following forms:

i Note: NetSuite provides [Inventory Distribution](#) forms that let you assign unallocated inventory to single or multiple locations, as part of your [Multi-Location Inventory](#) setup. Right after you configure your locations, distribute your unallocated inventory. You can process succeeding inventory movements through inventory transfers or transfer orders. See [Distributing Inventory](#).

- **Inventory Transfer** – to transfer inventory by increasing the on-hand quantity on one location and decreasing the quantity on another location. See [Basic Inventory Transfers](#).
- **Transfer Order** – to schedule and track the movement of inventory items. See [Inventory Transfer Orders](#).
- **Intercompany Transfer Order** – in NetSuite OneWorld accounts, to move inventory between locations in two different subsidiaries within your company. See [Intercompany Inventory Transfers - Non-Arm's Length](#).
- **Bin Transfers and Bin Putaway** – If you use the Bin Management feature, you can transfer items between bins or put away items in bins. See [Bin Management](#).

Track Inventory in Bins and by Status

If you enable the Bin Management feature, you can identify and track regular inventory items in bins within your location. The Advanced Bin/Numbered Inventory Management feature provides support for serialized or lot-numbered items and enhanced tracking per location. See [Bin Management](#).

Also, when you use the Advanced Bin/Numbered Inventory Management feature, you can enable the Inventory Status feature. Inventory Status provides the ability to associate a status to inventory items. See [Inventory Status](#).

Replenish Inventory

As you receive items through purchase orders, your inventory levels are automatically adjusted. See the help topic [Entering a Purchase Order](#). For information about the purchasing process within the inventory workflow, see [Inventory Workflow](#).

When you set reorder points and preferred stock levels for your inventory items, you can use the Order Items form to determine which ones need to be replenished. You can submit purchase orders in bulk for these items. See [Order Items Page](#) or [Item Settings and Stock Levels for Multi-Locations](#).

If you have multiple locations, you can move inventory based on your reorder point and preferred stock level to replenish another location through these forms:

- **Replenish Location By Inventory Transfer** - Based on the quantities you enter on this worksheet, NetSuite creates an inventory transfer and updates your inventory for each location.
- **Replenish Location By Transfer Order** - This form enables you to create multiple transfer orders to schedule and track inventory replenishment across your locations.

See [Inventory Replenishment and Withdrawal](#).

Depending on the Manufacturing features you use, you can build assemblies to generate stock and add them to your inventory. See the help topic [Manufacturing Overview](#).

Sell and Fulfill Inventory

Selling and fulfilling items from your inventory affects your stock levels, accounting records, and item commitment. You can track backordered items through reports and receive alerts for underwater inventory. See [Inventory Sales and Fulfillment](#).

Commit Inventory

Depending on your settings for item commitment preferences, you can allocate inventory to open orders by using the [Committing Orders](#) form. If you want to create and run a schedule for committing orders, use the Commit Order Schedule form. See [Creating Commit Orders Schedule](#).

Reallocate Items

When you receive inventory from your vendor, those items are committed to existing open orders or backorders. You can use the Reallocate Items transaction to manually reallocate these items to different open orders than the ones they are automatically allocated to.

You can reallocate items to orders as needed instead of using the item commitment allocated automatically.

For example, you receive a shipment of widgets from your vendor. These widgets are automatically allocated to existing open orders. On the same day, a customer calls you in need of widgets. You can enter an order for that customer and then reallocate the new shipment of widgets to fill the new order.

See [Reallocating Items](#) topic.

Process Items in a Warehouse

You can use a combination of item, manufacturing, and inventory management features to set up bar coding, build assemblies, or track bins. You can process inventory in your warehouse and get them ready to ship to customers. See [Warehouse Processing](#).

Inventory Workflow

Using inventory features, you can monitor real-time information about your inventory costs, quantities, and asset values. With this information, you can make informed decisions about buying and selling your inventory.

Making informed decisions has beneficial results, such as:

- reduced order-to-delivery cycle time
- increased revenue and profits
- improved productivity
- highest quality customer service

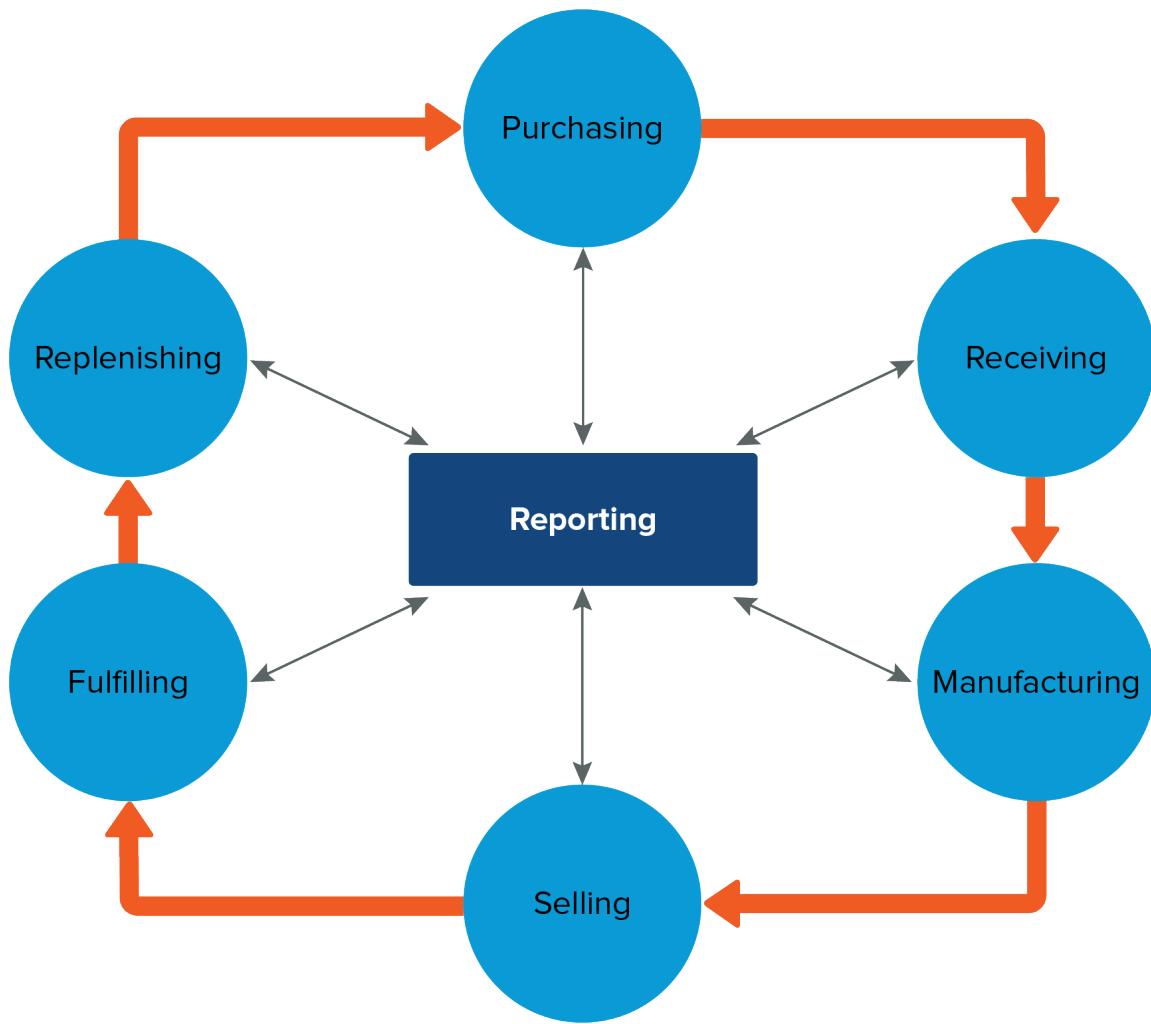
Using NetSuite to optimize your inventory workflow benefits your company and your customers.

Your customers benefit from a reduced order-to-delivery cycle time and highest quality customer service. In turn, this results in increased repeat orders placed with your company.

Your company also benefits from increased revenue, profits, and productivity when you track and analyze your inventory processes. Your success with inventory management translates into success for your company overall.

The goal of inventory management is to get your product to your customer in the shortest amount of time and at the lowest cost. This helps maintain quality and customer service. One means to achieve this goal is continuous examination of inventory workflow processes and acting on your analysis.

The diagram below illustrates the processes of the inventory workflow cycle:



Inventory Workflow Processes

The processes in the inventory workflow are: Purchasing, Receiving, Manufacturing, Selling, Fulfilling, and Replenishing. This workflow is a cycle of procuring and then selling your items.

To analyze workflow processes, you must first understand the function of each process. Key points to consider about each process are discussed below:

Purchasing

Create purchase orders based on your replenishment needs to acquire items and materials to stock and sell. It is important to track purchase orders to know what items to expect, when to expect them and who to expect them from.

Tracking purchases also helps you make replenishment decisions, such as what, when, and how much to order. You can view the quantity on order on item records and on reports.

You can also give your vendors access to your account to view purchase orders you place with them.

For more information, see the help topic [Purchasing](#).

Receiving

When vendors ship products you ordered, enter an item receipt to indicate that you added them to your inventory. Then, account for them as an asset to your company. Because your account integrates item receipts with inventory records, each receipt updates inventory to show accurate stock levels and valuations.

For more information, see the help topic [Receiving Orders](#).

Manufacturing

After items and materials are received, gather components of kits and groups, or run a production to complete assemblies before you sell them.

You can also identify items and transactions with bar codes that enable you to process them more quickly and efficiently.

For more information, see the help topic [Manufacturing Overview](#).

Sales

When you enter a sales order, the item is committed from your inventory available and reserved for that customer. Because sales are integrated with inventory records, the effects of each sale automatically update inventory records.

An item sale increases the quantity committed and decreases the quantity available. If you sell an item that you do not have in stock, selling the item also increases the quantity back ordered.

For more information, see [Selling Inventory](#).

Fulfillment

Fulfillment physically takes items out of inventory and ships them to the customer.

Because fulfillment transactions are integrated with inventory records, the effect of each fulfillment on your stock is automatically updated. Fulfilling items decreases the quantity on-hand and inventory asset value.

For more information, see [Fulfilling Inventory](#).

Replenishment

Having a clear understanding of your replenishment needs is an important function of streamlining your inventory. To replenish inventory, you examine your inventory needs and identify the products and ideal quantities to order.

You can determine replenishment needs by using item records and reports. Alternatively, NetSuite can assess stock levels and reorder information on item records, then suggest the items and quantities to order.

For more information on replenishment, review the following:

- [Assessing Stock Levels](#)
- [Advanced Inventory Management](#)
- [Handling Backorders](#)
- [Inventory Level Assessments with Reports](#)

Inventory Workflow Assessment

To assess your inventory workflow, you need to access information about each process. Your account's integrated records and reporting makes it straightforward to get information about your inventory items and transactions.

Item records maintain real-time information about your inventory items, including stock on hand, quantities needed and the value of your inventory.

You can track inventory by examining item records, or use reports to determine how your stock levels are affecting your inventory workflow. See [Inventory Reporting](#).

Inventory Management with Locations

When you use the Locations feature, you can classify items and transactions by location as part of your inventory management procedures.

The Location field is displayed on the Classification subtab at the body of records and transactions.



For accounts with role restrictions for the location segment, the Location field selection on your employee record limits the items that you can access. It also limits the location you can associate with items and transactions that you create. For more information, see the help topic [Restricting Access to Records by Location](#).

For more information about the Locations feature, see the help topic [Locations Overview](#).

Classifying Transactions by Location

You can identify a location at the body of a transaction to set all transaction lines to the location of your choice.

For example, you want to select the location on a sales order to record where the sale is made. You could also select a location on a purchase order to identify where you expect to receive those items.

When you identify your transactions by location, you can manage your inventory based on the location from which items are ordered, received, and sold.

If you use per-line locations, you can associate a different location for each transaction line. Note the following differences between classifying locations per transaction and transaction line:

If you do not use per-line locations:

- The location you choose in the transaction body applies to all line items on the transaction.
- For inventory adjustments, an adjustment account chosen in the transaction body is also associated with the location chosen in the body.

If you use per-line locations:

- A different location can be associated with each line item.
- For inventory adjustments, an adjustment account chosen in the transaction body is not associated with a location.

For more information, see [Configuring Per-Line Locations for Transactions](#).

Filtering Reports and the Transaction Search by Location

When you identify locations on transactions, you can run specific reports for items and transactions with data filtered by location.

For example, you can define the Location filter on the Sales Orders Pending Fulfillment report to view only the transactions associated with a specific location.

On the Transaction Search, you can apply the Location filter to limit your search results. For more information, see the help topic [Searching for a Transaction by Location](#).

Assessing Stock Levels

You can access inventory data to see real-time information. This includes how much you have, how much you need, and the value of your stock on hand. Then, determine how your stock levels are affecting your inventory workflow.

For example, if stock of an item is too low, then your order-to-delivery cycle time increases, and this can negatively affect customer service. If stock of an item is too high, then your overhead is increased by having money tied up in items sitting on shelves.

When you view item data, quantities are defined as follows:

Quantity/Level	Definition
Quantity Available	Quantity On Hand less Quantity Committed i Note: Quantity Available is never tracked as a negative quantity. An item is either non-available (quantity 0) or available (a positive quantity). You cannot commit items in an underwater state.
Quantity On Hand	Quantity currently stocked, including Quantity Committed
Quantity Committed	Quantity promised to customers on approved sales orders that are not yet fulfilled
Quantity On Order	Quantity on approved purchase orders pending receipt from the vendor
Quantity To Order	Preferred Stock Level less Quantity Available
Quantity Backordered	Quantity committed to sales for which there is no stock to fill the order
Reorder Point	Quantity level at which you need to place an order to replenish stock, or build more of this item.
Preferred Stock Level	This is the optimum quantity to maintain in stock of an item. The ideal quantity is the amount you need to fulfill orders in a timely manner without either running out or overstocking. This quantity is used to determine your replenishment needs on the Order Items page. It is the quantity you want to have in stock after an order is placed. The preferred stock level you set is used to calculate the quantity of items to be ordered on the Order Items page.
Safety Stock	This is a measure of the amount of stock you want to keep on hand to account for variations in demand so that you do not run out. It is a buffer amount of an item you prefer to keep in stock at all times so that you do not run out.

Questions you may ask during this process are:

- Do I have items at or below their preferred stock level or reorder point?
- How many backorders do I have?

- Do I need materials to assemble items?
- What quantity should I order?
- What is the lead time to receive items?
- Has demand increased or decreased for an item?

Your answers to these questions determine how you order your items and materials. In general, many companies order inventory with the goal of keeping inventory at an optimum level rather than keeping many extra items on hand.

It is ideal to keep enough goods to service customers by fulfilling orders in a timely manner without having extra stock on hand. Extra stock reduces funds tied up in idle stock.

To assess stock information and determine your replenishment needs, identify information about your items and materials. For example, stock available and customer demand. Then, you can determine the quantities of items you need.

When you view item stock status on item records or on the item list, you can use these quantities to determine inventory replenishment needs. For example, you could determine that:

- An item with a quantity available below the preferred stock level and a quantity on order of zero may need to be ordered.
- An item with a large quantity available and large quantity on order may need to be ordered less often.
- An item with a low preferred stock level and a high quantity backordered may need to be ordered more frequently or in higher quantities.
- An item with any quantity backordered and a quantity on order of zero may need to be ordered.
- An item that is backordered in one location, but has high quantities in another location may need to be redistributed.

There are several ways to access item information in your account:

- To **View an Item List**, go to Lists > Accounting > Items.
- [View an Individual Item Record](#)
- [View Inventory Reports](#)
- [Utilize Stock Replenishment](#)

View an Individual Item Record

1. Go to Lists > Accounting > Items.
2. Click **View** next to the item.

View Inventory Reports

You can also view inventory reports to access item information. For details, read the following topics:

- [Inventory Reporting](#)
- [Inventory Level Assessments with Reports](#)
- [Reporting on Demand Planning](#)

Utilize Stock Replenishment

NetSuite can also automatically assess item replenishment needs and make suggestions for purchases. After you enter stock information an item record, NetSuite can suggest when to reorder the item and how many to purchase. This can be done using the following features:

- Advanced Inventory Management
- Demand Planning

By assessing item stock levels and sales information in reports, you can determine the optimum stock levels for your items and streamline your inventory.

If you use the Multi-Location Inventory feature, see [Inventory Replenishment and Withdrawal](#). This topic provides information about taking surplus items out of one location and move them into another location with too few.

Reviewing Negative Inventory

You can identify any negative inventory values that can be corrected by adjusting them to be positive. This process does not create a physical count. A physical count should already be completed before you begin this task.



Note: Because an item's inventory level should be zero or positive prior to distribution, you should run this report before distributing inventory. Read more about inventory distribution in [Distributing Inventory](#).

To review negative inventory:

1. Go to Transactions > Inventory > Review Negative Inventory.
 2. On the Review Negative Inventory page, in the **As of Date** field, enter the date you want to review inventory through. For example, if you enter June 1, 2010, then the list will show inventory that has a negative count as of June 1st of 2010.
 3. The list of inventory items that shows identifies any items that have negative inventory.
- If you use the Multi-Location Inventory feature, you can filter the list by location in the **Location** field.
4. Use the list to adjust the amounts for those items so they are no longer negative. For each negative-quantity item on the list, you can enter an inventory adjustment to correct them. For details about entering an inventory adjustment, read [Inventory Adjustments](#).

Reviewing negative inventory items is a required task for the period closing checklist. For more details, read the help topic [Inventory Tasks on the Period Close Checklist](#).

To learn more, see [Avoiding Underwater Inventory](#).

Inventory Adjustments

To adjust your inventory levels, you can use either of these forms: Inventory Adjustment or Inventory Worksheet. They adjust your inventory in different ways.

For example, if you enter both forms with a quantity of +10 widgets, see how each form performs the adjustment:

- The Inventory Adjustment form is inclusive of the previous stock total, so it adds 10 to the previous inventory count.
- The Inventory Worksheet is exclusive of the previous stock level. It resets the inventory count to 10 on the date of the worksheet, regardless of the previous count.

For serialized or lot-numbered items, you can use the Inventory Adjustment form only.



Warning: You should not delete or change any inventory transactions dated prior to an inventory distribution, as this can cause difficulties maintaining accurate inventory data.

For instructions on creating the inventory adjustment forms, see the following topics:

- [Entering an Inventory Adjustment](#)
- [Creating an Inventory Worksheet](#)

Entering an Inventory Adjustment

The Adjust Inventory form enables you to change the quantity and value of an inventory item without entering a purchase order.

For example, to account for clerical errors, changes in cost, thefts, or miscounts, you can enter an inventory adjustment.

Note the following guidelines for using this form:

- NetSuite bases the cost estimate for a standard cost item on the total amount, quantity. NetSuite uses this basis to ensure that quantity times rate equals amount.
- If you use the LIFO or FIFO costing methods, enter an inventory adjustment to change the quantity and value of an inventory item. This adjustment preserves the costing history of the item.
- For custom transaction fields, any field marked for Inventory Adjustment is also available for the Inventory Transfer. You can customize the Adjust Inventory page to remove these fields.

To enter an inventory adjustment:

1. Go to Transactions > Inventory > Adjust Inventory.
The Inventory Adjustment page appears.
2. For OneWorld accounts, in the **Subsidiary** field, select the subsidiary you want to associate with this adjustment.
3. Set values in fields of each of the following sections or subtabs: [Primary Information](#), [Classification](#), and [Adjustments](#).
4. Click **Save**.

Primary Information

- **Reference #** - If enabled, you can enter a unique number to identify and track of your adjustments. This number appears on register and account detail reports.



Note: If you use auto-generated numbering, a reference number can be manually entered if you allow the override of auto-generated numbers for an inventory adjustment. Otherwise, the reference number is generated and cannot be changed after the transaction is saved. See the help topic [Set Auto-Generated Numbers](#).

- **Customer** - If this inventory adjustment is a job-related cost, but not specifically billed as a line-item, select the appropriate customer or job.

For example, a caterer bills his or her customer a per person rate for a beer and wine bar. Then the cater enters an inventory adjustment transaction to account for the number of bottles consumed.

- **Adjustment Account** – Select an account for this adjustment.

Usually, this is an expense account for inventory adjustment.

- **Date** – This field is populated with today's date. You can enter or select another date.

- **Posting Period** – Select the posting period on which you want this transaction to post.

- **Memo** – (Optional) Enter a short memo for this adjustment.

Memos appear only on account registers and on the account detail report.

Classification

(Optional) To classify transactions, you can select values in the following fields: **Department**, **Class**, or **Adjustment Location**.

Adjustments

1. **Item** – Select the item you want to adjust inventory for.

The description, quantity on hand, and current value of the item appear in the appropriate fields.

2. **Location** – If you track locations, select a location.

The description, quantity on hand, and current value of the item adjusts based on your selected location.

3. **Units** – If you use the Multiple Units of Measure feature, select the unit of measurement for the quantity fields.

The stock unit from the item record shows here by default.

4. **Adjust Qty By** – Enter the number of items to adjust the inventory by.

You can use either a positive or negative number to represent the change in inventory. The updated quantity appears in the **New Quantity** column.

5. **Est. Unit Cost** – Enter the cost of each item being added to the quantity on hand.

If you entered a negative number in the **Adjust Qty By** column, you cannot enter a value in this column. The cost of the items being removed from the quantity on hand is calculated.

6. For serialized or lot-numbered items, do one of the following to enter the quantity by which you want to adjust each lot or serial number.

- In the **Serial/Lot Numbers** column, enter the serial or lot numbers separated by a comma or a space. Multiple lot numbers must be entered with the quantity in parenthesis, in the following format: Lot#(Quantity).

Example: **Lot101(10), Lot102(20)**

- If you use the Advanced Bin/Numbered Inventory Management feature, click the Inventory Detail icon to enter the applicable details on a popup window: numbers, quantities, expiration dates, and bins. Skip step g.

7. For items that use bins, do one of the following to enter the quantity by which you want to adjust the inventory in each bin:

- If you use the Bin Management feature, in the **Bin Numbers** column, click the field, and then click the Bins icon. On the popup window, enter the quantity for each bin you want to adjust, and then click **Done**.

Alternatively, you can directly enter the bin with the quantity in parenthesis, in the following format: Bin#(Quantity). Separate multiple bins with a comma.

Example: **Bin101(50), Bin102(43)**



Note: You can enter only bins associated with the item, which are listed on the Bin Numbers subtab of the item record. See [Setting Up Item Records for Bins](#).

- If you use the Advanced Bin/Numbered Inventory Management feature, click the Inventory Detail icon to enter the bins and quantities on its popup window.

8. **Memo** – (Optional) Enter a short memo for this line item.

9. Click **Add**.

The **Estimated Total Value** field shows the total value of the change in your inventory.

To add more items, repeat steps 1 to 9.

After you save your adjustment, the current cost is determined and your adjustment totals are reported. You can access the associated item records to view the updated inventory details.

Creating an Inventory Worksheet

Inventory Worksheets enable you to enter changes to the quantity or value of inventory items other than lot numbered items, serial numbered items, or inactive items. You can enter adjustments for up to 1,000 line items at a time. However, be aware that the exclusive nature of the adjustment described in the following paragraphs applies to all items you adjust on the worksheet.

Note: Depending on your requirements, you may be able to use the [Single Inventory Worksheet Import](#) to automate the creation of an inventory worksheet. For this import, you submit inventory adjustment data in a CSV file.

Adjustment Exclusive of Previous Stock Totals

Adjustment amounts on the Adjust Inventory Worksheet form do not change as of the worksheet transaction date. The stock count is adjusted to remain at the level indicated by the worksheet on the worksheet date.

For example, you took a physical count of your inventory on January 1st, 2008. You want to enter that count. You do not want that count changed in the future due to transactions entered prior to the inventory count date. When you enter an inventory worksheet adjustment, the count remains the same as of the date of the worksheet.

For another example, you can enter an adjust inventory worksheet dated 10-25-08 and show 10 of your item Deluxe Widget in Location One. You then create an invoice dated 10-24-08 which sells two Deluxe Widgets from Location One. The quantity of the Deluxe Widgets at Location One on 10-25-08 remains at 10, as determined by the inventory worksheet.

Costing History is Averaged

When you use the Adjust Inventory Worksheet with **LIFO** or **FIFO** costing, the cost of any item you adjust is averaged. NetSuite ignores LIFO or FIFO, and your costing history is lost. To preserve **LIFO** or **FIFO**, use Adjust Inventory for any inventory adjustments. If you use the average costing method, you can make any changes you want on this worksheet.

Calculating On Hand Quantities

Inventory transactions with the same date are calculated in a particular order to find the On Hand quantity of an item. An inventory worksheet transaction posts at the start of the transaction date. Any additional inventory transactions on that date affect its figures.

NetSuite uses the default order transactions to calculate this quantity:

1. Adjust Inventory Worksheet, Distributions

Worksheets can also be set to post as the last transaction of the day. For details, read about the Order in Day field below.

2. Adjust Inventory transaction

3. Receive Purchase Order
4. Bill Payment
5. Bill Credit
6. Item Fulfillment
7. Invoice, Cash Sale
8. Credit Memo, Return Authorization Item Receipts

For example, you enter an invoice dated 1-1-08 selling a quantity of 1 of your item Deluxe Widget. Later, you enter an inventory worksheet dated 1-1-08 with Deluxe Widget showing a quantity of 5 on hand. The On Hand count on 1-1-08 is 4 Deluxe Widgets.

In another example, you enter an inventory worksheet dated 3-13-2008 with Deluxe Widget showing a quantity on hand of 15, valued at \$75. Then, you run an inventory report dated 3-13-2008 with Deluxe Widget showing a quantity on hand of 15, valued at \$75.

- If you enter a cash sale for 5 widgets dated 3-12-08 and then run an inventory report, you see 15 Widgets on hand. They are valued at \$75 as of 3-13-08.
- If you enter a cash sale for 5 widgets dated 3-13-08 and then run an inventory report, you see 10 Widgets on hand. They are valued at \$50 as of 3-13-08.



Note: If you enter a backdated inventory worksheet, you may not see the adjustment immediately on associated records and reports. A scheduled task adjusts the affected quantities based on the new quantity and transactions dated on or after the inventory worksheet date.

Adjusting the quantity of an assembly item changes the quantity of the assembly only. It does not change the quantity of individual member items.

Changing Inventory Adjustment Worksheets

When you open an existing inventory adjustment to make changes, only items included in the original adjustment appear in the list. The list shows all items from the original adjustment and cannot be filtered to exclude any of these original items.

Showing all items from the previously saved worksheet ensures that no lines are filtered out and deleted upon saving changes.



Important: When processing transactions, you must submit one page at a time. If you do not submit each page individually, information is not saved and can be lost when you switch between pages. To process multiple pages of information, always submit each page individually.

To use the adjust inventory worksheets:

1. Go to Transactions > Inventory > Adjust Inventory Worksheet.
The Inventory Worksheet page appears.
2. For OneWorld accounts, in the **Subsidiary** field, select the subsidiary you want to associate with this adjustment.
3. Set values in fields of each of the following sections or subtabs: **Primary**, **Classification**, and **Adjustments**.
4. Click **Save**.

Primary

- **Reference #** - If enabled, you can enter a unique number to identify and track of your adjustments.

This number appears on register and account detail reports.

Note: If you use auto-generated numbering, a reference number can be manually entered if you allow the override of auto-generated numbers for an inventory adjustment. Otherwise, the reference number is generated and cannot be changed after the transaction is saved. See the help topic [Set Auto-Generated Numbers](#).

- **Adjustment Account** – Select an account for this adjustment.

Usually, this is an expense account for inventory adjustment.

- **Estimated Value** – This field shows the total value of the change in your inventory. When you submit the adjustment worksheet, the current cost is determined from your inventory database and your adjustment totals are updated.

Estimated Total Value = sum(new Value) - sum(Value As Of Date Above)

The Estimated Total Value represents the changed valuation of the worksheet transaction, not the new value for the items. So, you have an item with an on hand value of \$25. You adjust it using the worksheet to have a new value of \$100. After you save the worksheet, the estimated total value of the worksheet is \$75, not \$100.

- **Transaction Order** - Select one of the following options for when you want to post this worksheet:

First in Day – This option posts the worksheet at the beginning of the day and does not include additional inventory transactions entered during that day.

Last in Day – This option posts the worksheet at the end of the day and includes all inventory transactions entered during that day.

- **Date** – This field is populated with today's date. You can enter or select another date.

- **Posting Period** – Select the posting period on which you want this transaction to post.

- **Memo** – (Optional) Enter a short memo for this adjustment.

Memos appear only on account registers and on the account detail report.

Classification

- (Optional) To classify transactions, you can select values in the following fields: **Department** or **Class**
- **Location** – Select the location where you need to make inventory adjustments.

When you select a location, the quantities of items in that location show in the list at the bottom of the page.

Adjustments

1. In the **Inactive** field, select one of the following options to filter the list of items:

- Select **No** to exclude inactive items from the list.
- Select **Yes** to show only inactive items in the list.
- Select **All** to show both active and inactive items in the list.

Serialized items and lot numbered items do not show in this list whether they are active or not.

2. In the **New Qty** column, enter a new total quantity for the item.

Note: If you use LIFO or FIFO costing, the cost of any item you adjust is averaged. NetSuite ignores LIFO or FIFO, and your costing history is lost.

3. In the **New Value** column, you can change the auto-calculated new total value for the item.



Note: If you use LIFO or FIFO costing, the cost of any item you adjust is averaged. NetSuite ignores LIFO or FIFO, and your costing history is lost.

4. For items that use bins, you can do one of the following to enter the quantity by which you want to adjust each bin:

- If you use the Bin Management feature, in the **Bin Numbers** column, click the field, and then click the Bins icon. On the popup window, enter the quantity for each bin you want to adjust, and then click **Done**.

Alternatively, you can directly enter the bin with the quantity in parenthesis, in the following format: Bin#(Quantity). Separate multiple bins with a comma.

Example: **Bin101(50), Bin102(43)**



Note: You can enter only bins associated with the item, which are listed on the Bin Numbers subtab of the item record. See [Setting Up Item Records for Bins](#).

- If you use the Advanced Bin/Numbered Inventory Management feature, click the Inventory Detail icon to enter the bins and quantities on its popup window.

To enter values for another item, repeat steps 1 to 4.

After you save the worksheet, your inventory is updated. You can access the associated item records to view the updated inventory details.

To view your inventory worksheets, go to Transactions > Inventory > Adjust Inventory Worksheet > List.

Inventory Sales and Fulfillment

When a customer commits to buying an item, you record it as a sales transaction. When you physically take the item out of inventory and ship it to the customer, you record it as a fulfillment. Selling and fulfilling items from your inventory affects your stock levels, accounting records and item commitment.

This section examines how your inventory is affected by the sales and fulfillments processes of the inventory workflow. For sales processes, it examines the impact on commitment and your general ledger. It covers fulfillment processes, such as handling backorders, reallocating items, closing line items manually, and those within the Pick, Pack, and Ship feature.

See the following topics in this section:

- [Selling Inventory](#)
- [Fulfilling Inventory](#)
- [Handling Backorders](#)
- [Avoiding Underwater Inventory](#)

Selling Inventory

Record inventory sales by adding an item to a sales transaction. Sales transactions that affect inventory levels include sales orders, invoices, and cash sales.

When you add an item on a sales order, the inventory record for the item is automatically checked to see if the item is available. By default, available items are committed from your inventory and reserved for

that customer. Because sales are integrated with inventory records, inventory records are automatically updated with each sale.

Selling an item affects information tracked on the item record. If the item can be filled from the quantity available:

- the item is committed to the sale
- the quantity committed increases
- the quantity available decreases
- the cost of goods sold increases

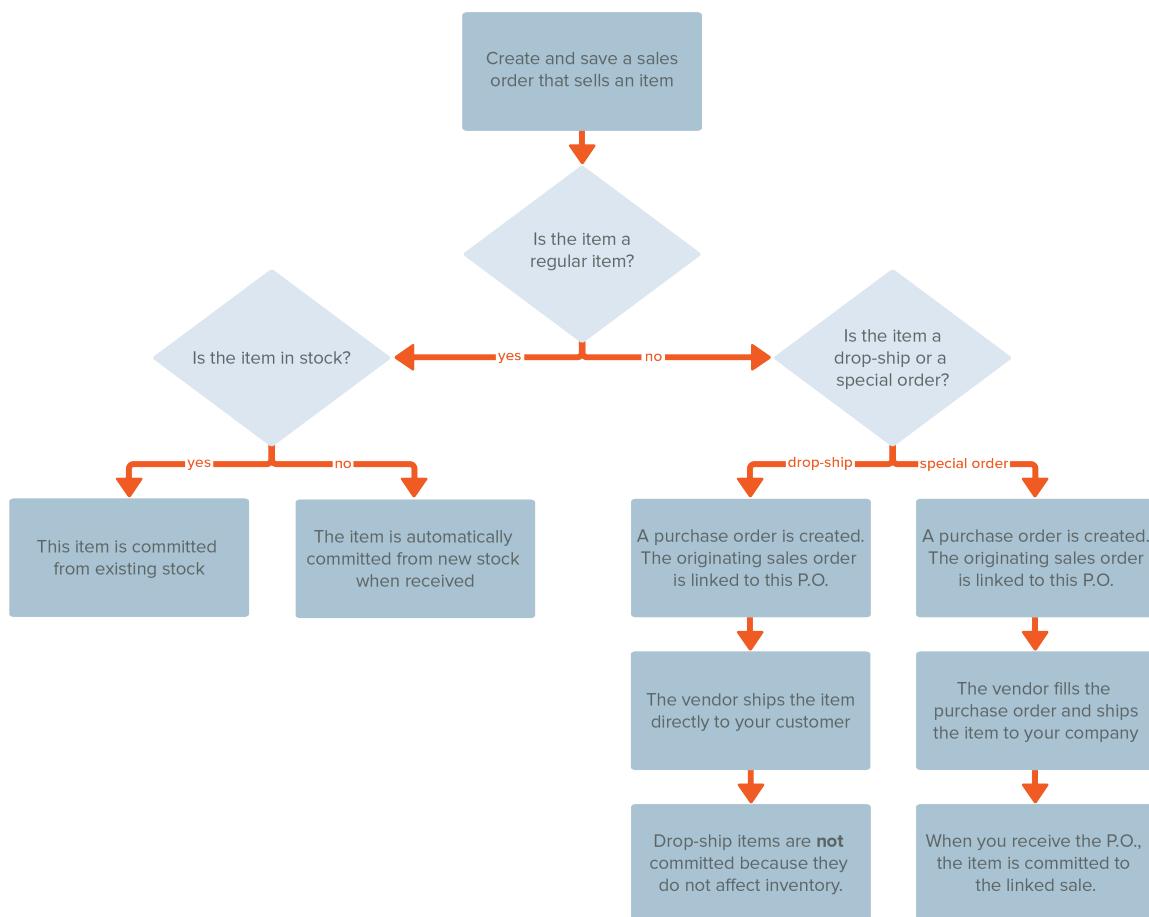
If the item cannot be filled from the quantity available, then the quantity backordered increases.

If you set the Perform Item Commitment After Transaction Entry preference, inventory items are committed as you enter or approve each transaction. See the help topic [Order Management Accounting Preferences](#) or [Committing Orders](#).

Inventory Sales and Item Commitment

Item commitment is the method used to track what you promise to deliver to your customers. Based on the items on a sales order, NetSuite tracks how much of each item you sell. It calculates how much has been sold and how much can be ordered. It shows which sales orders to fulfill first when you receive more stock.

Depending on stock level and item type, items can be committed either when they are sold or received. The flowchart below explains how items are committed:



When you commit an item on a sales order, the number of items committed increases by the ordered quantity.

For example, you currently have 100 widgets available and on hand with no outstanding orders. When you create a sales order for 70 widgets, you can commit the ordered quantity. Your available quantity adjusts to 30 widgets (on hand quantity of 100 - quantity committed on orders of 70).

Item commitment for drop ship and special order items works differently from commitment for regular items. When you set an item to drop ship or special order on a sales order, it is not committed. It also does not immediately affect your item commitment count. See the help topics [Drop Ship Items](#) and [Special Order Items](#).

Availability, Ship Complete and Item Commitment

By default, you commit available items to an order. On the Items subtab of an order, you can change the default commit option. You can choose to commit items only when an entire order or line item can be fulfilled. You can also manually defer commitment. In the Commit column, you can select one of the following:

- **Available Qty** - Items for this line item are committed as available. Available items are shipped, and items that are not available are placed on backorder.
- **Complete Qty** - This line item only ships when all items are committed.
- **Do Not Commit** - Items are not committed to this line item until this setting is changed.

You can also set transaction line items to ship only when completely available. For customers who prefer to receive orders only when they are completely fulfilled, check the **Ship Complete** box. This option is on the Financial subtab of the customer records.

For example, your customer Bob buys widgets and widget covers from you. Bob cannot use the widgets without the covers, and he prefers that you send them to him all together. You mark Bob's customer record as Ship Complete.

When Bob orders 20 widgets and 20 widget covers, you have 20 widgets in stock, but only 15 covers. Because Bob's order is marked Ship Complete, it does not appear in the fulfillment queue to send a partial fulfillment. After all 20 widgets AND all 20 widget covers are available together, Bob's order appears in the fulfillment queue.

You can also set an individual order to ship only when all items are available, even if the customer record is not marked. To ship an order only when all items are available, check the Ship Complete box on the Shipping subtab of the transaction.

To fulfill orders in bulk, filter the list of orders to show only orders that can be completely fulfilled. Select **Respect Ship Complete** in the **Filter By** field.

Inventory Sales and General Ledger Accounts

Not only is the commitment of items to customers tracked in your account, but inventory values are also tracked in your general ledger. When you sell items, the total value of the inventory sold is deducted from your Inventory Asset account. The total cost of the inventory sold is added to your Cost of Goods Sold (COGS) account.

Use reports to monitor the value of your inventory assets on hand. You can also determine if you have too much cash tied up in stock on hand. For more information, read [Inventory Value Assessments with Reports](#).

Enhanced Item Allocation

If you use the Demand Planning feature, read [Demand Planning and Inventory Allocation](#) for more information about automating item commitment.

Fulfillment

After you have recorded a sale, you need to get the product to your customer. Enter a fulfillment each time you physically take an item out of inventory and ship it to the customer. For more information, read [Fulfilling Inventory](#).

Fulfilling Inventory

An item fulfillment is a transaction that specifies that you shipped some or all items on an order to the customer.

How each fulfillment is processed depends on whether you use the Advanced Shipping feature.

- If you do not use the Advanced Shipping feature, the fulfillment and invoicing processes are combined. When you fulfill an item, you create a customer invoice for it simultaneously, based on the fulfillment.
- If you do use the Advanced Shipping feature, you have separate processes to fill orders and bill customers. Then, you can track your shipments separately from creating invoices.



Note: Order fulfillments should always be entered against sales orders to track the status of items and orders.

For more information on enabling the Advanced Shipping feature, read the help topic [Items and Inventory Features](#).

Fulfilling Items Without Advanced Shipping

After you ship items to the customer, process the order by fulfilling the items and creating an invoice for them.

When an order is fulfilled without Advanced Shipping:

- An Item Fulfillment record is created.
- Inventory records are updated with new quantities.
- The total value of the inventory fulfilled is deducted from your Inventory Asset account.
- A customer Invoice is created.

If you do not use the Advanced Shipping feature, you can bill a customer for only the items you ship. This is because sales orders are fulfilled and billed in the same transaction. You can partially fulfill a sales order and any items fulfilled are also be billed.

Fulfilling Items Using Advanced Shipping

Advanced shipping gives your shipping and accounting departments separate processes for fulfilling and billing sales orders. Your shipping department fulfills part or all of a sales order when it is ready to ship. Then, your accounting department creates an invoice or cash sale for the shipped items and rendered services.

With advanced shipping, you can track partial shipments and invoice customers for partial or entire orders.

When an order is fulfilled with Advanced Shipping:

- An Item Fulfillment record is created.
- Inventory records are updated with new quantities.
- The total value of the inventory fulfilled is deducted from your Inventory Asset account.

Using Advanced Billing with Advanced Shipping

When you use Advanced Billing and Advanced Shipping features, processing orders is based on whether items on orders can be fulfilled or received.

Some item types have a permanent status that enables or disables them to be fulfilled or received. Other item types allow you to set the status for always fulfilling and receiving them, or never doing so. Item statuses can be set as follows:

- **Always Fulfillable/Receivable** – Assembly, Kit, Inventory, and Non-inventory items.
- **Never Fulfillable/Receivable** – Group, Description, Discount, Markup, Payment, and Download items.
- **Allows Changes to Fulfillable/Receivable Status** – Gift Certificate, Other Charge and Service items.

Fulfillment Reporting

To access information on items and orders that need to be fulfilled, you can go to the Reports tab and view these reports:

- **Items Pending Fulfillment** – This report shows all open transaction lines for items on sales orders, grouped by item. For each item, the report shows the quantity ordered, quantity fulfilled and quantity committed.
- **Sales Orders Pending Fulfillment** – This report shows all open transaction lines for items committed and ready to be fulfilled on sales orders, grouped by sales order.

Closing Lines on Fulfillments

If an order includes items that are not yet fulfilled and you do not plan to fulfill them, you should close those transaction lines. For more information, read the help topic [Closing Line Items That Will Not Be Fulfilled](#).

Handling Backorders

You can track backorders for items not in stock. Integrated item receipts and fulfillments enable you to handle backorders.

You can commit backordered items from items that you receive on purchase orders. After you commit items on backorder, you can process them for fulfillment.

For example, you enter a sales order for 5 quantities of item #XY123. The quantity on hand of item #XY123 is zero, so you end up with 5 backordered items.

When you receive 50 quantities of item #XY123 on a purchase order, you can commit 5 of them to the sales order. Then, you can process the sales order for fulfillment.

While committed orders are still open, you can change these commitments to fill other open orders. To adjust these commitments, you can use the Reallocate Items form.

For more information about inventory replenishment and reallocation, see [Basic Inventory Management](#) or [Reallocating Items](#).

If you use the Demand Planning feature, you can automate backorder item allocation. Read [Demand Planning and Inventory Allocation](#).

To track items that are backordered, you can go to the Reports tab and click either:

- **Sales Back Order Report** – shows items that are backordered grouped by transaction. For each transaction, the report shows the transaction number and date, item name, and customer name. It also shows the quantity ordered, quantity fulfilled, quantity back ordered, quantity on hand and quantity on order.
- **Inventory Back Order Report** – shows items that are backordered grouped by item. The report lists the backorder transaction number, customer name, quantity ordered, quantity fulfilled, and the quantity backordered for each transaction.

Avoiding Underwater Inventory

Selling an item when the data shows that you do not have the item in stock is known as an “underwater” sale. Inventory is in an underwater state when the on-hand quantity of the item is below zero. You should avoid entering an item on a sale transaction if the on hand count of the item is zero or a negative amount.

Problems can arise if you enter sale transactions over a period when an item is underwater. NetSuite has difficulty calculating the cost of the item on those sale transactions. These cost calculations from underwater sales can lead to skewed results for reports and inventory data.

When the on hand count is below zero, costing information at the time of the sale is shifted to another date. The estimated cost is calculated based on the last known cost when the item was in stock.

At a later date when more of the item is received into stock, the true cost can be calculated. Then, you can post an adjustment to correct for transaction lines entered when the item was underwater. However, because the adjustment posts with the item receipt, the correction does not post with the original estimated cost.

For example, consider the following scenario where inventory is sold underwater:

- On March 30, an invoice is entered that sells 100 widgets and brings the on hand count of widgets to -100 widgets.
- Based on historical costing, the cost of the widgets is estimated at \$10 each. Therefore, the cost of goods sold for the 100 widgets = $(\$10 \times 100) = \1000 .
- On April 2, a purchase is entered for 100 widgets at a cost of \$12 each. The actual cost of the widgets is $(\$12 \times 100) = \1200 . An adjustment of \$200 is entered to correct the purchase price of the widgets.

After you enter a purchase that brings an underwater item count back above zero, the costing adjustments entered balance totals across affected periods. However, when viewing reports by period, sales and purchases posting in different periods may still shift the cost results from one period to another.

Consider the balance for March and April **combined**. The total balances because the *sale* in March and the *purchase* in April (that includes the adjustment) are **both** included.

However, if you consider **only sales** in the month of March. The total is off by \$200 because the adjustment that posted with the item receipt does not show in the totals. If you consider **only purchases** for the month of April. The total is off by \$200 because the adjustment is included in the total without the sale.

If you do not enter purchases to bring the item count back above zero, the costing estimates remain in the system. For example, a costing estimate can be \$0.00 if there is no purchase history. However, this can cause larger adjustments after you enter a purchase to bring the item count back above zero.



Important: The time between the underwater item sale and the purchase that brings the count above zero, the more skewed your data and reports.

For example, an item is underwater only three days before you enter a purchase that brings it back above zero. Reports and data will be less skewed than if an item is underwater for three months.

Why should I care about selling underwater inventory?

- **Data is less accurate** – When you have underwater items in your inventory, your inventory data is less accurate. Inaccurate inventory data can affect other aspects in NetSuite and can potentially skew data in your chart of accounts, reports, and other areas.
- **Transactions are more confusing** – Purchases that include costing estimates are often confusing for users who are not familiar with the costing workflow for underwater sales. Sorting out transactions associated with underwater sales can be time consuming and counterproductive.
- **Records are less fit for audits** – Transactions that include underwater items also include estimates and adjustments. These transactions are less likely to be well received by auditors.

How can I tell if I am selling underwater inventory?

You can tell if you are selling underwater inventory by the following:

- The sale transaction shows a negative on-hand count of the item
- You receive a warning that the item is not in stock

It is best to focus concern on the point in your workflow at which items leave your inventory. For example, your workflow can include entering sales orders and then fulfilling them. Because items do not leave stock when you enter the sales order, your focus is not on that transaction. However, when you enter the fulfillment, items do leave stock and you need to be cautious that the fulfillment does not include underwater items.

How can I avoid selling underwater inventory?

You can avoid being in an underwater state with inventory items by following these tips:

- Insist on prompt entry of item receipts.
- Require item receipts to be entered with the date of receipt.
Enter receipt date instead of the entry date if the receipt is not entered the same day it is received.
- Always use sales orders to sell inventory.
- Always fulfill orders from sales orders.
- Set the **Fulfill Based on Commitment** preference to **Limit to Committed**.
For more information on this preference, see the [Order Management Accounting Preferences](#).
- Avoid entering standalone cash sales and invoices.

Standalone transactions have no commitments or checks and balances to prevent you from selling out or going underwater.

- Use the Inventory Level Warnings preference.

This preference gives you instant feedback on each transaction as to whether you have items in stock. For more information on this preference, read [Setting the Inventory Level Warnings Preference](#).

- Perform a physical inventory count on a regular basis to assess whether your inventory data is consistent with the physical count of your stock.

If the physical count is different from the quantity on hand based (item record), the count must be reconciled to match actual inventory levels.

- Use the Review Negative Inventory page to identify inventory items that are underwater.

To learn more, see [Reviewing Negative Inventory](#).

Reallocating Items

Depending on your order preference setting for item commitments, you can automatically allocate items from inventory to commit them to fill orders. Inventory can be automatically committed in the following cases:

- As you enter or approve a sales order, NetSuite can automatically commit inventory from the item's available quantity.
- When you receive items from your vendors, inventory can be automatically committed to fill backorders.
- Inventory that you generate from assembly work orders can be automatically committed to open orders.

For more information about order preferences, see the help topic [Order Management Accounting Preferences](#).

You can use the Reallocate Items page to redistribute your inventory items between open orders.

For example, you commit 70 out of 100 widgets from your available quantity to a sales order. However, you get an incoming order for 50 widgets from an important customer. You can reallocate the items committed to the previous order to fill the new order.



Note: If you use the Demand Planning feature, you can automate some item commitment processes. For details, see [Demand Planning and Inventory Allocation](#).

To reallocate items:

1. Go to Transactions > Order Management > Reallocate Items.
2. On the Reallocate Items page, select the item you want to reallocate in the **Item** field.
3. Select a **Location**.

A list of open orders for the item appears.

The current Quantity On Hand, Quantity Committed, and Quantity Required to fulfill all orders is displayed at the top of the page.

The orders pending fulfillment for this item are listed, showing the Order Number, Date, Customer, Quantity Ordered, Quantity Remaining, and the current Quantity Committed.

4. To commit items to an order, check the box in the **Commit** column.

5. Clear the box in the **Commit** column to release items from commitment to the order.
- Any changes update the **Uncommitted** quantity that displays above the **Auto Commit** button.
6. In the **Quantity Committed** field, accept, increase, or reduce the number of items committed to each order.

The total Quantity Committed of all orders cannot exceed the Quantity On Hand.

- To automatically commit any available items to sales orders, click the **Auto Commit** button.
- Items are committed to sales orders based on order of entry. For example, the oldest sales order has items committed first.
- The **Quantity Required** field displays the quantity needed for the item you select in the **Item** field. This amount is calculated as Quantity Committed + Backorders.
- If you use Pick, Pack and Ship, the **Quantity Picked** displays the committed quantity that has already been picked and packed for the item. If you use Multiple Location Inventory, this quantity displays per location.
- If you use Multiple Units of Measure, the **Units** field displays the applicable unit.

7. Click **Submit**.

You can view the updated committed quantities on the orders. When you reallocate items and commit less than the complete quantity, NetSuite adjusts the Commit column setting of the order. The setting switches from the Complete Qty to the Available Qty status for the affected order lines.

You can also view the updated inventory levels on item records.

Inventory Count

The Inventory Count feature supports improved tracking of inventory and tighter control over assets. When this feature is enabled, you can enter regular periodic counts of on-hand item quantities to maintain inventory accuracy. Keeping an accurate item count can help reduce required safety stock, which lowers your overhead costs.

To use this feature, first define the Next Count Date and your intended Count Interval in days on an item record. NetSuite then uses this information to calculate when that item needs to be counted.

You can create an inventory count in two ways:

- [Creating Calculated Inventory Counts](#) – Use NetSuite's calculated list of items to create one or more inventory counts that are due.
- The Create Inventory Count page shows a list of items that are due to be counted. Check the box in the Select column next to each item you want to count, or check the All Items box to count all items that meet your specified criteria. When you click Submit, the inventory count is recorded.
- [Creating Manual Inventory Counts](#) – Manually create an individual inventory count for an item.

After an inventory count is created, click Start Count on the record to begin the process. NetSuite takes a snapshot of the on-hand count of the items to be counted. After a manual count of items has been completed in the warehouse, the count data can be entered in NetSuite using the Inventory Count form. Click Edit on the count and enter the number of items on hand. You can edit and change the count data on a count form multiple times until the count is marked Complete.

When the inventory count transaction status is set to Started, a snapshot of the inventory on hand quantity is taken from the system for comparison. If you continue to process inventory changes while the counting activities are occurring, please note these changes. Please include these changes when you enter the Count Quantity into the inventory count transaction.

A completed count can be reviewed to be approved or rejected. A rejected count must be counted again by the warehouse manager. An approved count generates variances to account for any quantity differences between the original snapshot and the final count.

For items using calculated inventory counts, when you return to the item record of an item you have completed a count for, the Inventory subtab shows count data, including the last count date and next count date.

The Advanced Bin/Numbered Inventory Management feature must be enabled to support inventory counts of serialized or lot numbered items.

Setting Up Inventory Count

To use the inventory count feature complete the following procedures:

- [To enable inventory count:](#)
- [To set up preferences:](#)
- [Setting Up Item Records for Inventory Count](#)

[To enable inventory count:](#)

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. Check the **Inventory Count** box.
4. Click **Save**.

[To set up preferences:](#)

1. Go to Setup > Accounting > Accounting Preferences.
2. Click the **Items/Transactions** subtab.
3. In the **Default Inventory Count Account** field, select the default account you want to show in the **Account** field on inventory count records.
Typically an expense account, this account is used to post inventory count variances to.
4. Click **Save**.



Note: You can enable the Show Display Name with Item Codes preference to view both the item name and display name of an item on inventory count records. To set this preference in your account, go to Setup > Company > General Preferences. For more information, see the help topic [Setting General Account Preferences](#).

Setting Up Item Records for Inventory Count

If you want NetSuite to calculate inventory count information for an item, you need to set up the item record to do so.

You can use the Import Assistant to create new item records or update existing ones for the inventory count fields. See the help topic [Importing CSV Files with the Import Assistant](#) or [Items Import](#).

[To set up an item record for inventory count:](#)

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to the name of an inventory or assembly item.
3. On the item record, click the **Purchasing/Inventory** subtab.
4. On the **Purchasing/Inventory** subtab, click the **Locations** subtab.
5. Enter or select values in the following inventory count fields:



Tip: If you use the Multi-Location Inventory feature, you can fill out these fields for each location.

- In the **Next Count Date** field, enter the date of the next planned inventory count for this item. NetSuite uses this date to determine and calculate when a count is required.
- In the **Count Interval** field, enter the total number of days between required counts. For example, if you enter **30**, NetSuite calculates the date a count is required based on 30 day intervals.
- (Optional) In the **Classification** field, select the inventory classification. You can sort the list to create inventory counts based on classifications you select in this field.

6. Click **Save**.

After the count date and interval are recorded for an item, NetSuite uses them to calculate when a count is required. When a new count is due to be recorded, it shows in the list on the Create Inventory Count page.

Creating Calculated Inventory Counts

After the count date and interval are recorded for an item, NetSuite uses them to calculate when a count is required. When a new count is due to be recorded, it shows in the list on the Create Inventory Count page.

To create calculated inventory counts:

1. Go to Transactions > Inventory > Create Inventory Count.
2. Select a location.
3. Enter or select a **Count Start Date**.
This filters the list to show only items that require a count on or after the date entered in this field.
4. Enter or select a **Count End Date**.
This filters the list to show only items that require a count on or before the date entered in this field.
5. Optionally choose a Item classification to filter the list.
6. Check the **Count Bin Rows With Zero Quantity** box to include in the list items with an on-hand count of zero.
7. Check the **Sort Rows by Bin** box to sort the item list by bin number instead of by item number. This can be useful to count all items in a specific area of a warehouse.
8. Select an account to post variances to. This is typically an expense account.
You can choose an account to show in this field by default. For details, read [Setting Up Inventory Count](#)
9. Check the box in the **Select** column next to each item you want to count.



Note: If you use bin management, an item does not appear in the list if it uses bins and has no prior transaction history.

10. Click **Submit**. When you click **Submit**, the inventory count transaction is recorded, but not started.

After an inventory count is on record, it has an Open status and is a non-posting transaction.

To edit an inventory count:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **Edit** next to the count you want to change.
3. Make necessary edits to the record.
4. Click **Save**.

Starting an Inventory Count

Read more about starting an inventory count in the topic [Working with an Inventory Count](#).

Creating Manual Inventory Counts

After the count date and interval are recorded for an item, NetSuite uses them to calculate when a count is required. When a new count is due to be recorded, it shows in the list on the Create Inventory Count page.

To create manual inventory counts:

1. Go to Transactions > Inventory > Enter Inventory Count.
2. Select a location.
3. Optionally enter a reference number for this transaction.
4. Verify or select a date for this transaction.
5. Choose an account to post inventory count variances to. This is generally an expense account. You can choose an account to show in this field by default. For details, read [Setting Up Inventory Count](#).
6. If you track departments or classes, optionally select them. (Note that this Class field is distinct from the inventory classification used for calculated inventory counts.)
7. Optionally enter a memo for this transaction. Later you can search for this transaction using the text in this field.
8. On the **Items** subtab, choose an item to count.
9. Verify or select the bin for this item.
10. Verify or select the unit for this item.
11. Optionally enter a memo for this line item.
12. Click **Add**.
13. Repeat these steps for each item you want to count.
14. Click **Save**.

When you click **Save**, the inventory count transaction is recorded, but not started. After an inventory count is on record, it has an Open status and is a non-posting transaction.

To edit an inventory count:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **Edit** next to the count you want to change.
3. Make necessary edits to the record.
4. Click **Save**.

Starting an Inventory Count

Read more about starting an inventory count in the topic [Working with an Inventory Count](#).

Working with an Inventory Count

After an inventory count is recorded, you must complete these steps:

1. Start the count to begin the process of recording count data.
2. Edit the count record to enter count numbers for items.
3. Complete the count to record the final number counted for each item on the count.
4. Approve or reject the final count.

To start an inventory count:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **View** next to the count you want to start.
3. Click **Start Count**.

When you click **Start** on an Open status inventory count, NetSuite takes a snapshot of the on-hand count of the items to be counted by bin and serial number. This data is recorded on the count.

An inventory count with a status of Started can be reviewed and edited by the warehouse manager. Data in quantity fields can be edited, but items cannot be added to or deleted from the count.

To edit the count record:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **Edit** next to the count you want to work with.
3. Based on the physical count numbers taken in your warehouse, record the number actually counted in the **Count Quantity** field. Repeat this for each item you count.



Note: When the inventory count transaction status is set to **Started**, a snapshot of the inventory on hand quantity is taken from the system for comparison. If you continue to process inventory changes while the counting activities are occurring, record the changes and include them when you enter the **Count Quantity** into the inventory count transaction.

4. After entering data on a started count, click **Save** to come back and complete the count later.

To complete an inventory count:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **View** next to the count you want to complete.
3. Click **Complete Count**.

Until an inventory count is completed, you cannot start a new inventory count for that item.

Two inventory adjustment transactions are created for the count:

- One positive inventory adjustment (more on hand)
- One negative adjustment (less on hand)

When you return to the item record of an item you have completed a count for, the Inventory subtab shows the following:

- Last Count Date – Date when the last count occurred
- Next Count Date – System calculated next date to enter an item count
- Count Interval – Preset count interval



Note: After a count transitions to the Complete/Pending Approval status, the supervisor can approve or reject the count entered.

To approve or reject an inventory count:

1. Go to Transactions > Inventory > Enter Inventory Count > List.
2. Click **View** next to the count you want to complete.
3. Do one of the following:
 - Click **Reject** – The count status returns to Started and the warehouse manager must conduct another count.
 - Click **Approve** – The count is final and the status becomes Approved.

Inventory Count History

After Approval, the Inventory Count record shows a History subtab that includes an Inventory Adjustments subtab which shows all adjustments related to this count.

Multi-Location Inventory

If you stock, sell, and fulfill items in more than one location, you can use the Multi-Location Inventory feature to manage the inventory for your distinct locations. This feature lets you associate each item and transaction with a location. You can track the purchase, sale, stock level and value of items in your locations, as well as transfer inventory between locations.

Serialized Inventory for Multiple Locations

When you use multiple locations to track inventory, you track serial numbers by location. A serial number can be in stock at only one location. Make sure that transactions with serialized items must have the correct location selected.

For the purchase of new serialized items, you must select a location and enter the serial numbers you want to receive. The quantity of serial numbers entered must equal the quantity of received items.

For the sale of serialized items, you can only sell a serial number from the location where it is in stock. If you attempt to sell a serial number from an incorrect location, you get notified when you try to save the transaction. If you have customized your forms to select inventory locations per line item, entering a serial number automatically selects the correct location where the number is located.

Fulfillments for Multiple Locations

If you use the Intercompany Cross-Subsidiary Fulfillment feature, changing locations on partially fulfilled order lines can cause out-of-sync inventory counts. You should split items into multiple lines on each order by location.

For example, you have an order line for Item #2345 with quantity of 30. Location A is selected on that line. You fulfill only 20 of the items from Location A and you want to fulfill the rest from Location B. Instead of changing the location on that fulfillment line, you should close that line on the sales order. Then, you can edit the order to add a new line for the remaining quantity of 10 and assign it to Location B. After you edit the order, you can fulfill it from Location B.

Multi-Location Inventory Setup

To set up Multi-Location Inventory, see the following topics:



Important: Before you enable the Multi-Location Inventory feature, you must fully ship or otherwise close all open orders.

After you enable the **Multi-Location Inventory** feature and distribute items, you cannot turn the feature off without contacting Customer Support.

- [Enabling Features for Inventory Management](#)
- [Inventory Setup with Locations and Multi-Locations](#)
- [Creating Locations](#)
- [Distributing Inventory](#)
- [Non-Available Inventory Settings for Locations](#)
- [Setting the Inventory Level Warnings Preference](#)

When you enable Multi-Location Inventory, you can enable additional inventory management features and gain access to capabilities, as follows:

- [Item Settings and Stock Levels for Multi-Locations](#)
- [Returned-Item Costing Using Multi-Location Inventory](#)
- [Transferring Inventory](#)
- [Inventory Replenishment and Withdrawal](#)
- [Bin Management](#)
- [Advanced Item Location Configuration](#)
- [Advanced Inventory Management](#)

Item Settings and Stock Levels for Multi-Locations

After you distribute existing unallocated inventory or when you enter new item records, you can configure item settings per location. On item records, you can set a preferred location, reorder point, and preferred stock level. You can also view quantities or inventory levels.

To access item records, go to Lists > Accounting > Items. From the Items list, you can do the following:

- **Set details on item records** - When you edit an inventory item, you can choose a preferred location, set a reorder point, and specify your preferred stock level. You can set these values on **Locations** subtab of the **Purchasing/Inventory** subtab.
- For detailed instructions, see the help topic [Locations](#).
- **View Stock Levels of All Inventory Items** – In the **View** field of the Items list, you can select **Stock** to view the preferred location along with following total quantities across all locations per item:
 - **Quantity On Hand** – the number of units of an item in stock
 - **Quantity On Order** – the number of units of an item pending receipt from a vendor
 - **Quantity Committed** – the number of units of an item reserved by unfulfilled sales orders
 - **Reorder Point** – the stock level at which a new order for the item needs to be placed
When an item reaches its Reorder Point, a reminder is generated to purchase the item.
 - **Preferred Stock Level** – optimum quantity to maintain in stock of an item
Along with the reorder point, this quantity is used to determine your replenishment needs on the Order Items page.
- **View Stock Levels of Individual Inventory Items** – When you view an inventory item, you can view the stock level details per location. You can also view the purchase price and total value (the number of items in stock multiplied by the purchase price).



Note: If you sell items online with a NetSuite Web Store, you cannot designate a single location for your Web Store inventory. Your Web Store shows the quantity on hand for all locations combined, including locations such as In Transit, Consignment, and international warehouses. See the help topic [Item Availability](#) or [Shopping Preferences](#).

Returned-Item Costing Using Multi-Location Inventory

With the Multi-Location Inventory feature, the method for tracking costs for items returned by customers depends on when you started using NetSuite.



Important: Using the new costing method can affect historical costing. For example, costing on some or all historical transactions may be recalculated using the new method in the following cases:

- When you edit an existing transaction and save it
- When NetSuite performs a requested inventory costing calculation correction

For more details on ways the new costing method may affect historical costing, please contact NetSuite Customer Support.

- If you began using NetSuite with Version 2007.1.0, NetSuite uses the exact cost from the original sale for returns that are linked to the sale. This is true even if the sale is associated with a different location than it is returned to. If you are not restocking, NetSuite uses the average cost at the location you are returning to.
- If you began using NetSuite *prior to Version 2007.1.0*, returned-item costing uses the cost identified for the location it is being returned to.

For example, costs for widgets at two locations are as follows:

- Location A widget cost: \$10
- Location B widget cost: \$12

If a widget is sold from Location A and is returned to Location B, what is the cost tracked for the returned widget?

- If you began using NetSuite with Version 2007.1.0, the returned-item cost shows as \$10.
- If you began using NetSuite prior to Version 2007.1.0, the returned-item cost shows as \$12.

If your account uses the older returned-item costing method but you would prefer to use the new method, you can choose to activate exact costing by location for returned items in your account. For more information on changing returned-item costing in your account, please contact NetSuite Customer Support.

For serialized inventory, if the item return is not linked to a sale or if the exact-cost preference is not set, NetSuite applies the average cost at that location for the serial number on the return. If the serial number has not been received at that location, then the cost applied is zero. In this case, you must use the Return Cost Override field on the item receipt to enter the correct cost.

For more information about item costing, see the help topic [Item Return Costing](#).

Advanced Item Location Configuration

When you use the Inventory and Locations features, certain attributes about each item are associated with locations. These attributes include information about the item's cost, stock levels, supply management, and more. To best access and manage large amounts of item data, you can enable the Advanced Item Location Configuration feature, which offers the advanced management of assigning and maintaining item attributes associated with locations.

Using the Advanced Item Location Configuration feature, you have the ability to filter the location information that displays on item records to make item attribute data more accessible.

The following are shown by default:

- Only show locations where attributes have been assigned
- Only show locations where inventory activity occurred or transactions have been entered

Then you are able to filter by subsidiary and location, as well as choose preset View filters such as Costing, Inventory Planning, and more.

You can also set up template items to simplify item record creation. For example, set up a template item with standard packaging attributes you generally assign to items. Later, when you add a new packaging item, you can copy the attributes over from the template item.



Note: Enabling the Advanced Item Location Configuration feature removes the limitation of having a maximum allowance of 100 location records. To add or update item location attributes through CSV import, see the help topic [Item Location Configuration Import](#).

Enabling Advanced Item Location Configuration

To use Advanced Item Location Configuration, you must enable the feature.

Note that this feature requires that the Multi-Location Inventory feature is also enabled. For details about this feature, read [Multi-Location Inventory](#).

The location attributes that will display for items depends on the features you have enabled.

For details, read [Advanced Item Location Configuration](#).

To enable Advanced Item Location Configuration:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. In the **Inventory** section, verify that the **Multi-Location Inventory** feature is enabled. Check this box if it is not.
4. In the **Items** section, check the **Advanced Item Location Configuration** box.
Enable this feature for advanced management of item attribute information that is associated with each location. This helps you filter to access only the data you need for specific locations.
5. Click **Save**.

Using Advanced Item Location Configuration

After you have enabled the Advanced Item Location Configuration feature, when a new item record is added, no data shows on the Locations subtab of the item record at first. This is because no attributes have been added yet to the record and no inventory transactions have been entered. Location data shows only after attributes have been assigned or inventory transactions resulting in on-hand balances have been entered. For details, read [Working with Item Location Attributes](#).

After item location attributes are assigned or inventory balances exist in a location , make selections in the following fields on the Locations subtab of an item record to determine which locations show on the subtab and which columns of information show for each location in the list.

Note: Using the Advanced Item Location Configuration feature, locations do not display data for serial or lot numbered inventory. You must open the Inventory Detail for an item to view serial or lot numbered inventory data.

Subsidiary Filtering

Note: This field shows only in NetSuite OneWorld accounts.

In the Subsidiary field, select a subsidiary to filter the list to show only the selected location. To select more than one subsidiary , make a selection and then hold down the Shift key while clicking additional selections.

After making your selections, the locations and item attribute data show at the bottom of the subtab.

Location Filtering

In the Location field, select a location to filter the list to show only the selected location. To select more than one location, make a selection and then hold down the Shift key while clicking additional selections.

After making your selections, the locations and item attribute data show at the bottom of the subtab.

View Filtering

In the View field, select the custom list view you want to use to view the contents of this subtab. The view you select determines the item data displayed for each location.

Standard list views include the following:

- Costing
- Inventory
- Inventory count
- Order management
- Other
- Planning
- Planning times

To create a new custom list view, click Customize View. Custom views allow you to view a list based on the results of saved search criteria. After a custom view is created, it shows in the View list for selection.

Working with Item Location Attributes

After you have added subsidiaries or locations on an item record, you can specify the attributes for that item that are specific to each location. The details below describe how to add a location and assign specific attributes.

 **Note:** The Subsidiary field shows only in NetSuite OneWorld accounts.

To add a location to an item record:

1. Open the item record.
2. On the **Locations** subtab, click the **Add Location** button.
The Item Location Configuration window opens.
3. Enter a **Name** for the location.
4. Select the appropriate **Subsidiary**.
Your selection in this field determines the choices available in the **Location** field. Only locations associated with the chosen subsidiary will show.
5. Select the **Location** you want to add.
6. Optionally add a **Memo**. Later, you can search for the text you enter here.
7. Complete the steps below to assign item attributes for the location.

You can assign or edit the particular attributes for a location.

 **Important:** When you first associate a subsidiary on an item record, you must save the item record to add the subsidiary before you add location attributes for the newly added subsidiary.

To assign or edit item location attributes:

1. Open the item record.
2. On the **Locations** subtab, click **Edit** next to a location.

The Item Location Configuration window opens.

After item location attributes are assigned, you can change them later, if needed. Read [Edit Item Location Attributes](#).

Duplicate Item Attributes from a Single Location

When you use the Advanced Item Location Configuration feature, you are able to copy the item attributes that exist in a single location to duplicate them in another location. The attributes can be copied to another location on the same item record, or to a location on another item record.

To duplicate item attributes from a single location:

1. Open the item record that contains the attributes you want to copy.
2. On the **Locations** subtab, click the **Duplicate** link next to the location you want to copy.

The Duplicate Single Location window opens. It enables you to duplicate attributes from one location on a source item to target items and locations.



Note: For NetSuite OneWorld accounts, the target items and locations must be in the same subsidiary as the source.

3. Under the **Source** heading, the source item and source location are displayed. The item and location displayed are the source from which location attributes are derived.
- The attributes associated with this item in this location are displayed at the bottom of the window.
4. Check the box next to one or more attributes to duplicate them from the source location to the target.

Check the box to the left of the Field column heading to select all shown attributes.



Note: Attribute values shown in this window are display only, they cannot be changed here.

5. Under the **Target** heading, make selections to determine which items and locations that attributes will be copied to.

- a. Click the **Item** field.

- i. Enter or select one or more items to determine which items the attributes are copied to.
- ii. Click the **Select Multiple** icon to open the Choose Item window and select more than one item.

If the source item is a different item type than the target item, data in extraneous fields is copied over but does not affect calculations. For example, if the source item processed is a time-phased planning item but the target item is not a time-phased planning item, fields relevant to time-phased planning will be populated on the target item but the data is not used for calculations.

- iii. Click **Done** after selecting items.

- b. Click the **Location** field.

This list displays only locations that are not yet assigned.

- i. Select one or more locations to determine which locations the attributes are copied to.

Check the **Select All Locations** box to choose all locations.

- ii. Click the **Select Multiple** icon to open the Choose Location window and select more than one location.
Click a location in the left side of the window to select the location and move it to the right side.
 - iii. Click **Done** after selecting locations.
6. After all target items and locations are selected, click **Submit**.

When the form is submitted, a bulk process to update the item attribute records begins. After the process is complete, a confirmation page displays the processed item location configurations.

Duplicate Item Attributes from Multiple Locations

When you use the Advanced Item Location Configuration feature, you are able to copy the item attributes that exist in multiple locations for a single item to multiple locations for other items. One or more attributes can be copied from the source locations to the target items and the selected locations.

To duplicate item attributes from multiple locations:

1. Open the item record that contains the attributes you want to copy.
2. On the **Locations** subtab, click the **Duplicate Multiple Locations** button next to the location you want to copy.
The Duplicate Multiple Locations window opens. It enables you to duplicate multiple attributes and locations on a source item to target items.
3. Under the **Source** heading, the source item is displayed. This item is the source from which location attributes are derived.
4. Under the **Source** heading, choose one or more source locations in the **Location** field.
Check the **Select All Locations** box to select all available locations.
Click the **Select Multiple** icon to open the Choose Location window add multiple source locations.
Click the **Done** button after making your selections.
The attributes associated with this item in the selected locations are displayed at the bottom of the window.

5. Under the **Target** heading, make selections to determine which items that attributes will be copied to.

1. Click the **Item** field.
 - a. Enter or select one or more items to determine which items the attributes are copied to.
 - b. Click the **Select Multiple** icon to open the Choose Item window and select more than one item.



Note: If the source item is a different item type than the target item, data in extraneous fields is copied over but does not affect calculations. For example, if the source item processed is a time-phased planning item but the target item is not a time-phased planning item, fields relevant to time-phased planning will be populated on the target item but the data is not used for calculations.

- c. Click **Done** after selecting items.
6. After all source locations and target items are selected, click **Submit**.

When the form is submitted, a bulk process to update the item attribute records begins. After the process is complete, a confirmation page displays the processed item location configurations.

Edit Item Location Attributes

After you have set up attributes for an item location, you can make changes to that configuration.

To edit item location attributes:

1. Open the item record.
2. On the **Locations** subtab, click **Edit** next to a location.

The Item Location Configuration window opens and displays the attributes for that location.



Note: Only attributes relevant to the item are accessible. For example, data on the Planning subtab is available only if the item is a time-phased item.

3. Click the **Name** field to edit the item name.
4. Optionally add a **Memo** to the record.
5. The **Location** field displays the location that this record identifies attributes for.
For details about all fields available on this record, read the help topic [Locations](#).
6. Click the **System Information** subtab to view details about changes made to the Item Location Configuration record.

Bin Management

You can use bin management to identify places in your warehouse where you store inventory items. Bins help you track on-hand quantities within a warehouse. Tracking items by bins can help organize receiving items and simplify picking items to fulfill orders.

For example, if you use bins, when you receive a purchase order, the order provides which bin to put the items away in. Then, your stock level of that item in that bin is tracked.

When you enter the item on a sale, you can specify the bin to pull the item from based on available quantities. This helps warehouse employees know exactly where to go to find the quantity of items they need when picking and fulfilling an order. They also know exactly what items need to be put away, or stocked, and where, after they are received from vendors.

There are two NetSuite features for bin management:

- **Bin Management** – A basic means of tracking inventory in bins. This feature requires that you associate bins with items before you can use bins on transactions. This feature does not allow using bins with serialized and lot numbered items or on a per-location basis.
[Read Basic Bin Management](#).
- **Advanced Bin / Numbered Inventory Management** – An enhanced version of tracking bins, including for serial numbered and lot numbered items and on a per-location basis. Using this feature, you are not required to pre-associate bins with items to use bins on transactions. Also, you can associate bins with serialized and lot numbered items or use bins on a per-location basis.
[Read Advanced Bin / Numbered Inventory Management](#).

The information in the following sections apply whether you use the Bin Management or the Advanced Bin / Numbered Inventory Management features.



Note: Some sections below mention various preferences available to be used with bins. To learn more, see [Setting Bin Preferences](#).

Putting Away Items in Bins

To put away an item immediately, you can edit the quantities placed in each bin. If you set the **Use Preferred Bin on Item Receipts** preference, all items are placed in the preferred bin for that location by default.

To put away an item later, set the quantity for the preferred bin to zero. The item is included with the preferred bin number on the putaway sheet.

Read more in the topic [Bin Putaway Worksheet](#).

Receiving with Bins

When a purchase order or customer return is received, bin numbers are included on the following transactions:

- Cash Refunds
- Credit Card purchases
- Checks
- Vendor Bills
- Inventory Adjustments
- Inventory Transfers

Bins on Sales

When a sales order is placed by a customer, the bin numbers are included on the following transactions:

- Picking tickets
- Item fulfillments
- Invoices

After an item is added to one or more bins, you can transfer items between bins, if needed. For more information, read [Bin Transfers](#).



Important: If you use the Bin Management and the Multi-Location Inventory features, you must either use bins in all locations or in no locations.

When you use bins with Bin Management, all locations must have at least one bin. If you use the Advanced Bin / Numbered Inventory Management and the Multi-Location Inventory features, you can use bins on a per-location basis. Any location that uses bins must have at least one bin.

Bins on Picking Tickets

Your employees can print the picking tickets to automatically find the bins for the items needed to fill the order. Bins are included on a picking ticket using the following logic:

- If the preferred bin has sufficient quantity to pick item, only the preferred bin is printed on the picking ticket.

- If you need multiple bins to meet the item quantity, each bin is listed on the picking ticket, with the preferred bin listed first.
- If the preferred bin has zero quantity, and no other bin has quantity to pick all items, bins appear in order of descending quantity.
- Only bins with quantity greater than or equal to the quantity ordered are printed on the picking ticket.
- A Bin Number column is only included on a picking ticket if the ticket includes items with associated bin numbers.

A picker can pull a quantity from a bin different from what is listed on the picking ticket. However, the picker should edit the quantity taken from each bin on the item fulfillment page.

Data Per Bin

Using either bins feature, item costing is not calculated per bin. Only on-hand quantity is tracked per bin. Available, committed, backordered, and ordered quantities are also not tracked per bin.

Specifying Bins on Transactions

Bins are required on all cash sales, invoices, and negative inventory adjustments with bin items. This is true with any state of the **Require Bins on All Transactions Except Item Receipts** preference.

For example, you enter a cash sale with a bin item that specifies a location. The item is required to have at least one bin in that location. Also, when you enter an inventory adjustment, any line that deducts a quantity of an item that uses bins will require a bin.

When you edit an existing sale transaction that has a bin item but no bin specified, bins must be specified on the transaction.

If you do not specify a bin, you see the notice: "The number of bins entered (0) is not equal to the item quantity (x)".



Note: NetSuite does not require bins on positive adjustments or purchases because you can use a Bin Putaway Worksheet later. This is true unless the **Require Bins on All Transactions Except Item Receipts** preference is enabled.

Bins and Assembly Items

If you use the Assembly Items feature, you must designate a bin for any component item in a build which uses bins. If a parent assembly item uses bins, you must designate a bin for that item to unbuild it.

You are not required to designate a bin for a member item in an unbuild or for an assembly item in a build. This is true unless the **Require Bins on All Transactions Except Item Receipts** preference is enabled.

Basic Bin Management

Use the Bin Management feature to track inventory items in warehouse locations, or bins.

For example, you can set up bin records that identify specific places within in your warehouse, such as Bin A and Bin B. Then, on an item record, you can associate the item with Bin A and Bin B. Next, when you add the item to a transaction, you can specify a bin to use. You can specify Bin A on an item receipt when you receive the item from the vendor. You can specify Bin B on a sales order when you sell the item. Your warehouse staff knows exactly where to go in the warehouse to retrieve an item needed for an order. It also tells them where to stock the item when it is received.

To use the Bin Management feature with items on transactions, you must first associate one or more bins with each item. For more details on bin preferences and setup, read [Setting Up Item Records for Bins](#).



Note: The basic Bin Management feature does not permit you to use bins with serial or lot numbered items or on a per-location basis.

You can read more about the basic Bin Management feature in the topic [Bin Management](#). This topic covers particulars that apply to both the basic Bin Management feature and the Advanced Bin / Numbered Inventory Management feature.

Bin Management is the basic bin tracking feature. You can also read about the [Advanced Bin / Numbered Inventory Management](#) feature.

Advanced Bin / Numbered Inventory Management



Important: The functions discussed in this topic require an administrator to enable the Advanced Bin / Numbered Inventory Management feature.

The Advanced Bin / Numbered Inventory Management feature is an enhanced version of tracking inventory in bins. This feature includes serial numbered and lot numbered items on a per-location basis.

The Advanced Bin / Numbered Inventory Management feature includes functionality that is not available in the Bin Management feature.

No Pre-association Requirement

Use bins on transactions without being required to pre-associate bins to items. This lets you put away items using the Bin Putaway Worksheet, even if bins are not associated with those items.

- The Bin Management feature requires you to associate a bin with the item on the item record. You must do this to select the bin for that item on transactions.
- The Advanced Bin / Numbered Inventory Management feature lets you use any bin for any item. You do not have to identify the bin on the item's record. However, you can associate bins with any item on the item record. Then, those bins show in the Associated bins list on transactions. You can also set a preferred bin for an item.

Use Bins for Serialized and Lot Numbered Items

When you also use the Lot Tracking or Serialized Inventory features, you can assign bins to serial numbered items and lot numbered items. To set one these bins as your preferred bin, see the help topic [Lot, Serial, and Bin Numbering](#).

If you use basic Bin Management, you cannot associate serial or lot items with bins.

Use Bins on a Per-Location Basis

When you also enable the Multi-Location Inventory feature, you can use bins at only specific locations. For example, you can set warehouse and store locations to use bins to track inventory. You can also choose to not use the Advanced Bin Management functionality at your head office location.

If you use basic Bin Management, you cannot use bins on a per-location basis.

For more information, see [Bin Management by Location](#).

Subtabs Available

Depending on the item type, item records show the following subtabs on which you can track on hand and available quantities:

- **Inventory Detail** – For items that use bins, this subtab shows the quantities for inventory numbers within each bin.



Note: To display the inventory numbers on hand, you can select Inventory Numbers on Hand in the View field. Items that you do not put away are not included in the on-hand count at the bin level.

- **Bin Numbers** – Shows the quantities for each bin
- **Inventory Numbers** – Shows the quantities for each inventory number within a location

Inventory Detail Subrecord



Note: The inventory detail subrecord on item records display on-hand and available quantities in five decimal places, whereas it displays those on transactions in eight decimal places. If you want to get these quantities with eight decimal places from the inventory detail subrecord through scripting, saved search, or formula, use the [Inventory Balance Search](#). Otherwise, you might get a mismatch between the quantity values.

A popup selector is available for choosing a bin for an item. Click the **Inventory Detail** icon on records and transactions to filter the bins list, choose a bin, and enter a quantity.

The **Inventory Detail** icon shows in one of two ways:

- **Arrow** – The arrow icon indicates that the inventory detail is available for the item and needs to be configured. It appears only in Edit mode for a transaction.
- **Check mark** – The check mark icon indicates that you have already configured the inventory detail for this item. It appears in View mode for transactions, or in Edit mode after you configure the inventory detail.

After you click the **Inventory Detail** icon, enter the following in the popup window:

- If the item is numbered, in the Serial/Lot Number list, select the appropriate number.
- In the Bin list, select the bin you want the items put into. The Bin column displays the preferred bin by default. The list of available bins to select updates based on the transaction's associated location.

The popup window includes filters to limit bin choices available for selection within a large set of bins. These filters include the following:

- All bins
- Preferred bin
- Associated bin

If the associated transaction adds to your on-hand inventory, the following filters also appear:

- Bins with quantity
- Previously used Bins

In the Inventory Detail popup window on bin transfers, you can also specify the originating bin and receiving bin.

Inventory Details for Inventory Status

When you use the Inventory Status feature, a Status field appears in the Inventory Detail popup window. Use this field verify or select the status for the items on the associated transaction.

Inventory Details for Serial and Lot Numbered Items

When you use serial or lot numbered items, additional buttons are provided in the Inventory Detail popup window.

When you click the **Inventory Detail** icon, you see the following options to enter multiple numbers at the same time:

- **Express Entry** – You can click this button to use a text box to cut and paste numbers to increase and decrease inventory. When you click OK, the inventory detail populates in the list.
- **Autogenerate Numbers** – For inventory increase transactions, you can use this button to generate a list of serial or lot numbers. Inventory increase transactions include item receipts and assembly builds for assembly completions.

Choose settings in the following fields to define the numbering used:

- Prefix** – the prefix of the serial or lot numbers
- Minimal Digits** – the least amount of digits to be used
- Starting Number** – the first serial or lot number in the sequence
- Quantity** – the quantity to enter for each inventory number

The Inventory Detail icon is available on the following transactions when the feature is enabled:

- Assembly Build
- Credit Card Charge
- Credit Card Refund
- Cash Refund
- Cash Sale
- Check
- Credit Memo
- Invoice
- Inventory Adjustment
- Inventory Distribution
- Inventory Transfer
- Inventory Worksheet
- Item Receipt
- Item Fulfillment
- Assembly Unbuild
- Vendor Bill
- Vendor Credit
- Sales Order
- Work Order
- Transfer Order
- Purchase Order
- Return Authorization

- Vendor Return Authorization
- Bin Transfer
- Bin Putaway

Permissions for the inventory detail subrecord are inherited from its parent transaction. For example, to edit the inventory detail from a sales order, you must have permission to edit the sales order. For more information, see the help topic [Standard Roles Permissions Table](#).

You must enable and set up the Bin Management feature to use Advanced Bin / Numbered Inventory Management with your inventory. When you enable the Bin Management feature, note the following:

- You cannot associate serial numbers or lot items with bins.
- If it is enabled together with Serialized Inventory or Lot Tracking features, you cannot associate serial or lot numbers to bins.
- When you enable the Advanced Bin/Inventory Management feature, you can associate serial or lot numbers to bins.

For additional details, read [Setting Up Bin Management](#).

For information on using SuiteScript with this feature, see the help topic [Using SuiteScript with Advanced Bin / Numbered Inventory Management](#).

For information on using SOAP web services code with this feature, see the help topic [Updating SOAP Web Services Code When Advanced Bin / Numbered Inventory Management is Enabled](#).

Bin Management Upgrade



Warning: If you also use both the Lot Tracking and Serialized Inventory features, note the following. It is very important to perform a bin management upgrade immediately after you enable the Advanced Bin / Numbered Inventory Management feature.

Any item that is lot or serial numbered and uses bins is not placed in a bin. These items must be manually reassigned to a designated bin using a bin putaway worksheet. To learn more, see [Bin Putaway Worksheet](#).

Setting Up Bin Management



Important: The functions discussed in this topic may require the Advanced Bin / Numbered Inventory Management feature to be enabled.

To set up bin management:

1. Choose one of the following:
 - [Enabling Basic Bin Management](#)
 - [Enabling Advanced Bin / Numbered Inventory Management](#)
2. [Setting Bin Preferences](#)
3. [Creating Bin Records](#)
4. [Setting Up Item Records for Bins](#)

After you complete all steps, you are ready to use bins with items on transactions.

Enabling Basic Bin Management

Complete these steps to enable bin management:

To enable bin management:

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. Click the **Items & Inventory** subtab.
3. Check the **Bin Management** box.



Note: Using Bin Management requires you to enable the Inventory feature. If you have not already done so, check the Inventory box.

If you use Bin Management with the Multi-Location Inventory feature, you must use bins in all locations.

Enabling Advanced Bin / Numbered Inventory Management

The functions discussed in this topic require the Advanced Bin / Numbered Inventory Management feature to be enabled.

You must enable the feature to use Advanced Bin / Numbered Inventory Management with your inventory.

If you use either Lot Tracking or Serialized Inventory, note the following. You cannot disable Advanced Bin / Numbered Inventory Management after you enter a transaction for a serial or lot item which uses bins.



Warning: If you use SuiteScript in conjunction with the basic Bin Management feature, note the following. These scripts will no longer function after you enable the Advanced Bin / Numbered Inventory Management feature.

To learn more, see the help topic [Using SuiteScript with Advanced Bin / Numbered Inventory Management](#).

You should update related SOAP web services code when you enable this feature. To learn more, see the help topic [Updating SOAP Web Services Code When Advanced Bin / Numbered Inventory Management is Enabled](#).

To enable the Advanced Bin / Numbered Inventory Management feature:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. To enable Advanced Bin / Numbered Inventory Management, you must enable the **Inventory** feature in addition to one or more of the following features:
 - **Bin Management**
 - **Lot Tracking**
 - **Serialized Inventory**
4. Check the **Advanced Bin / Numbered Inventory Management** box.
5. Click **Save**.

Bin Management Upgrade



Warning: If you also use both the Lot Tracking **and** Serialized Inventory features, note the following. It is very important to perform a bin management upgrade **immediately** after you enable the Advanced Bin / Numbered Inventory Management feature.

Any item that is lot or serial numbered and used bins is not placed in a bin. These items must be manually reassigned to a designated bin using a bin putaway worksheet. For details read [Bin Putaway Worksheet](#).

Bin Management by Location

When you use the Multi-Location Inventory and Advanced Bin / Numbered Inventory Management features, note the following. You can enable bin management by location by setting only specific locations to use bins.

For example, you can set your warehouse and store locations to use bins to track inventory. You can also choose to not use the Advanced Bin Management functionality at your head office location.

Enabling Bin Management by Location

Identify which locations should use the Advanced Bin Management feature by checking the **Use Bins** box on the location record. For more information on setting locations to use bins, read the help topic [Creating Locations](#).

When you use bin management by location, the list of available bins to select on transactions and forms updates based on the associated location.



Note: When you check the **Use Bins** box, any existing item or new item with pending transactions is not placed in a bin.

These items must be manually reassigned to a designated bin using a bin putaway worksheet. For more information, see [Bin Putaway Worksheet](#).

All pending items must be placed in bins using the bin putaway worksheet and there can be no pending inventory transactions for the location.

When you complete these tasks, NetSuite prompts you to enter bin information on all subsequent transactions.

Bin Management for Kit/Package Items

Kit/package components appear on fulfillment records based on your bin management settings:

- For locations that use bins, fulfillment records display only kit components that use bins. You can enter inventory details to fulfill these components.
- For locations that do not use bins, fulfillment records do not display any kit components.

For information about kit/package items, see the help topic [Kit/Package Items](#) or [Updating Kits with Bins](#).

Setting Bin Preferences

To set bin preferences:

1. Go to Setup > Accounting > Preferences > Accounting Preferences.
2. Click the **Items/Transactions** subtab.
3. Choose one of the following for the **Use Preferred Bin on Item Receipts** preference:
 - When you enable this preference, the **Bin** field on item receipts defaults to the preferred bin instead of leaving the field blank.
 - Disable this preference if you prefer the **Bin** field to remain blank by default.
4. Choose one of the following for the **Require Bins on All Transactions Except Item Receipts** preference:
 - With this preference enabled, transactions that change inventory levels and include binned items must have a bin selected to save the transaction. If there is no bin field on a transaction, such as sales orders and purchase orders, bins are not required.
 - Editing a previously existing sale transaction that has a bin item but no specified bin require bin specification on the transaction.
 - Item Receipts do not require a bin selection with this preference enabled.
 - Disable this preference to allow transactions to be created that include items with no bin selected.



Note: With this preference disabled, NetSuite always requires bins on transactions where an item quantity is reduced. For example, on cash sales, item fulfillments, or negative inventory adjustments.

Bins are not required on transactions where an item quantity is increased, such as purchases and positive inventory adjustments.

For example, cash sales with bin items that specify locations requires the items to have at least one bin in that location. Also, when you enter an inventory adjustment, any line that deducts a quantity of an item that uses bins will require a bin.

5. Click **Save**.

Creating Bin Records

You can use bin records to define bin locations within a warehouse or stock room. Bin record numbers are associated with items and included on receiving and fulfilling transactions to keep track of inventory for each bin.

There is no limit on the number of bin records you can enter.

Item costing is not calculated per bin, and only on-hand and available quantities are tracked per bin. Committed, backordered, and ordered quantities are not tracked per bin.



Note: If you use the basic Bin Management feature with the Multi-Location Inventory feature, you must use bins in all locations. If you use the Advanced Bin / Numbered Inventory Management feature with the Multi-Location Inventory feature, you can use bins on a per-location basis.

To create bin records:

1. Go to Lists > Accounting > Bins > New.
2. In the **Bin Number** field, enter a number or code to designate a bin location in your warehouse or stock room.

For example, you can name rows and shelves in your warehouse by letter and bins by number. The first bin in the first shelf on the first row would be **AA01**.

3. If you use the Multiple Locations feature, select the location for this bin to designate where the bin is located.
You cannot change the location after you save the bin record.
4. In the **Memo** field, include further notes on the bin's location or notes on what should be stored in the bin.
5. Check the **Inactive** box to deactivate this bin record.
6. Click **Save**.

After you have created bin records, you can set up item records for use with bins. Read [Setting Up Item Records for Bins](#).

Setting Up Item Records for Bins

On each inventory item record that you want to track using bins, you need to set up the item record for use with bins. These are the two components of setting up items for bins:

- [Select to Use Bins](#) – Identify each item record as an item that uses bins. This is required whether you use either basic Bin Management or Advanced Bin / Numbered Inventory Management.
- [Associate Bins with Items](#) – On each item record, select the bins to be used for the item.
- This association step is required when you use basic Bin Management.
- This association step is optional when you use Advanced Bin / Numbered Inventory Management.

Select to Use Bins

The Bin Management and Advanced Bin / Numbered Inventory Management features require that each item record is marked to use bins.

To set an item to use bins:

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to the name of the item.
3. On the item record, click the **Purchasing/Inventory** subtab.
4. Check the **Use Bins** box.
5. Click **Save**.

Associate Bins with Items

After you set up bin records, you can associate these bins with inventory item records. To associate a bin with an item, from the list of bin records, select and add each bin where you store the item.

When a bin is associated with an item, it shows in bin lists for that item on transactions.

The Advanced Bin / Numbered Inventory Management feature does not require an association of bins with items to use bins on transactions.



Note: The Bin Management feature **requires** you to associate bins with an item before you can use bins on transactions for that item.

For example, you use basic Bin Management and you have checked the Use Bins box on item #AB001. However, you have not yet associated any bins. When you add item #AB001 to a transaction, no bins show in the bins list for the item.

Later, you edit the item record for item #AB001 and associate Bin #20, #21, and #22. Later on transactions, when you add item #AB001, you can select Bin #20, #21, or #22 from the list of bins for the item.

To associate bins with an item:

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to the name of the item.
3. On the item record, click the **Purchasing/Inventory** subtab.
4. On the **Bin Numbers** subtab, in the **Bin Number** field, select a bin to associate with this item.



Note: If you use the Multi-Location Inventory and Advanced Bin/Numbered Inventory features, you must first select a location in the Location field. The list of available bins to select in the Bin Number field is populated based on the selected location.

5. If this bin is the preferred bin, check the box in the **Preferred (Per Location)** column. The preferred bin is the default for the item on all receiving and fulfilling transactions, as well as the putaway worksheet.
You can set only one preferred bin per location.
6. Click **Add**.
7. Repeat steps 4 through 6 for each bin to associate with this item.
You can associate multiple bins with each item and associate multiple items with each bin.
8. Click **Save**.

If you use Advanced Bin / Numbered Inventory Management, the bins you chose show when you select Associated Bins in the bin selector.

When a bin item is included on a transaction, preferred bins are used as follows:

- If the preferred bin quantity can cover the transaction, the preferred bin is used.
 - If the preferred bin quantity cannot cover the transaction but another single bin can cover the transaction, that bin is used.
- Otherwise, you must configure the Inventory Detail record to process the transaction.
- When you issue work orders and an item's preferred bin does not have sufficient quantity, you can manually select another bin. Otherwise, you may encounter an error. For more information about work order issues, see the help topic [Entering Work Order Issues](#).

This applies only to non-serial numbered and non-lot numbered items which use bins.

Bin Putaway Worksheet

Use the Bin Putaway Worksheet to print a bin numbers list for items that need to be re-stocked in your warehouse or stock room.

Items appear on this list when an item that uses bins has a count greater than the combined on-hand count of its associated bins.

The printed putaway list includes the date, items to be put away, quantity, and the preferred bin number for each item. It also includes a blank area to make notes if items are placed in a bin other than the preferred bin.

How the worksheet looks and functions depends on whether you use basic Bin Management or use Advanced Bin / Numbered Inventory Management. Click a link below for more details:

- [Basic Bin Putaway Worksheet](#)
- [Advanced Bin Putaway Worksheet](#)

Basic Bin Putaway Worksheet

If you use the basic Bin Management feature, you can use the Bin Putaway Worksheet as described below.

After items are received, they need to be put away in bins. The putaway worksheet designates the bin or area in the warehouse where the item will be stocked.

More details on this worksheet are described in the topics [Bin Putaway Worksheet](#) and [Advanced Bin Putaway Worksheet](#).

To print a putaway list:

1. Go to Transaction > Inventory > Bin Putaway Worksheet.
2. The **Date** field defaults to today's date. You can edit this date to put away items from previous days.
3. If you use the Multi-Location Inventory feature, select your location.
4. In the **Memo** field, you can enter notes for this putaway sheet.
5. Click **Print Putaway List**.

To edit the putaway worksheet:

1. Go to Transaction > Inventory > Bin Putaway Worksheet.
2. The **Date** field defaults to today's date. You can edit this date to put away items from previous days.
3. If you use the Multi-Location Inventory feature, select your location.
4. In the **Memo** field, you can enter notes for this day's putaway sheet.
5. The **Quantity** column shows the total on-hand amount for each item at the location selected. Click this field to edit the total quantity.
6. The **Units** column displays the unit of measurement used to determine the on-hand quantity. Click this field to select a different unit of measurement.
7. The **Bins** column displays the bins associated with each item.
8. The **Bin Numbers** column displays the preferred bin by default.
 - If the total quantity is placed in the preferred bin, no edits are needed.
 - If some items were or will be placed in some of the other bins listed in the **Bins** column, click the **Bins** icon. Edit the quantity for each bin, and click **Done**.

You can also enter bin numbers separated by commas with on-hand quantities in parentheses. For example, you can enter **A101(50), A102(43)**.

9. Click **Save**.

Advanced Bin Putaway Worksheet



Important: The functions discussed in this topic require the Advanced Bin / Numbered Inventory Management feature to be enabled.

If you use the Advanced Bin / Numbered Inventory Management feature, you can use the Bin Putaway Worksheet as described below.

After items are received, they need to be put away in bins. The putaway worksheet designates the bin or area in the warehouse where the item will be stocked.

More details on this worksheet are described in the topics [Bin Putaway Worksheet](#) and [Basic Bin Putaway Worksheet](#).

To print a putaway list:

1. Go to Transaction > Inventory > Bin Putaway Worksheet.
2. The **Date** field defaults to today's date. You can edit this date to put away items from previous days.
3. If you use the Multi-Location Inventory feature, select your location.
4. In the **Memo** field, you can enter notes for this putaway sheet.
5. Click **Print Putaway List**.

To edit the putaway worksheet:

1. Go to Transaction > Inventory > Bin Putaway Worksheet.
2. The **Date** field defaults to today's date. You can edit this date to put away items from previous days.
3. If you use the Multi-Location Inventory feature, select your location.
4. In the **Memo** field, you can enter notes for this day's put away sheet.
5. The **Quantity** column shows the total on-hand amount for each item at the location selected. Click this field to edit the total quantity.
6. The **Units** column displays the unit of measurement used to determine the on-hand quantity. Click this field to select a different unit of measurement.
7. Click the icon in the **Inventory Detail** column next to an item to edit bin quantities.
8. In the Inventory Detail popup window, specify the bins and quantities to be put away as follows:
 1. If the item is numbered, in the **Serial/Lot Number** list, select the appropriate number.
 2. In the **Bin** list, select the bin you want the items put into.
The **Bin** column displays the preferred bin by default.
 3. In the **Quantity** field, enter the quantity of items to be put in this bin.
 4. Click **Add**.
 5. Repeat steps a - d to put away more of this item in other bins.
 6. Click **OK**.
9. Repeat steps 7 and 8 for any additional items you want to make changes to.
10. Click **Save**.

Bin Transfers



Important: The functions discussed in this topic may require the Advanced Bin / Numbered Inventory Management feature to be enabled.

You can record a bin transfer to move items between bins within a warehouse.

For example, at your East Coast location, you stock item #AB123 in two bins: bin #3003 and #4004. There are currently 100 of the item in each bin. You can enter a bin transfer to record the transfer of 50 items out of bin #3003 and into bin #4004.

Recording a bin transfer does not post to your chart of accounts and has no financial impact. The transfer only updates the quantity on hand in each bin for the items transferred.

On the bin transfer record, identify the item, the item's bin, the bin the item will move to, and the quantity to move.



Note: Bin transfers can move items only if they are already in one or more bins.

If you use the Multiple Units of Measure feature, you can view and edit the **Units** field on bin transfer records. If you select a unit other than stock units, inventory item quantities are converted automatically and saved in stock units.

The steps to record a bin transfer vary depending on which bins feature you use. For more information, see one of the following procedures:

- To record a bin transfer using basic bin management:
- To record a bin transfer using advanced bin/numbered inventory management:.

To record a bin transfer using basic bin management:

1. Go to Transactions > Inventory > Bin Transfer.
2. Verify or select the date.
3. If you use the Multi-Location Inventory feature, select a location.



Note: You can use this form only to transfer items between bins in the same location.

To transfer items between locations, you must enter an inventory transfer and set the bin at the new location. Read [Transferring Inventory](#).

4. Optionally enter a memo for this transfer. Then, you can search for the text entered here to find this transfer.
5. In the **Item** field, enter or select the item to transfer.
If one is set, the item's preferred bin appears.
6. Optionally, if you use the Multiple Units of Measure feature, select the unit of measure.
7. In the **From Bins** field, either enter or select one or more bins the item will be taken out of. This can be done using one of the below:
 - **Enter Text** – Enter a bin and quantity to transfer.
For example, to move a quantity of five out of Bin #101, enter **101 (5)**.
 - **Use the Bin Selector** – Click the **Open** icon to show a list of bins and enter a quantity to take out of each bin. For items that are associated with bins, only associated bins show in the list.

The quantity on hand shows for each bin.

Click **Done** to close the bin selector and add the amounts indicated to the transfer.

8. In the **To Bins** field, either enter or select one or more bins the item will be moved into. This can be done using one of the below:
 - **Enter Text** – Enter a bin and quantity to transfer.
For example, to move a quantity of five into Bin #102, enter **102 (5)**.
 - **Use the Bin Selector** – Click the Open icon to show a list of bins and enter a quantity to put into each bin. For items that are associated with bins, only associated bins show in the list.
The total quantity of items must match the amount in the Quantity field.
9. Click **Done** to close the bin selector and add the amounts indicated to the transfer.
10. The **Quantity** field sources the amount in the **From Bins** field and displays the quantity of the item being transferred.
11. Repeat steps 6 to 9 for each item you want to transfer between bins.
12. Click **Save**.

To record a bin transfer using advanced bin/numbered inventory management:

1. Go to Transactions > Inventory > Bin Transfer.
2. Verify or select the date.
3. If you use the Multi-Location Inventory feature, select a location.



Note: You can use this form only to transfer items between bins in the same location.

To transfer items between locations, you must enter an inventory transfer and set the bin at the new location. Read [Transferring Inventory](#).

4. Optionally enter a memo for this transfer. Then, you can search for the text entered here to find this transfer.
5. In the **Item** field, enter or select the item to transfer.
If a preferred bin is set for the item, it appears.
6. Optionally, if you use the Multiple Units of Measure feature, select the unit of measure.
7. Enter the quantity of the item being transferred.
8. Click the **Inventory Detail** button.
9. Complete these steps in the Inventory Detail popup window.
 1. If the item is serial or lot numbered, select the number to transfer.
 2. In the **Bin** field, select a bin the item will be taken out of.
 3. In the **To Bins** field, select a bin the item will be moved into.
 4. Click **Add**.
 5. Repeat the previous four steps for each transfer between bins for this item.
 6. Click **OK**.
10. On the Bin Transfer line, click **Add**.
11. Repeat steps 5 - 9 for each item you want to transfer.
12. Click **Save**.

Inventory Status

The Inventory Status feature enables you to associate attributes to items to drive internal processes. For example, you can create an Inspection status for items that are pending quality control inspection.

You can also choose to make inventory associated with each status available or unavailable to be allocated to orders. For example, you can create an unavailable status of Damaged to associate with items that should not be sold.



Inventory Status on Pages, Records, Searches, and Transactions

When you enter items on the following pages, records, and transactions, a Status field appears.

- Assembly Build
- Assembly Unbuild
- Bin Transfer
- Cash Refund
- Cash Sale
- Credit Memo
- Invoice
- Item Fulfillment
- Item Receipt
- Inventory Adjustment
- Inventory Detail (availability and behavior depends on its parent transaction)
- Inventory Status Change
- Inventory Transfer
- Vendor Bill
- Vendor Credit
- Work Order Completion
- Work Order Completion With Backflush
- Write Checks



Note: The Status field might appear on the transaction's associated Inventory Detail subrecord. For more information on the Inventory Detail subrecord, see [Inventory Detail Subrecord](#).

Available and on-hand inventory balances on the following records and searches are shown by inventory status.

- Inventory Balance Search
- Inventory Detail Search
- Inventory Item
- Lot Numbered Item
- Serialized Item

For more information on how inventory status affects available inventory balances, see [Tracking Inventory Balances By Status](#).

For more information, see the following topics on inventory status:

- [Setting Up Inventory Status](#)
- [Creating Inventory Status Records](#)
- [Changing the Inventory Status Associated With Items](#)
- [Inventory Allocation Based on Status](#)

Setting Up Inventory Status

If you use the Advanced Bin/Numbered Inventory Management feature, you can enable and set up Inventory Status.

To set up Inventory Status, complete the following procedures:

1. Enable the Inventory Status feature. See [Enabling Features for Inventory Management](#).
2. Create inventory statuses. See [Creating Inventory Status Records](#).

After you complete these procedures, you can associate items with an inventory status when you receive or adjust inventory. You can view the inventory status of items on supported transactions. See [Inventory Status](#).

Creating Inventory Status Records

Create one inventory status record for each status you want to be able to assign to items within your location.

Statuses can be in one of three states: default, active, or inactive.

When you enable the Inventory Status feature, a Good status is available by default. This status is associated with all existing and incoming items at all locations until a transaction changes an item's status. All inventory associated with this status is available to be allocated to orders. You can rename this status and add a description. You cannot delete this status.

Note: Existing fulfillment records for items with no available quantity cannot be assigned an inventory status. When inventory becomes available, you can update the fulfillment through one of the following ways:

- Create an inventory adjustment for the item, which also enables you to assign it an inventory status. Then, you can update the fulfillment to select the status for the available quantity.
- Remove the item from the fulfillment. When you fulfill the order again for the specific item, you can assign the status to the available quantity.

When you create inventory statuses, you can set them to be active or inactive. You cannot delete inventory statuses that you create. This is true unless the status you want to delete is not associated with any items on completed or pending transactions. If any non-default inventory statuses exist, you cannot disable the Inventory Status feature.

In the list of inventory statuses at Lists > Supply Chain > Inventory Status, the State column identifies the status: default, inactive, or active. A label with one of these three words also appears next to the status name on the inventory status record.

To search for inventory statuses, go to Reports > New Search > Inventory Status.

INACTIVE	EDIT VIEW	INTERNAL ID	NAME	DESCRIPTION	STATE
No	Edit View	1	Good		Default
Yes	Edit View	2	Inspection	Assign this status to items that are pending quality control inspection.	Inactive
No	Edit View	3	Damaged	Assign this status to damaged items that should not be sold.	Active

To create an inventory status record:

1. Go to Lists > Supply Chain > Inventory Status > New.
2. In the **Name** field, enter a name for this status.
The name you enter is the name that shows in inventory status lists on records and transactions.
3. To make on-hand inventory associated with this status available for NetSuite to commit to orders, check the **Make Inventory Available for Commitment** box.

If you prefer that on-hand inventory associated with this status is excluded from the available count, clear this box.

After a status is associated with items on completed or pending transactions, you cannot check or clear this box.



Important: This setting does not apply to items on drop shipments and special order purchases. Items with an unavailable status can be allocated to sales orders marked as drop shipments or special orders. You can also receive unavailable items on the associated purchase order created from a drop shipment or special order sales order. For more information on drop shipments and special orders, see the help topic [Drop Shipment and Special Order Purchases](#).

4. To make on-hand inventory associated with this status available for Supply Allocation to allocate to orders, check the **Make Inventory Available for Allocation** box.

If you prefer that on-hand inventory associated with this status is excluded from being allocated to orders using Supply Allocation, clear this box.

After a status is associated with items on completed or pending transactions, you cannot check or clear this box.



Note: This field shows only when the Supply Allocation feature is enabled in your account. For details, read [Supply Allocation](#).



Important: This setting does not apply to items on drop shipments and special order purchases. Items with an unavailable status can be allocated to sales orders marked as drop shipments or special orders. You can also receive unavailable items on the associated purchase order created from a drop shipment or special order sales order. For more information on drop shipments and special orders, see the help topic [Drop Shipment and Special Order Purchases](#).

5. Optionally enter a **Description** for this status.
6. Check the **Inactive** box to not show this status in search lists on records and forms.
7. Click **Save**.

For more information, see [Inventory Allocation Based on Status](#).

Changing the Inventory Status Associated With Items

Use the inventory status change transaction to change the status that is associated with items. This non-posting transaction enables you to move any quantity of one or more items from one status to another, without impacting your general ledger.

For example, you have 25 saleable bottles of water that are damaged. You create an inventory status change record to change the status of the 25 bottles from Good to Damaged. If the Damaged status record has the Make Inventory Available box cleared, the bottles associated with the Damaged status cannot be allocated for orders.

To change the inventory status associated with items:

1. Go to Transactions > Inventory > Inventory Status Change.
2. On the Inventory Status Change page, set values in the following fields:
 - **Inventory Status Change #** - If required, enter a reference number to identify this inventory status change. If you use the auto-generated numbering feature, a number is generated automatically when you save the change transaction. The **Transaction Number** field displays the transaction number. The auto-generated numbering feature prevents assigning duplicate numbers to transactions in NetSuite. This ensures that the number cannot be edited and cannot be duplicated. Auto-generated numbering for transactions is enabled by default and cannot be disabled.
 - **Date** - (Optional) You can change the default current date in this field.
 - **Location** - Select a location to associate with this inventory status change transaction.
 - **Previous Status** - Select the current status associated with the items you want to change.
 - **Revised Status** - Select the new status you want to associate with the items.



Important: When you update an item to an unavailable status, you should physically prevent these items from being picked in your stock room or warehouse.

- **Memo** - (Optional) Enter any additional information about this transaction.

When you search for transactions, you can search for specific words and phrases in the Memo field to find this status change transaction.

3. In the Items sublist, do the following:
 - a. In the **Item** column, select the inventory item for which you want to change the status.
 - b. (Optional) If you use the Multiple Units of Measure feature, in the **Units** column, select the unit of measure.
 - c. In the **Quantity** column, enter the number of units of the item for which you want to change the status.
 - d. For a lot-numbered item, a serialized item, or an item that uses bins, click the Inventory Detail icon to enter the following details: serial or lot number, bin, and quantity.
 - e. Click **Add**.

To add more items, repeat steps a to e.

4. Click **Save**.

You can access the associated item records to view the updated quantities per status.

Inventory Allocation Based on Status

The Make Inventory Available box on inventory status records controls whether items with a specific status should be available to be allocated to orders. By default, this box is checked when you create a new inventory status record.

Clear this box if you want on-hand inventory associated with the status to be excluded from the available count. For example, if you do not want damaged inventory to be allocated to orders, clear the Make Inventory Available box.

In addition to regular sales, purchases, returns, and transfers, inventory balances are also updated based on this setting. When items move to the Damaged status, the available inventory balance is decremented by the quantity of damaged items. Similarly, when items move from an unavailable to available status, the available inventory balance is incremented by the appropriate quantity.



Important: This setting only prevents item quantities from being allocated to orders. When you update an item to an unavailable status, you should physically prevent these items from being picked in your stock room or warehouse.

When statuses are associated with items on completed or pending transactions, you cannot edit the Make Inventory Available box on the inventory status record.

For more information on how items can be allocated to orders, see the help topic [Setting Inventory Allocation Preferences](#).



Note: The Make Inventory Available setting does not apply to items on drop shipments and special order purchases. Items with an unavailable status can be allocated to sales orders marked as drop shipments or special orders.

You can also receive unavailable items on the associated purchase order created from a drop shipment or special order sales order. For more information on drop shipments and special orders, see the help topic [Drop Shipment and Special Order Purchases](#).

Tracking Inventory Balances By Status

On certain records and searches, you can view the following item quantities shown for each status:

- **Quantity on Hand** - quantity currently stocked, including quantity committed to orders

- **Quantity Available** - quantity currently stocked, less quantity committed to orders

Inventory Balance Updates from Transactions

 **Warning:** NetSuite transactions may trigger changes in item quantities (Quantity on Order, Quantity Committed, Quantity Available and Quantity Backordered). Maximal value of quantities that can be saved is 9,999,999,999.

Assembly items have Bill of Material that defines what quantity of what components is required to produce or assemble one unit of the assembly. NetSuite supports quantity of assembly components in millions. In addition, an assembly can have multi-level Bill of Material.

For example, during save of a new Work Order transaction with following parameters, the validation of maximal quantity can prevent the transaction from saving:

- Work Order Quantity: 1,000,000 units
- Work Order Assembly: Assembly A

When you try to save the work order, the maximum allowed committed quantity for Component A2 is exceeded. Therefore, NetSuite throws an error message because of the following:

1. Order quantity is 1,000,000.
2. The logic that runs in the backend when you save a work order looks at Bill of Material of Assembly A. Because it requires 1,000 units of Assembly B1 to produce 1 unit of Assembly A, it calculates $1,000,000 \times 1,000 = 1,000,000,000$.
3. The logic then looks at Bill of Material for Assembly B1 which requires 1,000 units of Component A2. This means $1,000,000 \times 1,000 \times 1,000 = 1,000,000,000,000$ while maximum allowed quantity that can be saved, and that is 9,999,999,999.

For more information about item quantity calculations, see [Assessing Stock Levels](#).

Inventory Balance Updates from Pick, Pack, and Ship

If you use Pick, Pack, and Ship feature, note the following for lot-numbered items, serialized items, or items in bins:

- When you pick an item, the available quantity is decremented, and the on-hand quantity remains unchanged.
- When you ship the item and the item fulfillment is marked shipped, the on-hand quantity is decremented. The available quantity shown by status on records and searches is the unpicked quantity. If a lot or serial number is specified on the sales order, the available quantity is decremented prior to picking. If a lot or serial number is picked that differs from the one specified on the sales order, the available quantities are adjusted accordingly.

To track inventory balances and changes in inventory levels, see the following topics:

- [Inventory Balance Search](#)
- [Inventory Detail Search](#)
- [Inventory Status on Item Records](#)

Inventory Status on Item Records

When you enable the Inventory Status feature, the Inventory Statuses subtab appears on the Inventory Detail subtab of item records.

The Inventory Detail subtab displays different search views and results, depending on the following item record types:

Item Record Type	Search View	Search Results
Lot numbered or serialized item that uses bins	Inventory Detail On Hand	<ul style="list-style-type: none"> ■ bin number ■ serial or lot number ■ status ■ location ■ on-hand quantity ■ available quantity
Lot numbered or serialized item that does not use bins	Inventory Number/Status On Hand	<ul style="list-style-type: none"> ■ serial or lot number ■ status ■ location ■ on-hand quantity ■ available quantity
Inventory item that uses bins	Bin/Status On Hand	<ul style="list-style-type: none"> ■ bin number ■ status ■ location ■ on-hand quantity ■ available quantity

Inventory Balance Search

Run an inventory balance search to view the following information about items:

- Bin Number
- Location
- Lot or Serial Number
- Quantity On Hand
- Quantity Available
- Inventory Status

For more information on how the available and on-hand quantities are calculated, see [Tracking Inventory Balances By Status](#).

To run an inventory balance search:

1. Go to Lists > Search > Saved Searches.
2. On the Saved Searches page, click **New Saved Search**.
3. On the New Saved Search page, from the Search Type list, select **Inventory Balance**.
The Saved Inventory Balance Search page appears.
4. On the **Criteria** subtab, add filters depending on the items you want your report to include.
For an item to appear in your search results, it must match all of the defined criteria.
For more information about saved searches, see the help topic [Defining a Saved Search](#).
5. Click **Save & Run**.

Inventory Detail Search

Run an inventory detail search to view a list of inventory detail records associated with items matching your search criteria.

For more information on the inventory detail record, see [Inventory Detail Subrecord](#).

To run an inventory detail search:

1. Go to Lists > Search > Saved Searches > New.
2. In the New Saved Search page, click **Inventory Detail**.
3. Set one or more of the available fields, depending on the items you want your report to include.
For an item to appear in your search results, it must match all of the defined criteria.
For information about saved searches, see the help topic [Defining a Saved Search](#).
4. Click **Submit**.

Search Results

Column	Value
Number	Lot or serial number.
Bin Number	Bin associated with the item.
Status	Inventory status associated with the item.
Item Count	The quantity by which the associated transaction impacted your inventory. Displayed as a positive or negative value, depending on whether the associated transaction added to or deducted from your inventory. Negative values appear within parentheses.
Quantity	The quantity by which the associated transaction impacted your inventory. Displayed as absolute values, regardless of the positive or negative impact to your inventory.

Transferring Inventory

When tracking inventory using the Multi-Location Inventory feature, you can record any move of inventory between locations. Choose from the three ways described below to record your inventory transfers.

Basic Inventory Transfers

One Step Item Transfer

An inventory transfer decreases items in the source location and increases them in the receiving location, all in one step. Use the Transfer Inventory form to post information regarding changes in inventory levels for each item in each location.

For details about inventory transfers, read [Basic Inventory Transfers](#).

Transfer Orders

Multiple Step Item Transfer

Use transfer orders to schedule and track the individual steps of your inventory transfer process. Transfer orders are different than basic inventory transfers because you can track each stage of the transfer process and manage items that are moved from one location to another over a period of time.

A transfer order is entered to schedule the movement of items and can go through an approval process. Approved transfers are then fulfilled out of the source location and you know when the items are in transit. Finally, the destination location receives the items and the items are counted in that location's inventory.

For details on transfer orders, read [Inventory Transfer Orders](#).

Intercompany Transfer Orders

Transfer Between Companies

In a NetSuite OneWorld account, use an intercompany transfer order to move inventory between subsidiary locations within your company.

For details on intercompany transfer orders, read [Intercompany Inventory Transfers - Non-Arm's Length](#).

Basic Inventory Transfers

An inventory transfer decreases items in the source location and increases them in the receiving location, all in one step. Use the Transfer Inventory form to post information regarding changes in inventory levels for each item in each location.

 **Warning:** You should not delete or change inventory transactions dated prior to an inventory distribution, as this can cause difficulties maintaining accurate inventory data.

To enter a basic inventory transfer:

1. Go to Transactions > Inventory > Transfer Inventory.
2. Complete the steps as described in the sections below.
3. Click **Save**.
4. When you click Save, your inventory is updated for each location.

You can view transfers you create by going to Transactions > Inventory > Transfer Inventory > List.

Primary Information

1. The current date autofills the date field. Select or enter a different date if needed.
2. Select or enter a posting period for this transaction.
3. In the **Ref. No.** field, enter a reference number for this transaction. If you have set up auto-numbering, the current number shows in this field.
4. In the **Memo** field, enter information to identify this transaction in a list of other transactions. For example, when you use the Search Transactions feature, you can search for specific words and phrases in the **Memo** field.
5. In the **From Location** field, select the location you want to take the item out of. The inventory at this location is reduced.
6. In the **To Location** field, select the location where you want to send the item.

The inventory at this location is increased.

Classifications

1. Select a **Department** or **Class** if you track them.
2. When a document type has the Allow Override option enabled, users can unintentionally introduce duplicated document numbers and numbering gaps into your account.

To prevent duplicated document type numbers and numbering gaps, you can customize transaction type records to display the **Generate TranID on Save** box. When this box is checked, the document number is recorded when the user saves the transaction record rather than when the user opens the transaction record. This ensures that the document number is unique for the document type, as if the Allow Override option was not enabled.

Items subtab

1. In the **Item** field, select the item you want to transfer.
The description of this item appears in the **Description** field.
The quantity on hand in the location you are pulling items from appears in the **Qty On Hand** field.
2. In the **Qty to Transfer** field, enter the quantity of items you want to transfer to another location.



Note: You should not enter an item quantity that exceeds the item's quantity on hand at the location from which you are moving the items. Review the quantity on hand at that location before entering a value in this field.

3. If the item you are transferring is a serial or lot numbered item, you can enter the serial or lot numbers.
 - Separate each serial number with a space, comma or by pressing Enter after each one.
You must enter a serial number for each serialized item. For example, if you enter a quantity of 2, then you must enter two serial numbers.
 - Lot numbers must be entered in this format: **LOT#(Quantity)**
For example, to enter a quantity of 100 items as Lot number ABC1234, enter **ABC1234(100)**.
4. In the **From Bins** field, the preferred bin for the From location is selected.
To enter quantities to transfer from other bins, click the bin number, and click the **Bins** icon. You can enter quantities that combine to equal the total quantity to transfer for each bin associated with item, and click **Done**.
You can also enter bin numbers separated by commas with on-hand quantities in parentheses. For example, you can enter **A101(50), A102(43)**.
5. In the **To Bins** field, the preferred bin for the **To** location is selected.
6. Click **Add**.
The bottom of the Inventory Transfer page shows a list of items you intend to transfer.
This list displays the item and the data you entered about the transfer transaction.
7. Repeat the steps above for any other inventory items you want to transfer.

Inventory Transfer Orders

When you need to transfer inventory from one location to another, you can enter inventory transfer orders to schedule and track the movement of items.

Transfer orders are different than basic inventory transfers because you can track each stage of the transfer process and know when items are in transit. A basic inventory transfer changes the item count in both locations in one step. For details about a basic transfer, read [Transferring Inventory](#).

Transfer orders help you manage items that are moved from one location to another over a period of time.

The transfer order workflow is as follows:

1. A transfer order is entered to schedule the movement of items and can go through an approval process.
2. When a transfer order is approved, the following occurs:
 - Items are committed out of the source location's inventory
 - The On Order quantity of the items at the destination location increases.
3. Transfers are then fulfilled out of the source location and you know when the items are in transit.
 - Fulfilled items are removed from the On Hand count at the source location.
 - The value of items in transit are removed from the Inventory Asset account and added to the Inventory in Transit account for the source location.
4. Finally, the destination location enters a receipt for the items.
 - The items are added to the destination location's inventory and increase the On Hand count.
 - The items' value is added to the Inventory Asset account for the destination location.
 - The On Order quantity of the item in the destination location decreases.

For example, your Location A sells an order for 100 widgets, but only has 20 in stock. It normally takes two weeks to receive an order from your regular widget vendor, but your customer cannot wait that long. After checking stock at all locations, you see that your Location B has 200 widgets in stock. You enter an inventory transfer order to move 80 widgets from Location B to Location A so you can fill the customer's order quickly.

The shipping manager at Location B sees that a new inventory transfer order has been entered for her location. Turnover of widgets is low at her location recently and she approves the transfer order. After it is approved, the items are committed to the transfer and cannot be sold while in transit.

The warehouse manager at Location A sees that the transfer order was approved and knows the widgets are in transit. He can estimate when the widgets will arrive and when he can fulfill the customer's order.

The approved inventory transfer order now shows in the queue at Location B to be fulfilled and shipped to Location A. The warehouse at Location B prints a picking ticket and then picks, packs and ships the items out using their preferred shipping company.

When the shipment of widgets arrives at Location A, the manager marks the transfer order as received and the items are added to inventory. The items can then be used to fulfill the order and prepared to ship out to the customer.

Inventory transfer orders can detail the following:

- Items and quantities intended to be transferred
- When items are fulfilled, picked, packed, or shipped out of the source location
- The status of transfers and when items remain in transit
- When items are received in the receiving location
- Outstanding items yet to be transferred
- Transfer price of items

Lines on transfer orders cannot be partially fulfilled or partially received, the entire line must be processed at one time. Only available stock can be committed to transfer orders.

After a transfer order line has been fulfilled, the Quantity, Units, and Serial/Lot Numbers fields are disabled and changes cannot be entered.

Transfer orders you create and process are linked to any related item fulfillments and to item receipts.

Shipping costs can be calculated on the Shipping subtab of a transfer order by selecting a shipping method in the Ship Via field and clicking Calculate in the form header.

Using transfer orders requires that you have enabled the Multi-Location Inventory feature. For details about enabling features, read the help topic [Items and Inventory Features](#).

View Transfer Data on Item Records

You can view transfer information on item records:

- On the Inventory subtab, the Quantity on Order for an item includes the quantities on approved transfer orders.
- On the Inventory subtab, the Transfer Price field allows entry of a transfer price for declared values when shipping.
 - The transfer price is *not* a charge for the destination location.
 - The transfer price is a shipping amount for reference only, such as for insurance or international shipping and does not affect inventory costing.
 - The transfer price defaults to show a value of zero.
- On the Locations subtab, the Qty in Transit column displays the amount transferred out of a location.
- On the Lot Numbers subtab, the Qty in Transit column displays the amount transferred out of a location.

Item Costing and General Ledger

Transfer orders do not post to a Cost of Goods Sold (COGS) account. They post to remove the item value from the source location's asset account and add the value to the Inventory in Transit account. Individual transfer orders include a setting to Use Item Cost as Transfer Cost. When a new transfer order is created, this setting defaults to the accounting preference setting. By putting this setting on the transfer order, users have more flexibility on managing the inventory GL.



Note: You can change this setting if the transfer order is not approved. After the transfer order is approved, this setting cannot be changed.

Preferences

You can set preferences that determine handling for transfer orders that you enter. Preferences are available for the default order status and handling fulfillments based on commitments.

When you require approval for processing transfer orders, after a transfer order is entered, the order must be approved by someone with permission before it can be fulfilled.

For details on these preferences, read [Transfer Order Preferences](#).

Serialized and Lot Inventory

When you enter a transfer order, you may enter the serial numbers for items you are transferring, but you must enter a serial number for each item on the order. You cannot enter serial numbers for only

some of the items. After you have entered serial numbers on a transfer order, the Serial/Lot Numbers field is disabled on the fulfillment form.

If you do not enter serial numbers for serialized items when you enter the transfer order, then the Serial/Lot Numbers field is enabled on the fulfillment form and you must enter serial numbers there.

The Serial/Lot Numbers field is always disabled when you receive a transfer order.

Location Restrictions

Users who have access that is restricted by location have the following limitations when working with transfer orders.

- **Create/Edit/Copy** : If you are restricted to access only one location, you can create a transfer order, but it will require approval because the source location list shows only one location. The source location will need to be entered to approve the order.
You can only edit or make a copy of a transfer order if you have access to both the source and destination locations.
- **Fulfill** : The Fulfill Orders page and Print Picking Ticket page show only transfer orders for which you have access to the source location.
- **Receive** : The Receive Order page shows only transfer orders for which you have access to the destination location.
- **Reminders** : The Orders to Fulfill reminder shows only transfer orders for which you have access to the source location. The Orders to Receive reminder shows only transfer orders for which you have access to the destination location.
- **Reports** : The Transfer Order Register report displays only orders for which you have access to either the source or destination location on the order.

Searches, Reports, and Reminders

You can use searches, reports, and reminders to find information about inventory you are transferring. For details, read [Searches, Reports, and Reminders for Transfer Orders](#).

Customization

You can specify linked forms to be used when processing transfer orders, or add custom fields to transfer order forms. For details, read [Customizing Transfer Orders](#).

NetSuite OneWorld Accounts

In NetSuite OneWorld accounts, you can enter an Intercompany Transfer Order to move inventory between locations in two different subsidiaries within your company.

Enter an Intercompany Transfer Order to schedule items to be shipped out of one subsidiary location and received into the inventory at another subsidiary location. Intercompany transfer orders enable you to track items in transit between the two subsidiary locations.

To use intercompany transfer orders, go to Transactions > Inventory > Enter Intercompany Transfer Orders..

This form is available only in NetSuite OneWorld accounts.

Read the [Intercompany Inventory Transfers - Non-Arm's Length](#) topic.

Multi-Book and Transfer Orders

If you use the Multi-Book Accounting feature in a NetSuite OneWorld account, the following applies for transfer orders:

- If a secondary book exists in the source subsidiary but does not exist in the destination subsidiary, then the destination subsidiary does not post a cost at the time of the transfer.
- If a secondary book exists in the destination subsidiary but does not exist in source subsidiary, then the transfer cost in the primary book is used as the transfer cost when posting in the secondary book.

In-Transit Ownership

You can choose when the transfer of ownership occurs for items being transferred between locations. Ownership can transfer either at the time of shipping or the time of receipt.

For example, Location A is transferring 10 widgets to Location B. In some cases, you may want Location B to take ownership when the item is received. In other cases, you may want Location B to take ownership as soon as the item is shipped.

Transfer orders use international commercial terms (incoterms) to define transfer of ownership. Incoterms are a standardized three-letter trade term used on transactions related to international commercial procurement practices that communicate the tasks, costs, and risks associated with the transportation and delivery of goods. Incoterms define where the customer takes ownership of the product.

The following are default incoterms:

- **Ex Work (EXW)** – Inventory ownership is transferred at the shipping point
- **Delivered at Place (DAP)** – Inventory ownership is transferred at the destination point

On a transfer order form under Classifications, choose the appropriate incoterm in the Incoterm field. Be aware that the incoterm you select impacts accounting and inventory information.



Note: When creating a transfer order, you can only select EXW or DAP. After the order status is pending approval or pending fulfillment, you can choose another incoterm.

Select your default setting at Setup > Accounting > Accounting Preferences. On the Order Management subtab in the Default Transfer Order Incoterms field, choose your default setting from the following:

- Shipping Point (Ex Works)
- Destination Point (DAP)

The incoterm you choose will populate the incoterm field on transfer orders.

You can create additional incoterms as necessary at Setup > Accounting > Accounting Lists.

Ex Work (EXW) and Closed Periods

When you have enabled the preference to Create and Edit Inventory Transactions Dated in Closed Periods, you cannot select the Ex Work (EXW) incoterm. For details about setting this preference, read the help topic [General Accounting Preferences](#).

Additionally, if any transfer order has been entered using the Ex Work (EXW) incoterm then the Create and Edit Inventory Transactions Dated in Closed Periods preference will no longer be available.

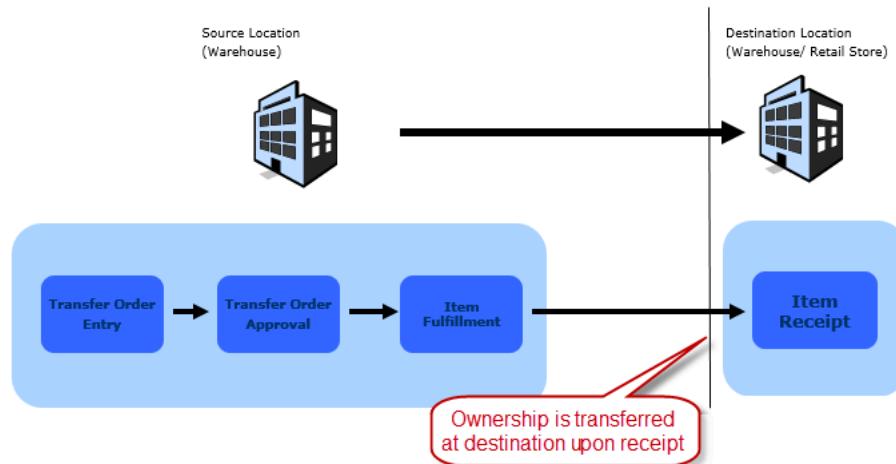
Inventory and Accounting Impact of Incoterms

The incoterm you select on a transfer order impacts accounting and inventory information. The sections below elaborate the impacts depending on the incoterm you choose for transfer orders and intercompany transfer orders.

- Destination Point (DAP) for Transfer Orders
- Destination Point (DAP) for Intercompany Transfer Orders
- Shipping Point (EXW) for Transfer Orders
- Shipping Point (EXW) for Intercompany Transfer Orders

Destination Point (DAP) for Transfer Orders

When Destination Point (DAP) is selected as the transfer order incoterm, the destination location assumes ownership of the goods upon receipt of the item.



In the following example, the unit cost at the source for 7 shipped units is 5 dollars each.

Fulfillment	
CR Asset (Source Location)	\$35
DR Intransit (Source Location)	\$35

Receipt	
DR Asset (Destination)	\$35
CR Intransit (Source Location)	\$35

GL Impact		Return to Item Fulfillment #40						
		TOTAL: 2						
ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	DEPARTMENT	CLASS	LOCATION
Inventory In Transit	\$35.00		Yes	Cost of Sales				Warehouse - East Coast
Inventory Asset		\$35.00	Yes	Cost of Sales				Warehouse - East Coast

At the time of item fulfillment, the inventory is still owned by the source location, but it is out of the warehouse.

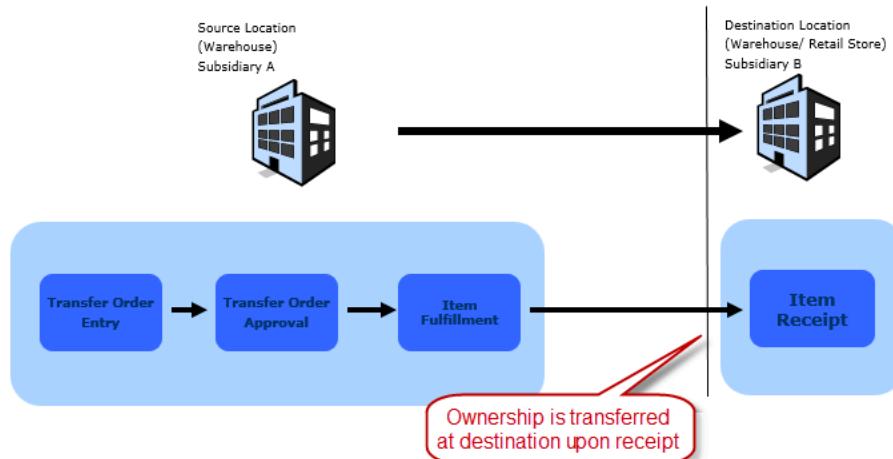
- Source Location: On-hand quantity is decreased.
- Source Location: In-transit quantity is increased. (Inventory is owned by source location.)
- Destination Location: On-order quantity is increased.

At the time of item receipt, ownership is transferred to the destination location.

- Destination Location: On-hand quantity is increased.
- Source Location: In-transit quantity is decreased.
- Destination Location: On-order quantity is decreased.

Destination Point (DAP) for Intercompany Transfer Orders

When Destination Point (DAP) is selected as the intercompany transfer order incoterm, the destination location assumes ownership of the goods upon receipt of items.



In the following example, items are transferred from the US (\$USD) to Canada (\$CAD) and the incoterm is set to Destination Point (DAP).

Intercompany Transfer Order	
2 RECEIVED	
Edit	Back
Close Order	
Actions ▾	
Primary Information	
ORDER # 2	EMPLOYEE
DATE 11/1/2016	TO LOCATION CAN ONLY LOCATION
SUBSIDIARY Parent Company	<input checked="" type="checkbox"/> FIRMED
TO SUBSIDIARY CAN Subsid	MEMO
FROM LOCATION US ONLY LOCATION	<input checked="" type="checkbox"/> USE ITEM COST AS TRANSFER COST
Classification	
DEPARTMENT	CLASS
INCOTERM Destination Point (DAP)	

The unit cost at the source is \$35 USD.

Fulfillment (Source Subsidiary)	Amount
CR Asset	\$35 USD
DR Intransit	\$35 USD

GL Impact									Return to Item Fulfillment #2	TOTAL: 2
ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	SUBSIDIARY	DEPARTMENT	CLASS	LOCATION	
Inventory In Transit	\$35.00		Yes	Cost of Sales	Parent Company				US ONLY LOCATION	
1200 Inventory		\$35.00	Yes	Cost of Sales	Parent Company				US ONLY LOCATION	

Receipt (Source Subsidiary)	Amount
DR Intercompany AP	\$35 USD
CR Intransit	\$35 USD

Receipt (Destination Subsidiary)	Amount
CR Intercompany AR	\$35 USD (\$40.45 CAD)
DR Asset	\$35 USD (\$40.45 CAD)

ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	SUBSIDIARY	DEPARTMENT	CLASS	LOCATION	TOTAL: 4
1200 Inventory	\$40.45		Yes		Parent Company : CAN Subsid				CAN ONLY LOCATION	
Inventory In Transit		\$35.00	Yes		Parent Company				US ONLY LOCATION	
Intercompany Clearing Account		\$40.45	Yes		Parent Company : CAN Subsid				CAN ONLY LOCATION	
Intercompany Clearing Account		\$35.00	Yes		Parent Company				US ONLY LOCATION	

At the time of item fulfillment, the inventory is still owned by the source location, but it is out of the warehouse.

- Source Location: On-hand quantity is decreased.
- Source Location: In-transit quantity is increased. (Inventory is owned by source location.)
- Destination Location: On-order quantity is increased.

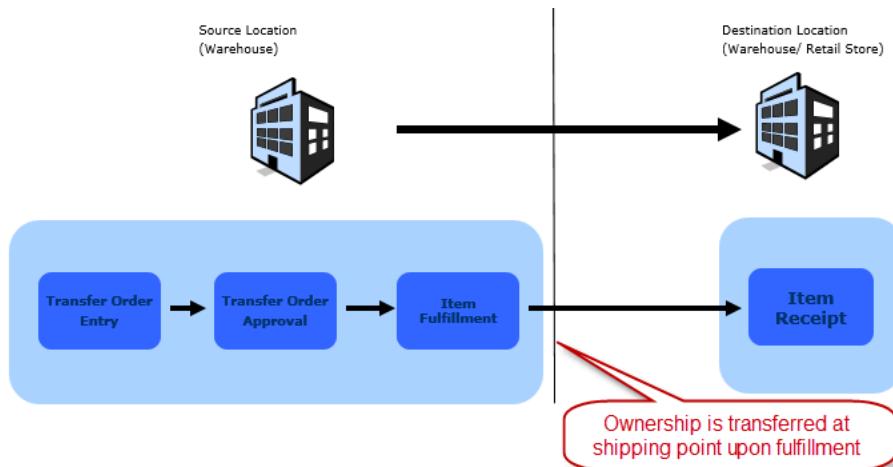
At the time of item receipt, ownership is transferred ownership is transferred to the destination location.

- Destination Location: On-hand quantity is increased.
- Source Location: In-transit quantity is decreased.

- Destination Location: On-order quantity is decreased.

Shipping Point (EXW) for Transfer Orders

When Shipping Point (EXW) is selected as the transfer order incoterm, the destination location assumes ownership of goods upon item fulfillment.



Fulfillment	Amount
CR Asset (Source Location)	\$35
DR Intransit (Destination Location)	\$35

Receipt	Amount
DR Asset (Destination Location)	\$35
CR Intransit (Destination Location)	\$35

As in the example below, you may ship items from your East Coast location to your West Coast location.

GL Impact								Return to Item Fulfillment #39
								TOTAL: 2
ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	DEPARTMENT	CLASS	LOCATION
Inventory In Transit	\$35.00		Yes	Cost of Sales				Warehouse - West Coast
Inventory Asset		\$35.00	Yes	Cost of Sales				Warehouse - East Coast

GL Impact								Return to Item Receipt #4
								TOTAL: 2
ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	DEPARTMENT	CLASS	LOCATION
Inventory Asset	\$35.00		Yes					Warehouse - West Coast
Inventory In Transit		\$35.00	Yes					Warehouse - West Coast

At the time of item fulfillment, the inventory is still owned by the source location, but it is out of the warehouse. Ownership is transferred at the shipping point.

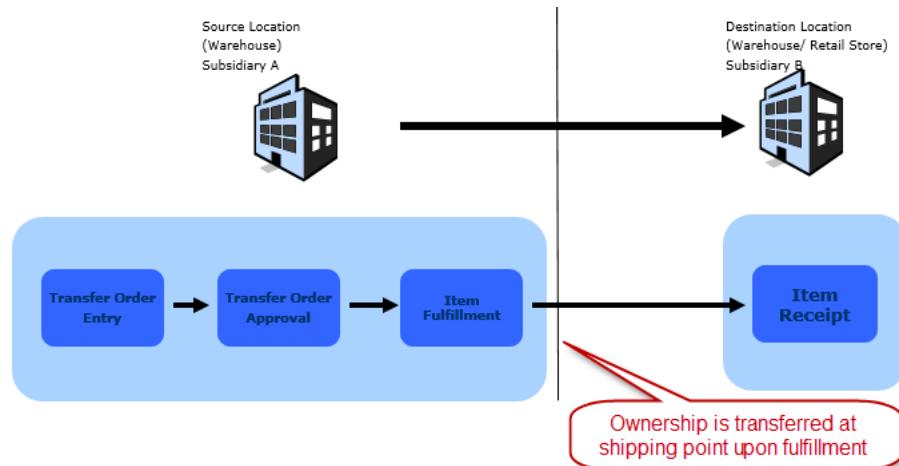
- Source Location: On-hand quantity is decreased.
- Destination Location: In-transit quantity is increased. (Inventory is owned by the destination location)
- Destination Location: On-order quantity is increased.

At the time of item receipt, the in-transit quantity is reduced and on-hand quantity is increased.

- Destination Location: On-hand quantity is increased.
- Destination Location : In-transit quantity is decreased.
- Destination Location: On-order quantity is decreased.

Shipping Point (EXW) for Intercompany Transfer Orders

When Shipping Point (EXW) is selected as the transfer order incoterm, the destination location assumes ownership of goods upon item fulfillment.



In the following example, items are transferred from the US (\$USD) to Canada (\$CAD) and the incoterm is set to Shipping Point (EXW)

Intercompany Transfer Order	
3 PENDING FULFILLMENT	
Edit	Back
Fulfill	Close Order
Actions ▾	
Primary Information	
ORDER # 3	EMPLOYEE
DATE 11/1/2016	TO LOCATION CAN ONLY LOCATION
SUBSIDIARY Parent Company	<input checked="" type="checkbox"/> FIRMED
TO SUBSIDIARY CAN Subsid	MEMO
FROM LOCATION US ONLY LOCATION	<input checked="" type="checkbox"/> USE ITEM COST AS TRANSFER COST
Classification	
DEPARTMENT	CLASS
INCOTERM Shipping Point (EXW)	

Fulfillment (Source Subsidiary)	Amount
Note: The exchange rate is based on the spot rate	
CR Asset	\$35 USD
DR Intercompany AP	\$35 USD

Fulfillment (Destination Subsidiary)	Amount
CR Intercompany AR	\$40.45 CAD (\$35 USD)
DR Intransit	\$40.45 CAD (\$35 USD)

The unit cost at the source location is \$35 USD.

ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	SUBSIDIARY	DEPARTMENT	CLASS	LOCATION
Inventory In Transit	\$40.45		Yes	Cost of Sales	Parent Company : CAN Subsid				CAN ONLY LOCATION
1200 Inventory		\$35.00	Yes	Cost of Sales	Parent Company				US ONLY LOCATION
Intercompany Clearing Account		\$40.45	Yes		Parent Company : CAN Subsid				CAN ONLY LOCATION
Intercompany Clearing Account	\$35.00		Yes		Parent Company				US ONLY LOCATION

Item Receipt (Destination Subsidiary)	Amount
DR Asset	\$40.45 CAD(\$35 USD)
CR Intransit	\$40.45 CAD(\$35 USD)

ACCOUNT	AMOUNT (DEBIT)	AMOUNT (CREDIT)	POSTING	MEMO	NAME	SUBSIDIARY	DEPARTMENT	CLASS	LOCATION
1200 Inventory	\$40.45		Yes		Parent Company : CAN Subsid				CAN ONLY LOCATION
Inventory In Transit		\$40.45	Yes		Parent Company : CAN Subsid				CAN ONLY LOCATION

Searches, Reports, and Reminders for Transfer Orders

You can use searches, reports, and reminders to find information about inventory you are transferring.

Reminders

The Transfer Orders to Approve reminder shows you transfer orders due to be processed. All transfer orders that are pending approval or pending fulfillment show in the reminder.

To set up the reminder, click the Home tab and in the Settings section, click Customize this Page. In the Reminders section, click Set Up. Check the Transfer Orders to Approve box and click Save.

Search

Transaction searches show the status, source and destination locations, quantities in-transit, quantities shipped, and quantities received for a transfer order.

If you customize an item search to show the Location in Transit column in results, the list shows the in-transit quantity for each location. For any quantity of items that is in transit, that quantity is reduced from the On Hand count for the item at the source location. The quantity is not added to the receiving location until the transfer order is marked received.

To customize a search:

1. Go to Reports > New Search.
2. Click **Item**.
3. On the **Item Search** form, click **Personalize Search**.

When you run a transaction search, you can set the following criteria to search for transfer orders:

- Transfer Location (To Location)
- Location (where the transaction is processed)
- Order Status
- Order Number

Saved Searches

You can create a Saved Transaction Search to find detailed information about transfer orders.

To create a saved search:

1. Go to Reports > Saved Searches > All Saved Searches..
2. Click **New**.
3. Click **Transaction**.
4. On the **Saved Transaction Search** page, **Criteria** subtab Sin the **Filter** field, you can choose to add the following:
 - Transfer Order Line Type
 - Transfer Order Quantity Committed
 - Transfer Order Quantity Fulfilled
 - Transfer Order Quantity Packed
 - Transfer Order Quantity Picked
 - Transfer Order Quantity Received
5. On the **Results** subtab on the **Columns** subtab, you can choose to add the following:
 - Transfer Location
 - Transfer Order Item Line ID

- Transfer Order Line Type
- Transfer Order Quantity Committed
- Transfer Order Quantity Packed
- Transfer Order Quantity Picked
- Transfer Order Quantity Received
- Transfer Order Quantity Shipped

For example, you can select as a search criterion a Transfer Order Line Type that is Any Of Item, Shipping and Receiving. Select in Results to show the Transfer Order Item Line ID and Transfer Order Line Type. Then, when you run the search, for each transfer order line, Item Shipping and Receiving data is displayed for each line on each order.

Reporting

The Transfer Order Register shows all transfer orders with their number, status, and amount.

To view the Transfer Order Register, go to Reports > Inventory/Items > Transfer Order Register..

The following reports also include transfer order data:

- Inventory Backorder Report
- Inventory Pending Fulfillment Report
- Shipping Report

Also, when viewing the Current Inventory Snapshot Report, the In Transit column displays quantities in transit.

Transfer Order Preferences

You can set preferences that determine handling for transfer orders that you enter, including the default order status and approval requirements.

To set transfer order preferences:

1. Go to Setup > Accounting > Accounting Preferences.
2. Click the **Order Management** subtab.
3. To set a default on manual orders, in the Transfer Orders section, select a **Default Transfer Order Status**:
 - **Pending Approval Firm** – Requires someone with sufficient permission to approve the order before it is processed. Firmed transfer orders are not available to be rescheduled or cancelled.
 - **Pending Approval Open** – Requires someone with sufficient permission to approve the order before it is processed. Transfer orders that are Open, not Firmed, are available to be rescheduled or cancelled. Recommendations for Open transfer orders are removed for each demand planning run.
 - **Pending Fulfillment** – To send transfer orders directly to the fulfillment queue without requiring further approval.
4. To set a default on auto-generated transfer orders, in the **Generate Transfer Orders in Supply Planning** field, select one of the following:

- **Generate in Pending Approval Firm Status** – Requires someone with sufficient permission to approve the order before it is processed. Firmed transfer orders are not available to be rescheduled or cancelled.
- **Generate in Pending Approval Open Status** – Requires someone with sufficient permission to approve the order before it is processed. Transfer orders that are Open, not Firmed, are available to be rescheduled or cancelled. Recommendations for Open transfer orders are removed for each demand planning run.
- **Generate in Pending Fulfillment Status** – To send transfer orders directly to the fulfillment queue without requiring further approval.



Note: The **Generate Transfer Orders in Supply Planning** field is only available in accounts that have Supply Planning features enabled. For more information, see [Enabling Supply Planning Features](#).

5. To use the transfer price as a declared shipping value for reference only, check the **Use Item Cost as Transfer Cost** box.

For example, for insurance or international shipping.



Note: If you enable this preference, items that use Standard costing are not available to be transferred.

- The transfer price is not a charge for the destination location.
- The transfer price does not affect inventory costing on transactions.
- The transfer price defaults to show the value in the **Transfer Price** field of item records. This value can be changed on individual transfer orders.
- Partial fulfillment and receipt of transfer orders is allowed, but you cannot receive more than you have fulfilled as of any date. For example, if you have fulfilled 10 widgets out of 20 on a transfer order, you cannot receive 12 widgets on that order.

To use the transfer price shown on the transfer order as the item cost on the item receipt, clear the **Use Item Cost as Transfer Cost** box.



Important: If no transfer price is entered on the transfer order, no cost is recorded on the item receipt.

- Any difference between the actual cost and the transfer price posts to a Gain/Loss account when the item is shipped.
- The transfer price and the Gain/Loss account are defined on each item record.
- The transfer price defaults to show the value in the Transfer Price field of item records. This value can be changed on individual transfer orders.

For example, for an order you are transferring, the transfer price and actual cost are as follows:

Transfer Price \$120

Item Cost \$100

This table shows the posting amounts at the time of shipment:

	DR	CR
In-Transit	\$120 (transfer price)	
Inventory Asset		\$100 (item cost)
Gain/Loss		\$20 transfer price - item cost)

This table shows the posting amounts at the time of receipt:

	DR	CR
Inventory Asset	\$120 (transfer price)	
In-Transit		\$120 (item cost)

Note: This preference can also be set on individual transfer orders when they are created. Individual orders default to show the setting chosen in this field. The setting cannot be changed and is permanent after the order is saved (or after approval if you use approval routing.)

6. To set a default incoterm on transfer orders, select one of the following **Default Transfer Order Incoterms**:
 - **Delivered at Place (DAP)** - Inventory ownership is transferred at the destination point.
 - **Ex Work (EXW)** - Inventory ownership is transferred at the shipping point.
7. To set a default time between the moment an order is shipped from one location and the moment it is received at a second location, enter a **Default Lead Time Between Locations**.
For example, enter 31 to set a default lead time of 31 days.
8. Click **Save**.

Entering a Transfer Order

Enter a transfer order to schedule items to be shipped out of one location and received into another location's inventory. Transfer orders enable you to track items in transit between two locations.

Note: If you are restricted to access only one location, you can create a transfer order, but it will require approval because the source location list shows only one location. The source location will need to be entered to approve the order.

To enter a transfer order:

1. Go to Transactions > Inventory > Enter Transfer Orders.
2. Complete the fields in each section as indicated below.
3. Click **Save**.

Primary Information

1. The **Order #** field shows the correct number if autonumbering is activated. Otherwise, enter the order number in this field.
2. On the Transfer Order form, the **Date** defaults to the current date. You can select or enter another date if necessary.
3. For NetSuite OneWorld accounts, select a **Subsidiary**.

Note: After selecting a subsidiary on a transfer order, the order must use the base currency designated for that subsidiary.

4. In the **From Location** field, select the originating location for the transfer. Items are taken out of this location and the inventory count for the item is decreased at the location when the order is fulfilled.

You are not required to enter a source location to enter a transfer order, but you must choose a source location to approve and fulfill the transfer order.

5. Optionally choose an **Employee** to associate with this transfer order.
 6. In the **To Location** field, select the receiving location for the transfer. The inventory count and asset value for the item is increased at this location when the items are received.
- You are required to enter a destination location to enter or approve a transfer order.
- The **Ship To Address** of the transfer order defaults to the address of the destination location.
7. The **Status** field shows the current status of the transfer. The default status shown may be Pending Approval or Pending Fulfillment, depending on the preference setting. For details on setting this default, read [Transfer Order Preferences](#).
 8. When the **Firmed** box is checked, the line items are no longer eligible for reallocation to another order. The items must remain committed to the firmed order. Firmed transfer orders are not available to be rescheduled or cancelled.
 9. In the **Memo** field, optionally enter information to identify this transaction in a list of other transactions. When you use the Search Transactions feature, you can search for specific words and phrases in the Memo field.
 10. Choose a setting for the **Use Item Cost as Transfer Cost** preference to apply to this transaction. This field defaults to use the setting chosen under Accounting Preferences.

If you use approval routing, this setting can be changed on a transfer order as long as the transfer order is not yet approved. Once the transfer order is approved, this setting cannot be changed.



Note: If you enable this preference, items that use Standard costing are not available to be transferred.

For details about this preference, read [Transfer Order Preferences](#).

11. Use **Incoterms** to define when the transfer of ownership occurs for items being transferred between locations:
 - Ex Work (EXW) – inventory ownership is transferred at the shipping point
 - Delivered at Place (DAP) – inventory ownership is transferred at the destination point

Be aware that the incoterm you select impacts accounting and inventory information.

Classification

1. If you track **Departments** or **Classes**, select them.

Items

1. In the **Item** field, select the item you want to transfer. Only inventory and assembly items can be added to a transfer order. You can also click the **Add Multiple** button to enter more than one item at a time

The description of this item shows in the **Description** field.

Only available stock can be committed to transfer orders.

2. In the **Quantity** field, enter the quantity of items you want to transfer to another location.



Note: You should not enter an item quantity that exceeds the item's quantity on hand at the location you are pulling items from inventory. Please review the quantity on hand at that location before entering a value in this field.

3. The **Transfer Price** field defaults to show the value in the Transfer Price field on the item record. You can accept the default value or enter a new one for this order.

The use of the value entered in the **Transfer Price** field depends on your setting for the **Use Item Cost as Transfer Cost** preference. This field defaults to show a value of zero if the field is blank or shows zero on the item record.

- When the Use Item Cost as Transfer Cost preference is enabled, the transfer price is not considered for posting cost accounting of line items. In the Transfer Price field, enter a declared value for the item to be used for shipping purposes only.
 - When the Use Item Cost as Transfer Cost preference is disabled, the transfer price is considered during the posting of cost accounting lines. Items that do not have a transfer price set on the transfer order use a zero value for cost accounting calculations when the item is received.
4. The unit of measure for the item is displayed in the **Units** field. You can select another unit of necessary.
 5. If the item you are transferring is a serial or lot numbered item, enter the serial or lot numbers.



Note: By entering a specific serial or lot number, you are designating a specific item and NetSuite attempts to allocate the specific item for this order. If you do not enter a specific serial or lot number, NetSuite allocates only the specified quantity of this item to the order. Then, you can designate the specific serial or lot number for the item at a later time.

- Separate each serial number with a space, comma or by pressing Enter after each one. You must enter a serial number for each serialized item. For example, if you enter a quantity of 2, then you must enter two serial numbers.
 - Lot numbers must be entered in this format: **LOT#(Quantity)** For example, to enter a quantity of 100 items as Lot number ABC1234, enter **ABC1234(100)**.
- When you enter a transfer order, you can enter the serial numbers for items you are transferring, but you must enter a serial number for each item on the order. You cannot enter serial numbers for only some of the items. After you have entered serial numbers on a transfer order, the **Serial/Lot Numbers** field is disabled on the fulfillment form.
- If you do not enter serial numbers for serialized items when you enter the transfer order, then the **Serial/Lot Numbers** field is enabled on the fulfillment form and you must enter serial numbers there.
6. In the **Expected Ship Date** field, enter the date you expect this item to be shipped from the vendor. This defaults to show the transaction date.
 7. In the **Expected Receipt Date** field, enter the date you expect this item to arrive in your warehouse. This defaults to show the transaction date.
 8. In the **Commit** column select one of the following:
 - **Available Qty** - Items for this line item are committed as available. Available items are shipped, and items that are not available are placed on backorder.
 - **Complete Qty** - This line item only ships when all items are committed.
 - **Do Not Commit** - Items are not committed to this line item until this setting is changed.
 9. Set any options that apply to this item.
 10. Click **Add**.
 11. Repeat the steps above for each item you want to transfer between these locations.

Shipping

1. The **Ship Date** field defaults to show the current date. You can type or pick another shipping date for this order.

2. The **Shipping Carrier** field displays the carrier associated with the customer, if available, or your default shipping carrier. You can select a different carrier.
3. In the **Shipping Method** field, select a shipping method for this order.
Select a shipping method for this order.
If you automatically charge for shipping, the shipping amount is entered in the shipping costs field. To automatically charge for shipping, go to Setup > Accounting > Shipping and check the **Charge for Shipping** box, then click Submit. You must also set up the charge details of your shipping items.
To add or edit shipping items, go to Lists > Accounting > Shipping Items.
4. The **Shipping Cost** calculates automatically depending on the shipping method you select above. To change the cost of a shipping method, go to Lists > Accounting > Shipping Items and select the shipping method you want to change. If you use UPS Real-Time rates and a package is over 150 lbs, the package is charged as multiple packages equal to or less than 150lbs.
To calculate shipping for the transfer items, click the **Calculate** button.
5. In the **Handling Cost** field, enter the price you want to charge for this item's handling.
6. The **Ship To Address** of the transfer order defaults to the address of the destination location.
To enter an address manually, select **Custom** in the **Ship To Select** field and enter the address.

Communication

1. Click the **Communication** subtab to associate activities, notes or files with this transaction.
 - Use the **Events, Tasks**, and **Phone Calls** subtabs to attach activities to this transaction. For more information, see the help topic [Attaching Events, Tasks, and Calls to Records and Transactions](#).
 - On the **Files** subtab, you can select and attach files from the File Cabinet related to this transaction. Select **New** to upload a new file to File Cabinet.
 - On the **User Notes** subtab, you can enter a title and note for any comments you want to add to this transaction. Click **Add** after each note.

Now, this transfer order can be processed.

- If you require approval for transfer orders, approve the appropriate transfers at Transactions > Inventory > Approve Transfer Orders..
- If you do not require approval for transfer orders, go to Transactions > Sales > Fulfill Orders..

Approving Transfer Orders

After you enter transfer orders, if an order has a status of Pending Approval, the order must be approved by someone with authorization before it can be processed.

You can choose to require approval by default. For details about approval preferences, read [Transfer Order Preferences](#).

To approve transfer orders:

1. Go to Transactions > Inventory > Approve Transfer Orders.
2. In the **Supervisor** field, select a name to filter the sales order list by supervisor.
Clear this field to show all transfer orders pending approval.

3. To approve a specific order, enter an order number in the **Select Order** number field, either manually or by scanning a bar code.
4. In the **Date** field, select the date range for the transactions you want to show in the list. The date range you select is reflected in the **From** and **To** fields. If you enter a different range in the **From** and **To** fields, the **Date** field automatically shows **Custom**.
5. Check the box in the **Approve** column for each transfer order you want to approve.
6. The **Amount** field displays the total amount of orders you have checked for approval.
7. If a source location has not yet been selected, choose a source location.
8. Click **Submit**.

After a transfer order is approved, the items are committed to the transfer and cannot be sold while in transit. Approved transfer items also show as on order at the destination location.

You can now fulfill your transfer orders. To do this, go to Transactions > Sales > Fulfill Orders..

Resetting Approval Status

The status of an order that is approved and pending fulfillment can be reset to Pending Approval. If you have permission to approve and edit transfer orders, the Status field appears when you edit a transfer order that has not been fulfilled.

To reset the status, select Pending Approval in the Status field, then click Save. To edit an existing transfer order, go to Transactions > Inventory > Enter Transfer Orders > List.. Click Edit next to the order.

Fulfilling Transfer Orders

After a transfer order is entered, and approved if necessary, the order can be fulfilled. Fulfillment is the process of taking items out of inventory in one location and shipping the items to a second location.

For example, an approved transfer order for 50 widgets shows in the fulfillment queue for the warehouse at Location A. The transfer order shows that the widgets must be shipped to Location B. The warehouse supervisor pulls 50 widgets from inventory, packages them to be shipped and ships them out. Then, the manager marks the transfer order as fulfilled.

The fulfillment form defaults to show the department and class values entered on the transfer order.

After a transfer order is fulfilled, it has a status of Pending Receipt while the items are in transit between locations. This means the items have shipped out of the source location, but not yet been received into the receiving location.

When items are in transit, changes cannot be made to the transfer order for values in the item, quantity, or location fields.

If a transfer order includes a serialized or lot numbered item and the serial/lot numbers were not added when the transfer order was first entered, you must enter serial numbers in the Serial/Lot Numbers field on the fulfillment form.

You can fulfill a transfer order in the following ways:

- Fulfill multiple transfer orders by going to Transactions > Sales > Fulfill Orders. In the Transaction Type field, select Transfer Order.
- Fulfill a single transfer order by going to Transactions > Inventory > Enter Transfer Orders > List and clicking View next to the order. Then, click the Fulfill button.

For more details, read the help topic [Fulfilling Orders](#).

Transfer Order Fulfillment Quantities

You cannot fulfill more than the quantity on the transfer order.

Lines on transfer orders cannot be partially fulfilled unless the Use Item Cost as Transfer Cost preference is enabled for that transfer order. For details about this preference, read [Entering a Transfer Order](#) and [Transfer Order Preferences](#).

When you partially fulfill a transfer order quantity, you are required to match the fulfillment when it is received to process item costing accurately.

Transfer Order Fulfillment Status

As the order is processed, this field is updated to show the status, which can be one of the following:

- **Pending Approval** – The transfer order is entered but not yet approved. Items on the order are not yet committed to be transferred.
- **Pending Fulfillment** – The order is approved and ready to be fulfilled for transfer. Items on the order are now committed to be transferred.
- **Pending Receipt** – Items are in transit between locations. They have shipped out of the source location, but not yet been received into the receiving location.



Note: Items in this state are counted with the inventory of the source location.

- **Received** – Items have been received into the destination location. These items are now counted with the on-hand inventory for the destination location.
- **Rejected** – This transfer order has not been approved and is cancelled.

For more details on fulfilling orders, read the help topic [Fulfilling Orders](#).

Transfer Order Fulfillment and Commitment

You can choose how to process transfer order fulfillments based on item commitment. On the preference Fulfill Based on Commitment, your selection determines how the fulfillment form works:

- **Ignore Commitment** – The quantity field is disabled on the fulfillment.
- **Allow Uncommitted** – The partially committed lines are displayed on the fulfillment form with the committed quantities. To fulfill the partially committed lines, you must manually adjust the quantity being fulfilled to be equal to the order line quantity.
- **Limit to Committed** – The Fulfill button does not show on an order if it has no lines that are fully committed. When you click Fulfill on a transfer order, only fully committed lines show on the fulfillment form.

For details about setting preferences, read [Transfer Order Preferences](#).

Pick, Pack, and Ship with Transfer Orders

You can also use the Pick, Pack, and Ship feature to assist with processing transfer orders.

The Pick, Pack, and Ship feature gives your warehouse and shipping departments separate processes for each step to fulfill orders. This enables greater flexibility in processing and tracking the status of orders through the fulfillment and shipment processes.

For example, a warehouse manager uses individual steps to process each fulfillment. One employee picks the items off the shelves and another employee boxes them up and ships them. To know which orders are at which stage, he needs to mark each order for each step in the process.

The Pick, Pack, and Ship feature enables him to show each step separately for each order. The first employee pulls the items and marks them as fulfilled (picked). The second employee boxes the items and marks them as packed. He then ships the package and marks the order as shipped.

You use separate transactions for each step:

- to pick the items from inventory (Fulfill Orders)
- to pack the items to prepare them to be shipped (Mark Orders Packed)
- to ship the items to the receiver (Mark Orders Shipped)

For more information on enabling and using this feature, read the help topic [Pick, Pack, and Ship](#).



Note: Lines on transfer orders cannot be partially picked, packed or shipped. The entire line must be processed at one time. Also, you cannot pick, pack or ship more than the quantity on the transfer order.

Transfer Order Pick, Pack or Ship Quantities

You cannot pick, pack or ship more than the quantity on the transfer order.

Lines on transfer orders cannot be partially picked, packed or shipped unless the Use Item Cost as Transfer Cost preference is enabled for that transfer order. For details about this preference, read [Entering a Transfer Order](#) and [Transfer Order Preferences](#).

When you partially pick, pack or ship a transfer order quantity, you are required to match the fulfillment when it is received to process item costing accurately.

Receiving Transfer Orders

When items being transferred between locations are received by a warehouse, the transfer order must be marked as received. Receiving a transfer order does the following:

- Adds the quantities received into the inventory at the receiving location.
- Removes the value of the items from the Inventory In Transit account of source location.
- Adds the value of the items to the inventory asset account of the destination location.

For example, the warehouse manager at Location A shipped 50 widgets to you at Location B. While the items are in transit between locations, the 50 widgets continue to be counted with the inventory for Location A. When you receive the package of 50 widgets from your shipper, you mark the transfer order as received. Then, the 50 widgets are added to your inventory in Location B and removed from the inventory count at Location A.

You cannot receive more than the quantity on the transfer order.



Note: When you enter a receipt for a transfer order, the receipt cannot be dated prior to the shipment date of the order.

When you receive an intercompany transfer order, credits and debits are recorded in the general ledger in an intercompany clearing account for each subsidiary. These are standard accounts and cannot be deleted. For more information, see the help topic [Intercompany Clearing Account](#).

For details on steps to receive orders, read the help topic [Receiving Orders](#).

Receiving Transfer Orders and Transfer Cost

If the Use Item Cost as Transfer Cost preference is enabled for an order that is partially fulfilled, you must match the received quantity to a fulfillment when you receive lines on a transfer order. This ensures accuracy when tracking item costing.

To partially receive a transfer order, click Receive on the transfer order.

- If there is only one open item fulfillment, the item receipt page for that fulfillment opens.
- If there are multiple fulfillments open, a page displays the open fulfillments. Click Receive next to the fulfillment that corresponds to the transfer order you want to receive against. This enables NetSuite to link the item fulfillment cost to the item receipt cost.



Note: The item receipt quantity must match the item fulfillment quantity.

Alternatively, you can receive items by going to Transactions > Purchases > Receive Order and clicking the Receive link next to the order.

For details on steps to receive orders, read the help topic [Receiving Orders](#).

Transfer Orders and Landed Cost

If you use the Landed Cost feature, you should be aware of the way NetSuite handles transfer order receipts when you use the Cost method for landed cost allocation. If the inventory costing is recalculated on an item receipt for some line items, the landed cost of the items is not updated.

For example, an order includes two lines that have a cost of \$40 for line one and \$60 for line two. The landed cost is \$200, so \$80 applies to line one and \$120 applies to line two. Later, if the cost on the transfer order fulfillment gets updated by inventory costing calculations, that cost is propagated to the item receipt. If inventory costing updates the cost of the items on the receipt to be \$50 for line one and \$50 for line two (instead of \$40 and \$60), the landed cost on the receipt is NOT updated to \$100 for each line. It remains at \$80 and \$120.

Departments and Classes

The receipt form defaults to show the department and class values entered on the transfer order for the destination, unless the department or class is not available at the destination subsidiary. If a department or class is required on a transaction, then you must enter an available department or class on the receipt.

Item Value and Currency Calculations

Upon receiving the item, the value of the transferred item used on the item receipt is based on the transfer price on the transfer order.

If you use the Multiple Currencies feature, the item receipt uses an exchange rate which is the currency conversion between the source and destination locations. These can be set in the Currency field on the receipt.

For intercompany transfers between subsidiaries that use different currencies, the transfer price at the destination is equal to the transfer price at the source multiplied by the currency exchange rate at the time of product receipt.

Customizing Transfer Orders

You can use customization to tailor your use of transfer orders.

Linked Forms

You can specify which forms are used when processing transfer orders. For example, if you have created a custom pickling ticket, you can specify that transfer orders use that custom picking ticket by default when the order is being fulfilled.

To specify linked forms for transfer orders:

1. Go to Transactions > Inventory > Enter Transfer Orders.
2. In the **Customize** list, click **Customize Form**.
3. Enter a name for the new custom form.
4. Click the **Linked Forms** subtab.
A list of the transactions that you can specify forms for are shown.
5. Next to each form, select the appropriate form to be used by default in the **Custom Form** field.
For example, select a custom picking ticket form you prefer to use in the **Custom Form** field next to **Picking Ticket**. Then, when transfer orders are being picked, that is the form used by default.
6. Click **Save**.

Body Fields, Column Fields, and Item Options

To create new body fields, column fields, or item options:

1. Go to Customization > Lists, Records, & Fields.
2. Select one of the following:
 - Transaction Body Fields
 - Transaction Column Fields
 - Transaction Item Options
3. Click **New**.
4. On the **Applies To** subtab of the new record, check the **Transfer Order** box.
5. Click **Save**.

After you save the record, the new field or option shows on your transfer order forms.

Intercompany Inventory Transfers - Non-Arm's Length

In NetSuite OneWorld accounts, you can enter an Intercompany Transfer Order to move and track inventory between subsidiary locations within your company.

Use Intercompany Transfer Orders for non-arm's length transactions.

- For arm's length intercompany inventory transfers, see the help topic [Managing Intercompany Inventory Transfers - Arm's Length](#).

- For intercompany drop ship orders, see the help topic [Intercompany Inventory Drop Ship](#).

Enter an Intercompany Transfer Order to schedule items to be shipped out of one subsidiary location and received into the inventory at another subsidiary location. Intercompany transfer orders enable you to track items in transit between the two subsidiary locations.

For example, you have a surplus of widgets in Japan Subsidiary: Location A, but not enough stock of widgets in US Subsidiary: Location A. You can enter an Intercompany Transfer Order to move the widgets from Japan Subsidiary: Location A to US Subsidiary: Location A, where they are needed.

Permissions

To enter an intercompany transfer, you must have permission to access to the following:

- the source subsidiary
- the source location
- the common parent of the source subsidiary and destination subsidiary

To enter an intercompany transfer that is set to pending approval, you must have permission to access the destination subsidiary in addition to the above.

To fulfill an intercompany transfer or set it to pending fulfillment, you must also have permission to access the destination location.

If your access to subsidiaries or locations is restricted, and you may only process intercompany transfers between locations you are able to access. For details about restricted access, read the help topic [Restricting Access to Records by Location](#).

To enter an intercompany transfer order:

- Go to Transactions > Inventory > Enter Intercompany Transfer Orders.
- Complete the steps as described in the sections below.
- Click **Save**.

After being saved, an intercompany transfer order can be processed.

The Transfer Order Register report shows details for the source subsidiary and destination subsidiary.

Primary Information

- The **Order #** field shows the correct number if autonumbering is activated. Otherwise, enter the order number in this field.
- The current **Date** autofills. You can select or enter a different date.
- In the **Subsidiary** field, select the source subsidiary. The selection you make in this field determines which locations are available to be selected in the **From Location** field.

For example, you select Subsidiary A. Then, you choose a source location from a list of locations limited to only those associated with Subsidiary A.

- In the **To Subsidiary** field, select the subsidiary where the items are to be received. The selection you make in this field determines which locations are available to be selected in the **To Location** field.

For example, you select Subsidiary B. Then, you can choose a destination location from a list of locations limited to only those associated with Subsidiary B.

5. In the **From Location** field, select the originating location for the transfer. Items are taken out of this location and the inventory count for the item is decreased at the location when the order is fulfilled.



Note: When you enter an Intercompany Transfer, you must make a selection in the From Location field. The transfer cannot be approved without a source location identified.

6. In the **To Location** field, select the receiving location for the transfer. The inventory count and asset value for the item is increased at this location when the items are received.
You are required to make a selection in the **To Location** field to enter or approve a transfer order. The **Ship To Address** of the transfer order defaults to the address of the destination location.
7. Optionally choose an **Employee** to associate with this transfer order.
8. The **Status** field shows the current status of the transfer. The default status shown may be pending Approval or Pending Fulfillment, depending on the preference setting. For details on setting this default, read [Transfer Order Preferences](#).
9. When the **Firmed** box is checked, the line items are no longer eligible for reallocation to another order. The items must remain committed to the firmed order. Firmed transfer orders are not available to be rescheduled or cancelled.
10. In the **Memo** field, optionally enter information to identify this transaction in a list of other transactions. When you use the Search Transactions feature, you can search for specific words and phrases in the **Memo** field.
11. You can choose a setting for the **Use Item Cost as Transfer Cost** preference to apply to this transaction. However, an intercompany transfer order uses the transfer cost, instead of the item cost for costing calculations. For details about this preference, read [Transfer Order Preferences](#).



Note: If you use approval routing, this setting can be changed on a transfer order as long as the transfer order is not yet approved. After the transfer order is approved, this setting cannot be changed.

12. Use **Incoterms** to define when the transfer of ownership occurs for items being transferred between locations:
 - Ex Work (EXW) – inventory ownership is transferred at the shipping point
 - Delivered at Place (DAP) – inventory ownership is transferred at the destination point
 Be aware that the incoterm you select impacts accounting and inventory information.
When creating a transfer order, you can only select **EXW** or **DAP**. After the order status is pending approval or pending fulfillment, you can choose another incoterm.

Classifications

1. If you track **Departments** or **Classes**, the form defaults to show the department or class associated with the source subsidiary.

You can select another department or class if necessary.

Items subtab

1. In the **Item** field, select the item you want to transfer. Only inventory and assembly items can be added to a transfer order. You can also click the **Add Multiple** button to enter more than one item at a time.

The description of this item shows in the **Description** field.

Only available stock can be committed to transfer orders. The item to transfer must be available for both the source and destination subsidiaries.

2. In the **Quantity** field, enter the quantity of items you want to transfer to another location.



Note: You should not enter an item quantity that exceeds the item's quantity on hand at the location you are pulling items from inventory. Please review the quantity on hand at that location before entering a value in this field.

3. The **Transfer Price** field defaults to the value in the **Transfer Price** field on the item record. This is based on the currency of the root parent subsidiary. After you enter an intercompany transfer order, the transfer price converts from the root parent subsidiary currency to the currency of the source subsidiary.

You can accept the default value or enter a new one for this order.

4. The unit of measure for the item is displayed in the **Units** field. You can select another unit of necessary.
5. If the item you are transferring is a serial or lot numbered item, enter the serial or lot numbers.



Note: By entering a specific serial or lot number, you are designating a specific item and NetSuite attempts to allocate the specific item for this order.

If you do not enter a specific serial or lot number, NetSuite allocates only the specified quantity of this item to the order. Then, you can designate the specific serial or lot number for the item at a later time.

- Separate each serial number with a space, comma or by pressing Enter after each one.
- You must enter a serial number for each serialized item. For example, if you enter a quantity of 2, then you must enter two serial numbers.
- Lot numbers must be entered in this format: **LOT#(Quantity)**

For example, to enter a quantity of 100 items as Lot number ABC1234, enter **ABC1234(100)**.

When you enter a transfer order, you can enter the serial numbers for items you are transferring. However, you must enter a serial number for each item on the order. You cannot enter serial numbers for only some of the items. After you have entered serial numbers on a transfer order, the **Serial/Lot Numbers** field is disabled on the fulfillment form.

If you do not enter serial numbers for serialized items when you enter the transfer order, note the following. NetSuite enables the **Serial/Lot Numbers** field on the fulfillment form, and you must enter serial numbers there.

6. In the **Commit** column select one of the following:
 - **Available Qty** - Items for this line item are committed as available. Available items are shipped, and items that are not available are placed on backorder.
 - **Complete Qty** - This line item only ships when all items are committed.
 - **Do Not Commit** - Items are not committed to this line item until this setting is changed.
7. Set any options that apply to this item.
8. Click **Add**.
9. Repeat the steps above for each item you want to transfer between these locations.

Address subtab

1. The **Ship To Address** of the transfer order defaults to the address of the destination location. To enter an address manually, select **Custom** in the **Ship To Select** field and enter the address.

Shipping subtab

1. To calculate shipping for the transfer items:
 1. In the **Ship Via** field, select a shipping method.
 2. Click the **Calculate** button next to the **Shipping Cost** field.

 - If you require approval for transfer orders, approve the appropriate transfers at Transactions > Inventory > Approve Transfer Orders..
 - If you do not require approval for transfer orders, go to Transactions > Sales > Fulfill Orders..

Closing Transfer Orders

On transfer orders, you are able to close line items manually when you do not intend to transfer open items on the order.

For example, you enter a transfer order for ten widgets and have already transferred five of them. The warehouse manager informs you that the remaining five cannot be located to be transferred. If you close the line manually instead of changing the quantity, you retain a record of how many you originally planned to transfer.



Note: A line on a transfer order can be closed only if the in-transit quantity is zero.

Transfer order lines can be closed in two ways:

- To close individual lines on an order:
- To close all lines on an order at one time:

To close individual lines on an order:

1. Go to Transactions > Inventory > Enter Transfer Orders > List.
2. Click **Edit** next to the order.
3. On the **Items** subtab, each item line shows a box in the **Closed** column. Check the **Closed** box to close that line without transferring the item.
4. Click **Save**.

To close all lines on an order at one time:

1. Go to Transactions > Inventory > Enter Transfer Orders > List.
2. Click **View** next to the order.
3. Click **Close Order**.

This button shows only if the in-transit quantity is zero for all lines.

The order now shows the quantities that have been closed and has a transaction status of Closed.

After a line on a transfer order is closed, you cannot do the following:

- change the item receipt quantity

- create a new item receipt that links to the transfer order
- delete an existing item receipt that links to the transfer order

Inventory Replenishment and Withdrawal

When you stock and sell inventory in multiple warehouses and locations, it is important to be sure that your inventory is in the optimal location.

Moving items between retail locations or between storage and retail locations can help you have the right items in the right place at the right time. Merchandise planners can increase efficiency by reviewing the current inventory levels at each store and warehouse location to plan the right quantity to move at the right time, then moving merchandise where it is needed most.

For example, during peak season for an item, you can transfer inventory to have stock where it is needed. In the Spring season, you can move swimsuits out of warehouse storage and into retail locations, because swimsuit stock is in higher demand during that time of year.

Later, at the end of the Summer season to sell swimsuits, a retailer can withdraw swimsuit stock from the retail location to store them in a centralized warehouse, freeing up shelf space for product more appropriate to the season. Keeping an item stocked at a retail location has a high holding cost compared to storing the item in a warehouse, so withdrawing inventory can help keep costs down.

Use the following forms to move items between retail locations or between storage and retail locations:

Replenish Inventory

Move inventory between locations by creating inventory transfers or transfer orders.

- [Replenish Location by Inventory Transfer](#)
- [Replenish Location by Transfer Order](#)

Withdraw Inventory

Pull inventory out of a location by creating an inventory withdrawal.

To learn more, see [Withdrawing Inventory](#).

Replenish Location by Inventory Transfer

Use the Replenish Location worksheet to transfer inventory items between locations.

The replenish location worksheet is ideal for transferring inventory because it helps you determine your replenishment needs. It shows the following amounts for each item:

- quantity available in each location
- quantity on order
- quantity backordered
- reorder point (quantity must be zero or greater)
- preferred stock level

Based on this information, a quantity to transfer is suggested.

The replenish location worksheet creates a basic inventory transfer, not a transfer order. For details about transfers and transfer orders, read [Inventory Replenishment and Withdrawal](#) and [Replenish Location by Transfer Order](#).

To transfer inventory by inventory transfer:

1. Go to Transactions > Inventory > Replenish Location.
2. The current date autofills the **Date** field. Enter a different date if needed.
3. The current period autofills the **Period** field. Enter a different posting period if needed.
4. In the **Ref. No.** field, enter a reference number for this transaction.
5. In the **Memo** field, enter information to help you identify this transaction in a list of other transactions.

For example, when you use the Search Transactions feature, you can search for specific words and phrases in the **Memo** field.

6. In the **From Subsidiary** field, select the subsidiary where the items will be taken from. The selection you make in this field determines which locations are available to be selected in the From Location field.

For example, if you select Subsidiary B here, you can choose a source location from a list of locations limited to only those associated with Subsidiary B.



Note: This field shows only in OneWorld accounts.

7. In the **From Location** field, select the location where you want to remove items.
The location you choose will have its inventory reduced.
8. In the **To Location** field, select the location where you want to send the items.
The location you choose will have its inventory increased.
9. Select a **Department** or **Class** to associate with this transfer as needed.
10. Check the box next to each item quantity you want to transfer.
11. For each item listed, a quantity to transfer is suggested in the **Quantity** column. You can accept this amount or enter a new amount.
You cannot transfer a quantity greater than the **From Available** quantity.
12. Click **Save**.

An inventory transfer is created and your inventory is updated for each location.

You can view and edit transfers you create by going to Transactions > Inventory > Transfer Inventory > List.

To maximize the efficiency of the Replenish Location worksheet, your item records need to contain reorder point and preferred stock level quantities. For more information on setting up item records, read the help topic [Creating Item Records](#).

Replenish Location by Transfer Order

When you need to replenish stock at multiple locations, you need to know the best way to divide the available quantity of stock. The Replenish Location by Transfer Order page enables you distribute inventory across locations to allocate the right quantity for each store at the right time.

For items that have designated reorder points and preferred stock levels, distribution managers can review inventory shortages across multiple locations and create transfer orders that move items from one location to any locations where shortages are found.

Replenishing a location by transfer order enables you to quickly create a large number of transfer orders to distribute goods out of a source warehouse into multiple stores or warehouses.

The Replenish Location by Transfer Order page creates a transfer order, not a basic inventory transfer. For details about transfers and transfer orders, read [Inventory Replenishment and Withdrawal](#) and [Replenish Location by Inventory Transfer](#).

To use the Replenish Location by Transfer Order form, you must have these features enabled in your account:

- Multi-Location Inventory
- Advanced Inventory Management

For NetSuite OneWorld accounts, intercompany transfer orders are supported, so you can replenish a location by transfer order when there is a need for transfers across subsidiaries.

You must first setup reorder points and a preferred stock level for items that will need replenishment. Set up items at Lists > Accounting > Items. Read more details in [Entering Purchasing and Inventory Information on Items](#).

To replenish a location by transfer order:

1. Go to Transactions > Inventory > Replenish Location by Transfer Order.
2. The current date autofills the **Date** field. Enter a different date if needed. This date populates in the header on the transfer orders created.
3. In the **From Subsidiary** field, select the subsidiary where the items will be taken from. The selection you make in this field determines which locations are available to be selected in the From Location field.

For example, if you select Subsidiary B here, you can choose a source location from a list of locations limited to only those associated with Subsidiary B.



Note: This field is required. This field shows only in OneWorld accounts.

4. In the **To Subsidiary** field, select the subsidiary where the items are to be received. The selection you make in this field determines which locations are available to be selected in the To Location field.

For example, if you select Subsidiary B here, you can choose a destination location from a list of locations limited to only those associated with Subsidiary B.

This field is optional. This field shows only in OneWorld accounts.

5. In the **From Location** field, select the location where you want to remove items. The location you choose will have its inventory reduced.
6. In the **To Location** field, select the location where you want to send the items. The location you choose will have its inventory increased.
7. Select a **Department** or **Class** to associate with this transfer as needed. These classifications populate in the header on the transfer orders created.
8. Check the **Use Distribution Network** box if you use the Distribution Resource Planning feature and want to use a distribution network that you have set up.

After you have set up the Distribution Resource Planning feature, NetSuite can transfer inventory based on the established relationships between the source and destination location. If an item is associated with a distribution category and a distribution network, NetSuite can use the bill of distribution to replenish the location by transfer order. When you check the **Use Distribution**

Network box on the Replenish Location by Transfer Order form and the From Location is selected, NetSuite displays in the To Location field only locations that are associated by the preset bill of distribution and that require inventory based on preset reorder parameters.

For more details about the Distribution Resource Planning feature, read [Distribution Resource Planning](#).

9. If you use the Multiple Units of Measure feature, in the **Unit** field, choose to display item quantities in the Base Unit or Stock Unit of measure.
10. Use the **Create Transfer Order Based on Available Quantity** preference to determine the method for calculating the quantity to transfer.

For example, your Atlanta warehouse periodically receives a shipment from overseas of 50 purple swimsuits. Then, the warehouse needs to distribute inventory out of the warehouse and into the retail locations. Retail store space is limited and each location has different needs:

- Store 1 requested 50 purple swimsuits
- Store 2 requested 20 purple swimsuits
- Store 3 requested 30 purple swimsuits
- Clear this box to create a transfer order showing a quantity based on demand at the receiving location.
- Check this box to create a transfer order showing a quantity based only on supply at the source location. This option does not transfer more than the amount currently available in the source location. When this box is checked, the **Shortage Calculation Method** field is available.

For example, the warehouse has a fixed amount of stock to cover the shortages at all retail locations.

- If the total amount of warehouse stock is more than the total amount requested by retail stores, the needed items can be transferred immediately.
- If the total amount of warehouse stock is less than the total amount requested by retail stores, NetSuite uses a shortage handler. See the **Shortage Calculation Method** description below for details.

11. When the Create Transfer Order Based on Available Quantity box is checked, you can make a selection in the **Shortage Calculation Method** field. A shortage means the source location does not have enough stock to cover the total quantity requested by all locations and you must decide the best method to distribute the amount available. The following shortage distribution options are available:

- **Distribute Manually** – NetSuite does not calculate an amount to transfer. The transfer quantity defaults to zero and you manually enter the appropriate quantity to transfer.
- **Distribute Evenly Across Locations** – NetSuite divides the quantity available at the From Location evenly across all locations that need this item.
 - Based on the previous example when the warehouse has a total quantity of 50, then Store 1, Store 2, and Store 3 each receive a quantity of 16.
- **Distribute By Percentage of Total Requested** – NetSuite distributes items based on the quantity each location has requested.

For example, if one location has requested a higher quantity than another location, then NetSuite distributes more of the source items available to that location.

- Based on the previous example when the warehouse has a total quantity of 50, then stores receive the following quantities:
 - Store 1 requested 50. It receives a quantity of 25.
 - Store 2 requested 20. It receives a quantity of 10.
 - Store 3 requested 30. It receives a quantity of 15



Note: The Shortage Calculation Method column displays an icon only when a shortage exists.

When there is no shortage, the transfer quantity is automatically set to the quantity required for the To Location, even if the shortage calculation method is set to Distribute Manually.

12. Check the box next to each item you want to transfer.
An item shows in the list when the stock level is at or below the reorder point per location.
13. In the **Shortage** column, an icon displays a warning if the source location cannot fill the full amount requested by the location.
In the **View** field, you can select **View Shortages Only** to filter the list for items that have a shortage warning.
14. The **Lead Time** column displays the default lead time for this item. NetSuite sources the lead time from the following in this order:
 1. Lead Time set on the Bill of Distribution (when Distribution Resource planning is used)
 2. Lead Time set on the Item Record
 3. Lead Time set at Inventory Management Preferences
15. The following columns display the current item quantity at the location requesting items: **Available, On Order, Back Ordered, Reorder Point, Preferred Stock Level**.

This information can be used to make decisions about transferring inventory. For example, you can compare the Available quantity with the Preferred Stock Level for an item to determine if you need additional stock.

16. For each item listed, NetSuite suggests a quantity to transfer in the **Transfer Quantity** column. The suggested amount is based on your preference settings. You can accept this amount or enter a new amount.



Note: You cannot transfer a quantity greater than the **Available** quantity.

17. Optionally click the **Calculator** icon to display the information used to calculate the suggested transfer quantity.
18. The **Transfer Price** column displays the transfer price indicated on the item record.
19. Click **Submit**.

The transfer orders created are consolidated if the From Location and To Location are the same.

The following applies for transfer orders created in NetSuite OneWorld accounts:

- When the parent subsidiary is same, a transfer order is created.
- When parent subsidiary is not the same, an intercompany transfer order is created.

If you use approval routing, the Replenish Location by Transfer Order page will continue to indicate that items are needed until the transfer orders created upon submission are **approved**. After approval, the item quantities show as On Order.

Status

After submitting the form, you can view the status of order creation at Transactions > Inventory > Replenish Location by Transfer Order > Status.

The status list displays the following about each transfer order created:

- From Subsidiary (for NetSuite OneWorld accounts)
- To Subsidiary (for NetSuite OneWorld accounts)
- From Location
- To Location
- Status
- Transfer Order number
 - You can click this link to open the order.

Reorder Multiples

The recommended transfer order quantity does respect the reorder multiple setting on the item record.

When there is a supply shortage at the source location, the reorder multiple may not be satisfied. If the transfer quantity cannot reach the reorder multiple, NetSuite will recommend a zero transfer quantity.

For example, the following is true:

- Available Quantity (From Location) : 100
- Reorder Multiple : 40
- Quantity Required (To Location)
 - without reorder multiple: 90
 - with reorder multiple: 120

In this case, NetSuite recommends a quantity to transfer of zero because the requirement of 120 using the reorder multiple cannot be met.

For more information on reorder multiples, read the help topic [Entering Purchasing and Inventory Information on Items](#).

Withdrawing Inventory

Use the Withdraw by Transfer Order form to withdraw inventory out of multiple locations into one location. This is useful at the end of a season when individual stores need to remove inventory that did not sell during the intended season.

For example, at the end of the season to sell swimsuits, a retailer can withdraw swimsuit stock from the retail location to store the items in a centralized warehouse. Keeping an item stocked at a retail location has a high holding cost. Warehouse storage has a lower holding cost and also makes retail shelf space available for other products more appropriate to the current season. The transfer withdrawal identifies all stock of the item at one or more retail store locations and transfers it to the warehouse.

Merchandise planners can also assess slow moving inventory and use the Transfer Order Withdrawal to optimize inventory distribution over locations.

To withdraw inventory by transfer order:

1. Go to Transactions > Inventory > Withdraw by Transfer Order.
2. The current date autofills the **Date** field. Enter a different date if needed. This date populates in the header on the transfer orders created.

3. In the **From Subsidiary** field, select the subsidiary where the items will be taken from. The selection you make in this field determines which locations are available to be selected in the From Location field.

For example, if you select Subsidiary B here, you can choose a source location from a list of locations limited to only those associated with Subsidiary B.



Note: This field is required. This field shows only in OneWorld accounts.

4. In the **To Subsidiary** field, select the subsidiary where the items are to be received. The selection you make in this field determines which locations are available to be selected in the To Location field.

For example, if you select Subsidiary B here, you can choose a destination location from a list of locations limited to only those associated with Subsidiary B.

This field shows only in OneWorld accounts.

5. In the **From Location** field, select the location where you want to remove items. The location you choose will have its inventory reduced.
6. In the **To Location** field, select the location where you want to send the items. The location you choose will have its inventory increased.
7. Select a **Department** or **Class** to associate with this transfer as needed. These classifications populate in the header on the transfer orders created.
8. Check the **Use Distribution Network** box if you use the Distribution Resource Planning feature and want to use a distribution network that you have set up.

After you have set up the Distribution Resource Planning feature, NetSuite can transfer inventory based on the established relationships between the source and destination location. If an item is associated with a distribution category and a distribution network, NetSuite can use the bill of distribution to withdraw inventory by transfer order. When you check the **Use Distribution Network** box on the Withdraw by Transfer Order form and the To Location is selected, NetSuite displays in the From Location field only locations that are associated by the preset bill of distribution.

For more details about the Distribution Resource Planning feature, read [Distribution Resource Planning](#).

9. If you use the Multiple Units of Measure feature, in the **Unit** field, choose to display item quantities in the Base Unit or Stock Unit of measure.
10. Check the box next to each item you want to transfer.

- a. **Lead Time** is the average number of days between ordering an item from a vendor and receiving it.
 - If you use the Distribution Resource Planning feature, then the lead time shown is based on the bill of distribution.
 - If the bill of distribution does not specify a lead time, then the lead time shown is based on the item record.
 - If lead time is not specified on either the bill of distribution or the item record, then the lead time shown is based on set inventory management preferences. For details, read [Setting Up Advanced Inventory Management](#).

You can change the default as necessary.

- b. The **Transfer Quantity** field displays recommended quantity to transfer. NetSuite recommends by default to withdraw the entire available quantity in the From Location.
- c. The **Transfer Price** column displays the transfer price indicated on the item record.

11. Click **Submit**.

The transfer orders created are consolidated if the From Location and To Location are the same.

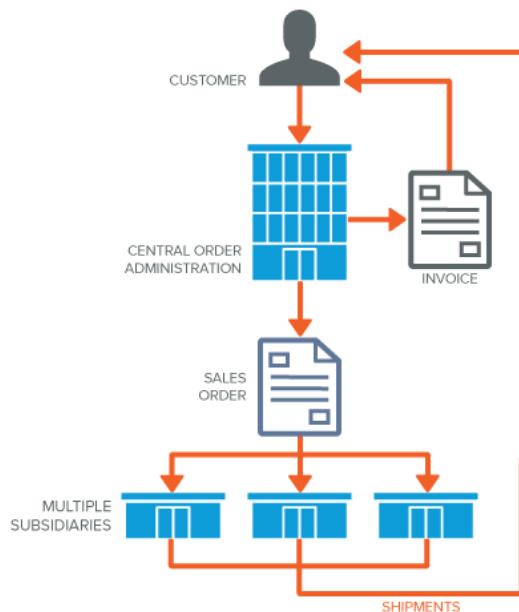
Status

After submitting the form, you can view the status of order creation at Transactions > Inventory > Withdraw Transfer Order > Status.

Intercompany Cross-Subsidiary Fulfillment

Use the Intercompany Cross-Subsidiary Fulfillment feature in your NetSuite OneWorld account to fulfill orders and receive returns across multiple subsidiaries.

This means that orders are not limited to be fulfilled from locations within the originating sales subsidiary. Rather, you can fulfill a single sales order from locations in multiple subsidiaries.

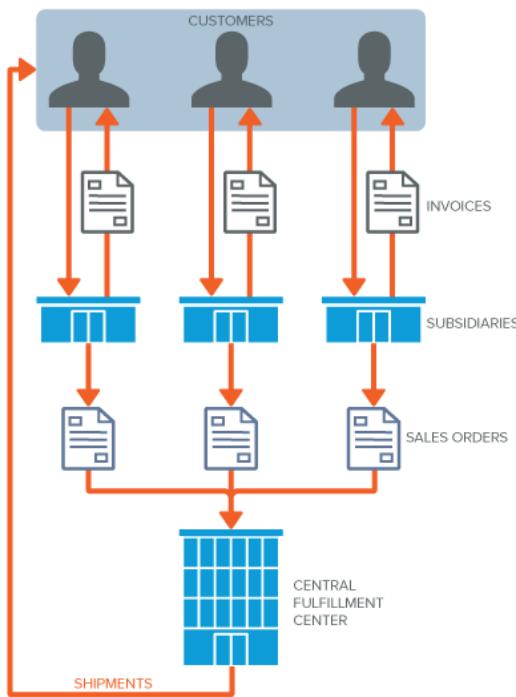


For example, your process may include having a central order administration in your U.S. subsidiary that manages order placement and sales for the entire company. Because you have distribution centers in many subsidiaries, an order placed in the sales subsidiary might best be fulfilled using inventory from one or more locations in other subsidiaries to reduce shipping costs. When each sales order is entered, individual lines on the order can be assigned to a specified subsidiary for fulfillment. Then, each line—item on the order can be fulfilled and shipped from individual subsidiaries. Finally, an invoice for the order is generated from the originating central order subsidiary to send to the customer.

In this way, using the Intercompany Cross-Subsidiary Fulfillment feature can reduce maintenance associated with intercompany inventory transaction processing. There is less need to enter and process drop ship orders or intercompany transfer orders to get inventory where it needs to be. This also means reduced accounting steps to process intercompany fulfillment and receipt transactions.

Additionally, using this feature, you can do the following:

- Create a return material authorization (RMA) associated with one subsidiary and receive the RMA line-items in one or more locations in other subsidiaries.
- Enter sales orders from multiple sales locations and then fulfill the orders from a centralized location.



Do the following to use the Intercompany Cross-Subsidiary Fulfillment feature:

- Enable the Intercompany Cross-Subsidiary Fulfillment feature.
Read [Enabling Intercompany Cross-Subsidiary Fulfillment](#).
- Create Global Inventory Relationship records that define which places inventory to fulfill orders can be sourced from.
Read [Creating a Global Inventory Relationship Record](#).
- Process Intercompany Cross-Subsidiary transactions.
Read [Processing Sales and Returns Using Intercompany Cross-Subsidiary Fulfillment](#)
- Set up Cross-Subsidiary Rules on shipping item records.
Read the help topic [Creating Shipping Items](#).

Enabling Intercompany Cross-Subsidiary Fulfillment

to use Intercompany Cross-Subsidiary Fulfillment, you must enable the feature in your account.

To enable Intercompany Cross-Subsidiary Fulfillment:

1. Go to Setup > Company > Enable Features.
2. Check the **Items & Inventory** subtab.
3. Check the **Multi-Location Inventory** and **Intercompany Cross-Subsidiary Fulfillment** boxes.
4. In the **Transactions** subtab, check the **Advanced Shipping** and **Multiple Shipping Route**s boxes.
To enable Multiple Shipping Routes, you first need to enable [Required Features and Settings for SCIS](#).
5. Click **Save**.

To create a global inventory relationship:

1. Go to List > Supply Chain > Global Inventory Relationship > New.
2. Create a new **Global Inventory Relationship**:
 - a. In the **Originating Subsidiary** field, select **CAN Subsid.**
 - b. In the **Inventory Subsidiary** field, select **UK Subsid.**

CAN Subsid now can sell items and send them to UK Subsid.
3. Click **Save**.

To create a custom sales order:

1. Go to Transactions > Sales > Enter Sales Orders.
2. Click Customize > Customize Form.
3. In the **Screen Fields** subtab, click the **Items** tab.
4. Beside **Allow Cross-Subsidiary-Fulfillment**, check the **Show** box.
5. Click **Save**.
6. Go to Transactions > Sales > Enter Sales Order.
7. Select the **Custom Sales Order** form you just created in step 4.
8. Select a **Customer**.
For example, CAN Customer.
9. In the **Items** subtab check the **Allow Cross-Subsidiary Fulfillment** box.
10. Select an **Item**.
For example. Ergonomic Keyboard.
11. In the Inventory Location column, select UK Only Location.
The Inventory Subsidiary columns is automatically populated.
12. Click **Add**.
13. Clear the **Allow Cross-Subsidiary-Fulfillmen**t box.
14. Clear the **Inventory Location** column.
15. Click **Save**.



Important: The Intercompany Cross-Subsidiary Fulfillment feature is currently not compatible with this SuiteApp: NetSuite Warehouse Management System (WMS) Advanced. If you enable this feature, errors might occur when you process inventory using this SuiteApp.

Creating a Global Inventory Relationship Record

To use the Intercompany Cross-Subsidiary Fulfillment feature to fulfill or receive inventory, create Global Inventory Relationship (GIR) records. These define which places inventory can be sourced from to fulfill orders and where orders can be received.

Note that, when using the Intercompany Cross-Subsidiary Fulfillment feature, a subsidiary can still ship to their own customers from any of their own locations without setting up a GIR.

Global Inventory Relationship records define the relationship between subsidiaries and their associated locations.

To create a Global Inventory Relationship Record:

1. Go to Setup > Company > Enable Features.
2. Complete information in the sections described below.
3. Click **Save**.

Primary Information

1. Select an **Originating Subsidiary**. This is the subsidiary to be associated with the originating sales order or return materials authorization (RMA).
2. Select an **Inventory Subsidiary**. This is the subsidiary whose locations can fulfill a sales order or receive an RMA from customers in the Originating Subsidiary.
3. Check the **Inactive** box to prevent this GIR record from displaying in lists on records and transactions.

A Global Inventory Relationship record cannot be inactivated in these cases:

- After the record is used on a sales order that enables the preference to Allow Cross-Subsidiary Fulfillment
- After the record is used on a customer return authorization that enables the preference to Allow Cross-Subsidiary Customer Returns

On each subtab below, define the locations to associate with this GIR for processing fulfillments and customer returns. The locations you select on these subtabs determine the locations you can fulfill from or receive to on transactions set to Allow Cross-Subsidiary Fulfillment or Returns. The list of fulfillment locations can be different than the list of locations for returns.

Fulfillment

1. Click the **Fulfillment** subtab.
2. In the **Location** list, select one or more locations to define where you want to allow fulfillment from. Then, when a subsidiary is selected a transaction, orders entered and set to Allow Cross-Subsidiary Fulfillment can be fulfilled only from the locations defined on this GIR record.

Only these locations are available for selection in the Inventory Location list on the sales order line.



Note: After you save the Global Inventory Relationship record, you can change which locations are listed here. Changes will affect only future sales orders you enter.

3. Check the **All Fulfillment Locations** box to add all locations associated with the selected Inventory Subsidiary.

Because this box is checked by default, all locations are included by default.

When this box is checked, this GIR record is linked to the Inventory Subsidiary record and the location list automatically syncs to stay updated. As locations are added or deleted from the subsidiary record, those locations are also added to or removed from this location list. For example, if this GIR is associated with Subsidiary A and you add three new locations to the Subsidiary A record, this GIR record updates to be associated with the three new locations.

4. Click **Add Multiple Locations** to add individual locations that are associated with the selected Inventory Subsidiary one at a time.
5. Click **Remove All Locations** to clear the list of associated locations.

Customer Return

1. Click the **Customer Return** subtab.
 2. In the **Location** list, select one or more locations to define where you want to allow receipt of returns. Then, when a subsidiary is selected a transaction, returns entered and set to Allow Cross-Subsidiary Fulfillment can be received only in the locations defined on this GIR record.
- Only these locations are available for selection in the Inventory Location list on the return.



Note: After you save the Global Inventory Relationship record, you can change which locations are listed here. Changes will affect only future sales orders you enter.

3. Check the **All Customer Return Locations** box to add all locations associated with the selected Inventory Subsidiary.

Because this box is checked by default, all locations are included by default.

When this box is checked, this GIR record is linked to the Inventory Subsidiary record and the location list automatically syncs to stay updated. As locations are added or deleted from the subsidiary record, those locations are also added to or removed from this location list. For example, if this GIR is associated with Subsidiary A and you add three new locations to the Subsidiary A record, this GIR record updates to be associated with the three new locations.

Deleting a Global Inventory Relationship Record

A Global Inventory Relationship record cannot be deleted in these cases:

- After the record is used on a sales order that enables the preference to Allow Cross-Subsidiary Fulfillment
- After the record is used on a customer return authorization that enables the preference to Allow Cross-Subsidiary Customer Returns

Processing Sales and Returns Using Intercompany Cross-Subsidiary Fulfillment

When using the Intercompany Cross-Subsidiary Fulfillment feature, sales and returns can be processed across more than one subsidiary.

- Enable the Allow Cross-Subsidiary Fulfillment preference on a sales order. See [Intercompany Sales and Fulfillment](#).
- Enable the Allow Cross-Subsidiary Customer Return preference on a return materials authorization (RMA). See [Intercompany Return Materials Authorization \(RMA\)](#).

Note the following about these preferences:

- These preference boxes are hidden and checked by default. You must customize transaction forms to show the boxes on Items subtab of a sales order or RMA form. To do so, click Customize on the form.
- To check these boxes, you must also check the Multiple Shipping Routes box, which is also located on the Items subtab of the forms.
- You cannot disable the Allow Cross-Subsidiary Fulfillment preference when the Global Inventory Relationship record is linked to a sales order.
- You cannot disable the Allow Cross-Subsidiary Customer Return preference when the Global Inventory Relationship record is linked to a sales order.

Also, using Intercompany Cross-Subsidiary Fulfillment, the Location field is replaced by the Inventory Location field on line items of a sales order or RMA. Then, the Location field in the Classification section on the form is used to associate the transaction with a location for accounting purposes. The Inventory Location field on each transaction line is used for inventory management.



Note: You cannot create, edit, or delete an Intercompany Sales Order Fulfillment or Intercompany Receipt when the quantity shipped is fewer than the quantity received on the linked Intercompany Purchase Order.

Intercompany Sales and Fulfillment

On a sales order, choose a setting for the Allow Cross-Subsidiary Fulfillment preference on the Items subtab of the form. Your selection here determines which locations show in the Inventory Location field as available to fulfill from.

- Clear the **Allow Cross-Subsidiary Fulfillment** box to allow fulfillment only from locations directly associated with the transaction subsidiary.
- Check the **Allow Cross-Subsidiary Fulfillment** box to allow fulfillment from locations listed on GIR records associated with the transaction subsidiary.

This box is checked and all locations are included by default.

The Inventory Location column and Inventory Subsidiary column show for line items only after the Allow Cross-Subsidiary Fulfillment feature is enabled. For each line item, use the Inventory Location field to select the fulfillment location. This field shows these locations:

- Locations directly associated with the transaction subsidiary
- Locations listed on the Fulfillment subtab of related GIR records

Intercompany Return Materials Authorization (RMA)

On a return materials authorization (RMA), choose a setting for the Allow Cross-Subsidiary Returns preference. Your selection here determines which locations are available to receive the order in the Inventory Location field.

- Clear the **Allow Cross-Subsidiary Returns** box to allow returns to be received only from locations directly associated with the transaction subsidiary.
- Check the **Allow Cross-Subsidiary Returns** box to allow receipt of returns to locations listed on GIR records associated with the transaction subsidiary.

This box is checked with all locations included by default.

The Inventory Location column and Inventory Subsidiary column show when the Allow Cross-Subsidiary Fulfillment feature is enabled. For each line item, use the To Location field to select the receiving location. This field shows these locations:

- Locations directly associated with the transaction subsidiary
- Locations listed on the Customer Return subtab of related GIR records

Intercompany Receipt

For receipts set to Allow Cross-Subsidiary Returns, select a receiving location on each transaction line in the To Location field. This field shows these locations:

- Locations directly associated with the transaction subsidiary
- Locations listed on the Customer Return subtab of related GIR records

Role and Permission Considerations

Depending on the role you use, you may have restricted access to create, edit, or view forms and data associated with subsidiaries and locations. However, when the Intercompany Cross-Subsidiary Fulfillment feature is enabled, restrictions are lifted for processing cross-subsidiary transactions in the following cases:

- **Fulfillments**

- You can enter a sales order in your subsidiary and select any of your subsidiary's GIR fulfillment inventory locations on the lines of that sales order, regardless of your authorized access to other subsidiaries.
- You can fulfill a sales order line for your inventory location on a sales order that originated in a subsidiary you are not authorized to access.

- **Customer Returns**

- You can create an RMA in your subsidiary and select any of their subsidiary's GIR customer return inventory locations on the lines of that RMA, regardless of your authorized access to other subsidiaries.
- You can receive an RMA line for your inventory location on an RMA that originated in a subsidiary you are not authorized to access.

Warehouse Processing

You can process inventory items and materials that you receive from your vendors to get them ready to ship to customers. A combination of item, manufacturing, and inventory management features supports the following warehouse processes:

- [Identification with Bar Coding](#) - You can use the Bar Codes and Labels feature to configure, identify, and scan bar codes for inventory items. If you use the Serialized Inventory or Lot Tracking features, you can scan bar codes for serial or lot numbers.
- [Manufacturing of Inventory Items](#) - If you use the manufacturing and item features, such as Assembly Items, you can build assemblies within your warehouse.
- [Organization with Bin Management](#) - If you use bins in your warehouse, you can enable the Bin Management or Advanced Bin features to track inventory in bins.
- [Processing Inventory Counts](#) - You can use the Inventory Count feature to record inventory counts in your warehouse.
- The identification process uses the Bar Codes and Labels feature to identify and track items. Bar codes also identify transactions and enable you to process them more quickly.
- In the manufacturing process, items are assembled or packaged for sale as kits or groups.
- Organization is achieved in a warehouse using the Bin Management feature or Advanced Bin / Numbered Inventory Management feature. You can track bins and associated bins with items to exactly where an item is stored within a warehouse.

Identification with Bar Coding

Instead of manually entering items and transaction numbers, you can scan item bar codes. You can integrate bar code scanning of inventory items into your inventory workflow in the following ways:

- Scan item bar codes to add them to sales transactions or receive them on a purchase transaction.

- Scan transaction bar codes to bulk receive, fulfill, pick, pack, ship, bill, or approve orders.
- Print item labels that show the price, bar codes for item numbers, and bar codes for serial or lot numbers if you track serialized or lot-numbered inventory.

The screenshot shows the 'Print Item Labels' dialog box. At the top are buttons for Print, Cancel, Mark All, and Unmark All. Below that is an 'ITEM TYPE' dropdown set to 'Inventory Item' and a checkbox for 'PRINT NON-SELLABLE ITEMS' which is unchecked. Under 'ITEM LABEL LAYOUT', there's a dropdown set to '- System Preference -'. In the 'CURRENCY' section, 'USA' is selected. The 'STARTING LABEL' field contains '1'. On the right side, there are several checked checkboxes: 'PRINT NAME/NUMBER BAR CODE', 'PRINT DISPLAY NAME/NUMBER', 'PRINT SERIAL NUMBER BAR CODE', and 'PRINT EXPIRATION DATE'. There's also a checked checkbox for 'PRINT SALES PRICE' with a dropdown next to it set to 'Base Price'.

For more information, see the help topic [Bar Codes and Item Labels](#) or [Scanning Bar Codes](#).

Manufacturing of Inventory Items

Inventory item types for manufacturing include Groups, Kit/Packages, and Assemblies. You can track your inventory throughout the manufacturing process, as you build or package inventory items that you send to customers.

To learn about the differences between the item types, see the help topic [Groups, Assemblies, and Kit/Packages](#). For more information about the manufacturing process, see the help topic [Manufacturing Overview](#).

Organization with Bin Management

[Bin Management](#) lets you identify areas where you store inventory items and track the on-hand quantity of these items in bins. Within your warehouse, operators can determine where to go to find items for picking and fulfilling orders. You can also use bins to specify where to put away items in stock when you receive them.

If you track serialized and lot-numbered inventory, you can use the [Advanced Bin / Numbered Inventory Management](#) to manage these item types in bins.

Processing Inventory Counts

If you use the [Inventory Count](#) feature, you can record and track the details of inventory counts in your warehouse. You can create calculated or manual counts. In combination with the Bin Management features, you can track and count inventory items in bins.

Advanced Inventory Management

You can use the Advanced Inventory Management (AIM) feature to automate demand-based inventory replenishment.

After you select the Reorder Point replenishment method, you enter inventory management settings on item records. NetSuite then anticipates future demand for the item and adjusts suggested item ordering. Based on previous purchases and sales of items, your account calculates appropriate reorder points and preferred stock levels for items.



Note: Items that use the Reorder Point replenishment method for Advanced Inventory Management calculate demand differently from items that use Demand Planning. Demand Planning uses demand plans and supply plans to configure replenishment for items set to use the Time Phased replenishment method. For more information, see [Demand Planning](#).

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Item Records

The Advanced Inventory Management feature enables you to use item records to track Lead Time, Safety Stock, and Seasonal Demand for inventory. Item records also show the quantity available for each item. These figures are used to continually assess stock needs and modify replenishment orders.

These automated calculations enable you to maintain an ideal stock level and minimize excess inventory. However, you can override or disable the calculations to handle unusual circumstances. You can also disable advanced inventory management functions for an individual item. Then you can revert the lead time, preferred stock level, and reorder point back to the last manually entered value.

When you enable Advanced Inventory Management, data is auto-calculated the first night, regardless of the week day set for regular weekly recalculations.

Enabling the Advanced Inventory Management Feature

An administrator can enable Advanced Inventory Management using the steps in the following procedure.

To enable Advanced Inventory Management:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab, and then check the **Advanced Inventory Management** box.
3. Click **Save**.

NetSuite automatically enables the following features:

- Bar Coding and Item Labels
- Lot Tracking
- Matrix Items
- Pick, Pack, and Ship
- Serialized Inventory
- Multiple Units of Measure

When you use the Advanced Inventory Management feature, the following features are accessible, but not automatically enabled:

- Advanced Bin / Numbered Inventory Management
- Advanced Inventory Management
- Bin Management
- Landed Cost

Inventory and Assembly Item Support

Advanced Inventory Management supports inventory and assembly items. Transactions using kits or item groups are used in AIM, but applied only for member items. AIM is not run for kit/group parent items.

AIM is run for all items when Reorder Point is the selected Replenishment Method. On each item record, you can select whether to run aim for each variable – Preferred Stock Level, Reorder Point, and Lead Time. Click the Auto-calculate box next to the field.

You can also set the item record values for Safety Stock Level Days, Expected Demand Change, and whether to use Seasonal Demand.

AIM calculations are typically scheduled to run weekly. It is not a real-time calculation. Transactions are entered after the AIM calculations complete, they are not considered. You can manually initiate a calculation from the Day of Week To Perform Calculation and Time of Day to Perform Calculation preferences.

If Preferred Stock Level, Reorder Point, and Lead Time are set to Auto-calculate, calculations proceed as follows:

- **Date of First Sale / Date of First Order** – This is a hidden variable. It validates whether there is sufficient information to process for an item. NetSuite uses the first sale or first order date (based on the Transaction to Consider preference). If you use Multi-Location Inventory, this is calculated for each item/location pair. If you do not use Multi-Location Inventory, it is calculated for each item.
- **Demand per Day** – This is also a hidden variable, but a key value in calculating other AIM variables. If you use Multi-Location Inventory, we calculate this value with respect to each active location.

We consider transactions based on the Transactions to Consider preference within time boundaries, the analysis interval. If seasonal demand is on, the starting point is today minus 365 days. The end point is the starting point plus the number of days specified by the Seasonal Analysis Interval. There is some expectation that seasonal demand will be comparable year over year. The size of the seasonal “window” is determined by the Seasonal Analysis Interval.

If seasonal demand is off, the starting point is today minus the Order Analysis Interval in days. The end point is today.

NetSuite calculates by summing the item quantities of Transactions to Consider within the analysis interval. It then divides that by the number of days within the interval to arrive at the demand per day. If an order has been closed, NetSuite uses only the quantity that has been fulfilled or built. If the order is not closed, NetSuite uses the original item line quantity.

NetSuite verifies if the **Date of First Sale / Date of First Order** is prior to the start of the analysis interval. This verification is to ensure sufficient data exists. For example, you cannot perform seasonal demand calculation if the **Date of First Sale / Date of First Order** was last week.

- **Auto-Calculate Lead Time** – Respects the preference Use Lead Time and Safety Stock per Location. The lead time is set to the average lead time of the three most recent fully received Purchase Orders. You must have at least three Purchase Orders with corresponding Item Receipts. You could also have corresponding Vendor Bills, which is relevant when the Bill in Advance of Receipt preference is enabled.

For each three purchase orders, NetSuite takes the difference between the Purchase Order transaction date and the date of the final corresponding receipt. The lead time is then set to the simple average of these three individual lead times.

Note that this value refers to the purchasing lead time and not the work order lead time, also known as the build time. For assembly items, you must enable the preference Allow Purchase of Assembly Items for meaningful auto calculations to occur. Go to Setup > Accounting > Accounting Preferences > Order Management > Work Orders. AIM does not support auto-calculation of the work order lead time.

- **Auto-Calculate Reorder Point** – Respects the preference Use Lead Time and Safety Stock per Location.

The formula for calculating the reorder point is expressed as the rounded value of the following:

$$(\text{Demand per Day} * \text{Estimated Demand Change} * (\text{Lead Time days} + \text{Safety Stock days})) + \text{Safety Stock units}$$

For example, your Demand per Day is 20 units. If your Estimated Demand Change is 5%, your demand per day is $20 \text{ units} * 1.05 = 21 \text{ units}$. If your lead time is 5 days – it takes 5 days from when you place your Purchase Order to receive it into inventory. Therefore, you need at least $21 \text{ units} * 5 \text{ days} = 105 \text{ units}$ on-hand to avoid stockouts. If you placed your Purchase Order when you had 21 units, you would be able to fulfill orders for a single day. You would have to wait an additional 4 days for your order to arrive.

Safety stock in days means that you want an additional **n** days as a buffer. If you set **Safety Stock** to 2 days, in the preceding example, you add that to your lead time days. Therefore, you want $21 \text{ units} * (5 \text{ days} + 2 \text{ days}) = 147 \text{ units}$. Your final calculated reorder point is 147 units.

However, you can choose to set your safety stock in units, instead of days. You set your safety stock to 30 units. Now your safety stock in days is unset. Therefore, the formula process this as: $(21 \text{ units} * (5 \text{ days} + 0 \text{ days})) + 30 \text{ units}$. Your final reorder point in this scenario is 135 units.

In the preceding formula, if the value is null for three specific options, NetSuite calculates differently. The options include Estimated Demand Change, Lead Time days, and Safety Stock days. When the value is null, NetSuite uses the default value set in the Inventory Management Preferences. For Demand per Day and Safety Stock units, if the value is null, NetSuite use zero.

- **Auto-Calculate Preferred Stock Level** – Respects the preference Use Lead Time and Safety Stock per Location.

The preferred stock level is given by the greater of two values, the Reorder Point and the following rounded value:

$$\text{Demand per Day} * \text{Estimated Demand Change} * \text{Preferred Stock Level days}$$

In the preceding example, your item has a Demand per Day of 20 units. Your Estimated Demand Change is 5%, giving your “true” demand per day of $20 \text{ units} * 1.05 = 21 \text{ units}$. Your Reorder Point has already been calculated as 147 units.

You prefer to keep enough stock for 10 days, your Preferred Stock Level days is set to 10 days. NetSuite takes $10 \text{ days} * 21 \text{ units} = 210 \text{ units}$, which is greater than your Reorder Point of 147 units. Therefore, your final Preferred Stock Level is 210 units.

If your Preferred Stock Level days is instead 5 days, then $5 \text{ days} * 21 \text{ units} = 105 \text{ units}$. This amount is less than your Reorder Point of 147 units, therefore, your final Preferred Stock Level is 147 units. You cannot have a Preferred Stock Level less than your Reorder Point or you would run into stockouts.

If the Estimated Demand Change or Preferred Stock Level days is null, NetSuite uses the default value set in the Inventory Management Preferences. If Demand per Day is null, NetSuite uses zero.

Best Practice Using Auto-Calculation

After you enable the Advanced Inventory Management feature, there is a best practice when you set up inventory records. Do not immediately enter settings to auto-calculate stock levels and demand for

ordering items. This is a best practice because if there is not enough sales history when you begin using auto-calculation, the data may be inaccurate.

The auto-calculation uses the full interval only if there are sales for the item before the beginning of the interval. If there are no sales before the beginning of the interval, the auto-calculation is attempted using half the interval. If there is not enough data to make calculations using the half-interval, the reorder point and preferred stock level remain unchanged. Later, you can enter manual metrics, or the auto-calculations can occur at a later date when there is enough sales data.



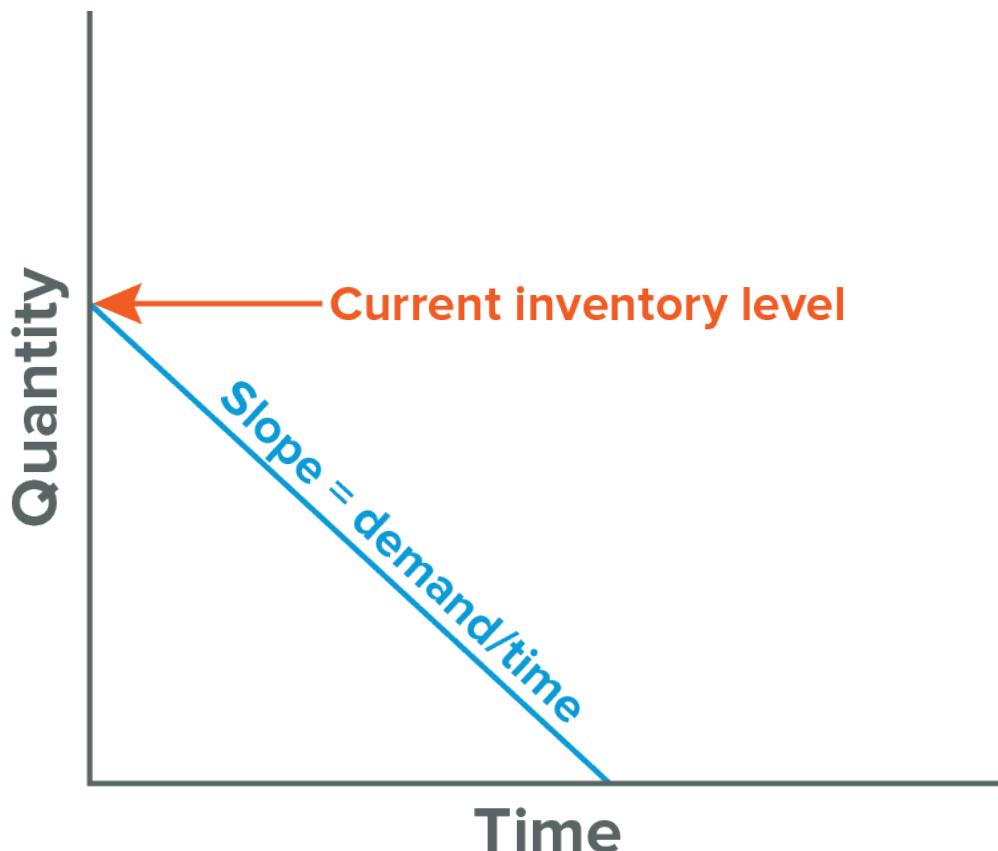
Important: Avoid entering a set value for the inventory level initially, and then later activate the auto-calculation function through a mass update on item records. For more information about mass updates, see the help topic [Mass Changes or Updates](#).

Advanced Inventory Management FAQ

The suggestions in this topic apply specifically to users with known and fixed demand for inventory replenishment using an inventory Order-Up-To policy.

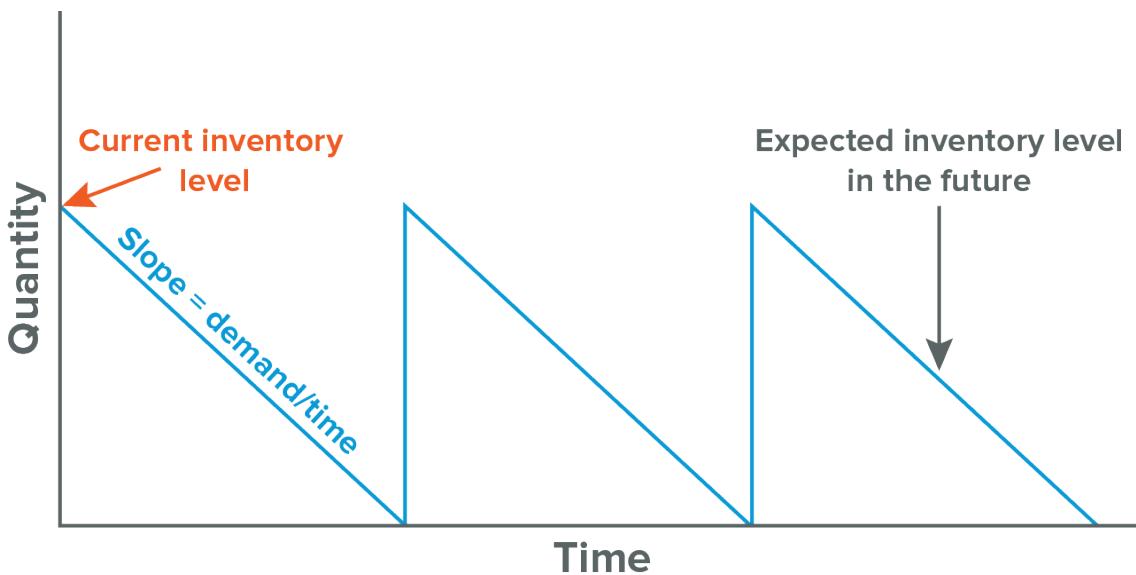
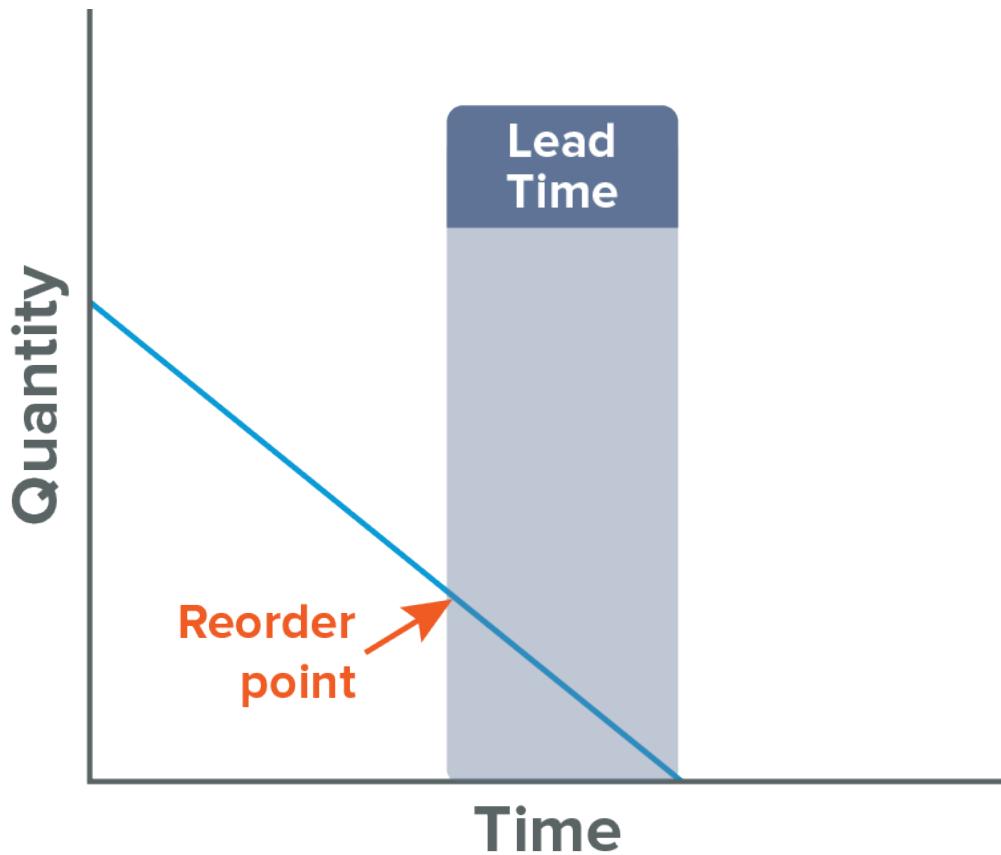
When will the current inventory level reach zero?

Inventory will reach zero based on the demand of the product. NetSuite calculates the demand of the product from sales orders and opportunities. NetSuite uses Order Analysis Interval or Seasonal Analysis Interval based on the selection on the Inventory Management Preference page. Your setting for the Estimated Demand Change can be used to adjust the demand from the calculated expected demand.



When should I order the item? At what inventory level should I start to place an order for a vendor? What is the reorder point?

You know the lead time from vendor and the demand (slope). Therefore, the reorder point is based on (demand / time * lead time). If you set the Autocalculate box, the lead time can be autocalculated based on the past three purchases. Lead time can also be overridden.

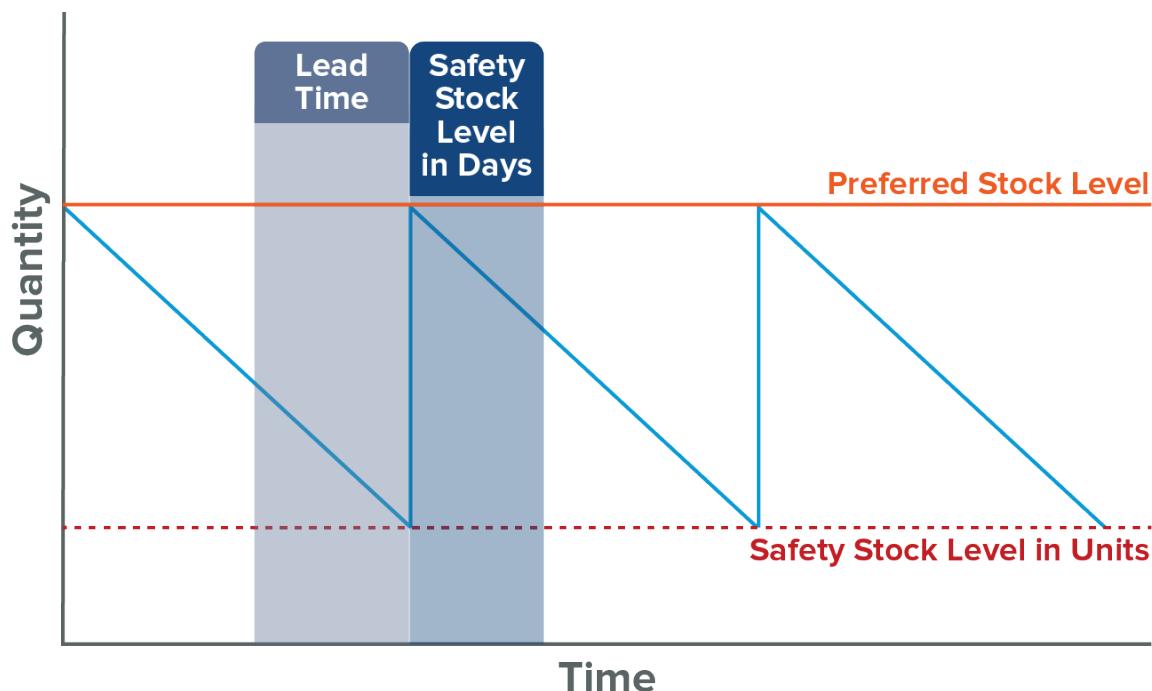


How much should I order?

The amount of inventory to be ordered can be based on the difference between the preferred stock level and the reorder point. The preferred stock level can be set manually. You can also let NetSuite autocalculate the preferred stock level based on the number of days of inventory you want to keep. For example, you may want to always keep 5 days worth of inventory on hand.

The autocalculation is based on this formula: (demand/days) * (amount in the Days field next to the Preferred Stock Level field).

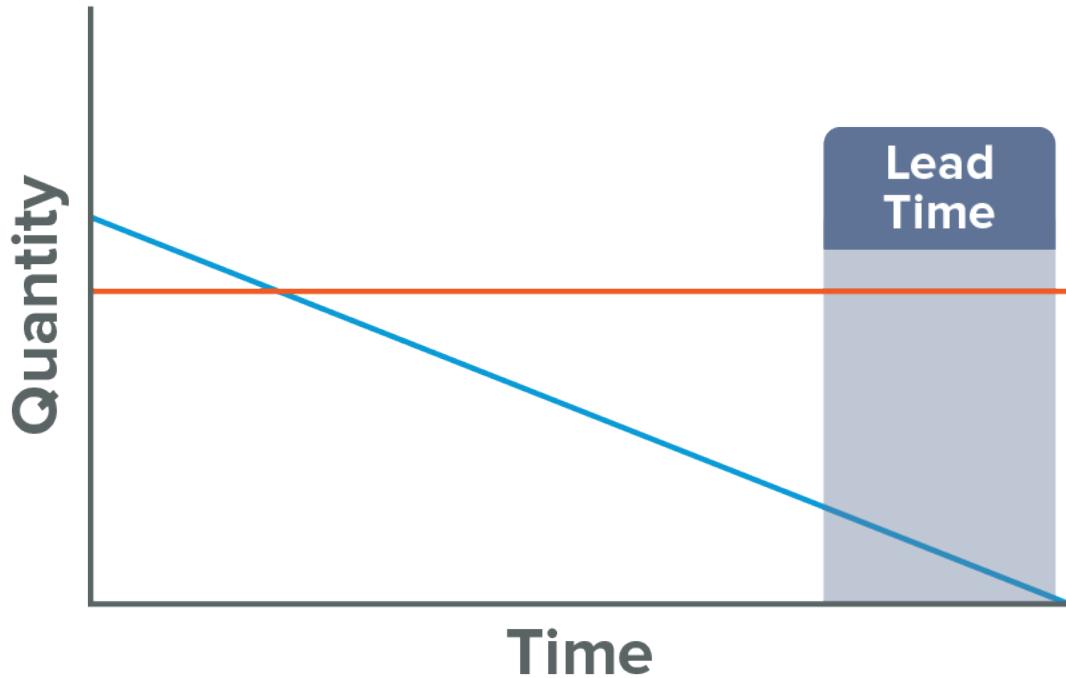
This diagram shows the expected inventory level with the safety stock and preferred stock level incorporated.



EXAMPLES

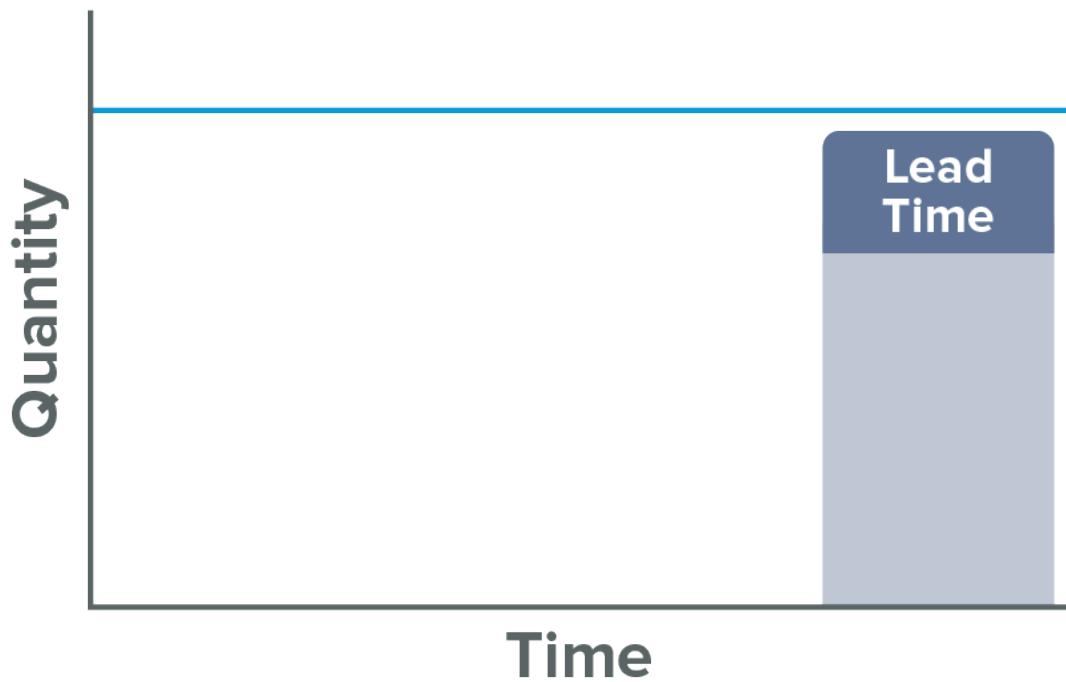
Example 1

- Item SK700-HP-A
- Lead time is 12 Days
- Reorder point is 1 because demand is low (one order in the past 3 months)
- Preferred Stock Level is set manually at 2.



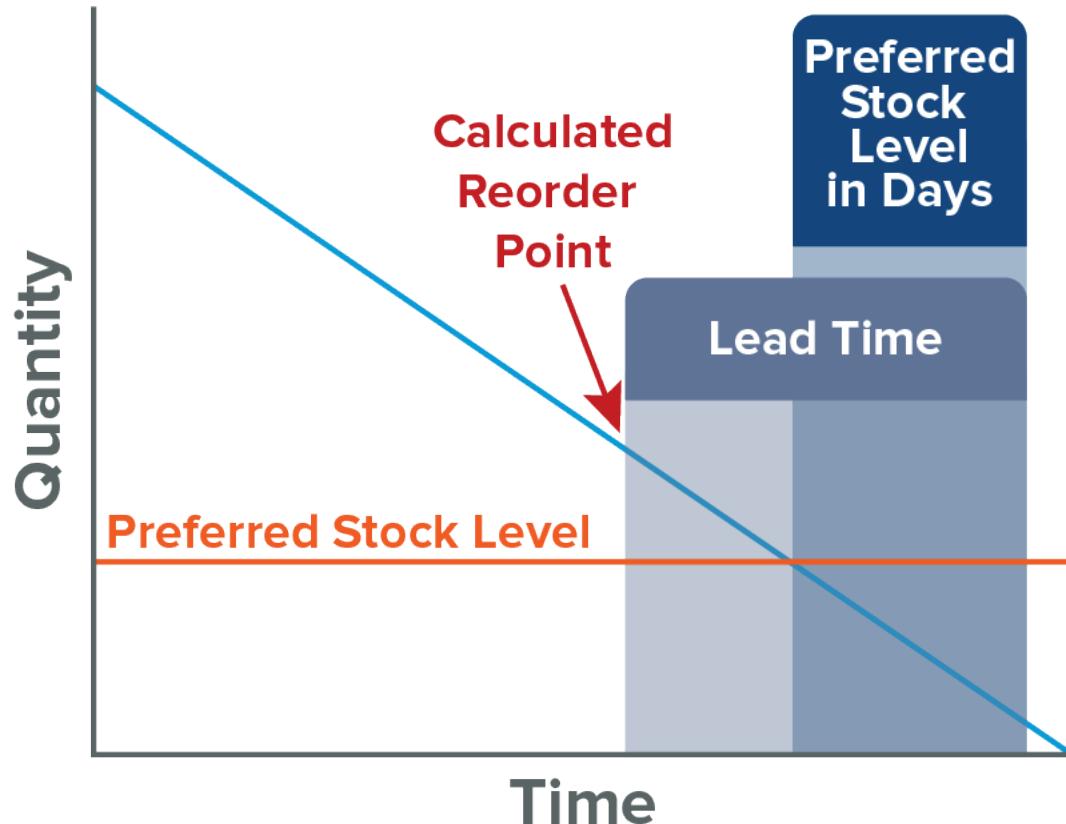
Example 2

- When demand is zero and the preferred stock level is autocalculated, the preferred stock level is zero.
- There is not enough historical demand to determine the demand per day. The slope is zero.



Example 3

- If the preferred stock level (in days) is less than the lead time, the preferred stock level = reorder point.
- In this case, the preferred stock level (in days) must be greater than the lead time for vendor.



Setting Up Advanced Inventory Management

On the Inventory Management Preferences page, set up the defaults and intervals that your account uses to make inventory management calculations.

Note: These preference settings apply to the Advanced Inventory Management and Demand Planning features.

To set up inventory management:

- Go to Setup > Accounting > Inventory Management Preferences.
- Complete the following fields:
 - Default Lead Time
 - Default Safety Stock
 - Default Preferred Stock Level
 - Order Analysis Interval

- Seasonal Analysis Interval
- Expected Demand Change
- Transactions to Consider
- Day of Week To Perform Calculation
- Demand Time Fence
- Planning Time Fence

3. Click **Save**.



Note: If you set auto-calculated inventory management for an item and then disable it, the settings return to the last manually entered value.

Inventory Management Preferences

- **Use Lead Time and Safety Stock per Location** - Option to set lead time and safety stock levels for an item at each location. Default value = 'F'.
- **Default Lead Time** – Enter the default number of days it takes to receive an item after placing an order. Default value = 14 days.

NetSuite uses this number of days lead time when auto-calculating the reorder point of an item. This is true if no lead time is specified in the item record.

If you track multiple vendors per item, NetSuite aggregates lead time calculations across all vendors per item, not per-vendor per-item.

- **Default Safety Stock** – The default number of days to keep an item on-hand based on the daily demand as a buffer to avoid stockouts. Default value = 7 days.
 - When you use Demand Planning, the safety stock amount for an item is considered when making demand plan calculations.
 - When you use Advanced Inventory Management, this amount is used to auto-calculate the reorder point of an item.

When the safety stock is entered in days, the safety stock level is calculated as:

(daily demand * safety stock level in days)

For example, daily demand for item #12345 is five per day. You want to keep on hand the Preferred Stock Level quantity plus 3 days worth of buffer stock. You would enter 3 in the Days field next to Safety Stock Level. Replenishment orders are calculated to keep a minimum of three days worth of stock on hand as a buffer. Three days * 5 items daily = 15 items. Then, on the Order Items page, you should order a quantity to keep a minimum of fifteen extra of item #12345 on hand.

This number of days safety stock is also used when auto-calculating the suggested reorder quantity of an item. This is true if no safety stock is specified in the item record.

- **Default Preferred Stock Level** – Enter the default preferred number of days to keep an item on-hand. This variable is a balance between being understocked and potentially delaying fulfillment and being overstocked and inefficient. Default value = 30 days.

The amount you enter determines the preferred stock level that defaults on new item records.

- When you use Demand Planning, the preferred stock level field is greyed out on item records that use the Time Phased replenishment method.
- When you use Advanced Inventory Management, the preferred stock level you set is used to calculate the quantity of items to be ordered. (Order Items page)

You must enter the default preferred stock level in days, not units. This is a measure of how many days worth of stock you want when the order is received. The preferred stock level is calculated as: (daily demand * preferred stock level in days)

For example, the daily demand for item #12345 is five per day. You prefer to keep seven days worth on hand in stock. Enter 7 in the Days field next to Default Preferred Stock Level. Replenishment orders are calculated to stock a minimum of seven days worth of an item. Five widgets daily * 7 days = 35 widgets. Then, on the Order Items page, you should order a quantity to keep a minimum of 35 widgets in stock.

This number of days supply is used when auto-calculating the preferred stock level of an item. This is true if no preferred stock level is specified in the item record.

- **Order Analysis Interval** – Enter the number of months of history to consider when calculating AIM values. Default value = 6 months.

When you use Demand Planning, the order analysis interval field is greyed out on item records that use the Time Phased replenishment method.

The order analysis interval is used when the seasonal demand for an item is not set.

For example, if you enter 6, the past 6 months of sales order history is evaluated.

Note: If auto-calculation is not functioning as expected, you may need to adjust your **Order Analysis Interval** setting.

For example, an inventory item was sold only one time since 2007, and the last sale was on 12/1/07. If the **Order Analysis Interval** setting is 30 days, it cannot be calculated. The **Order Analysis Interval** setting looks back only one month and does not see the old sale. You would need to modify the analysis interval to include the date of the last sales order to calculate properly.

The historical analysis considers only transactions created after the Multi-Location Inventory feature has been enabled. If the **Order Analysis Interval** setting includes transactions dated prior to using the Multi-Location Inventory feature, NetSuite cannot complete calculations.

- **Seasonal Analysis Interval** – Enter the number of months to consider as a season. This preference is applicable only when you use Seasonal Demand on an item, which is useful when you expect seasonal fluctuations in demand. Default value = 1 month.

When you use Demand Planning, the seasonal analysis interval is applicable only to items not set to use the Time Phased replenishment method.

- **Estimated Demand Change** – Enter the default percentage of expected change in demand. Default value = 0%.

For example, demand is projected at 100 units for this upcoming July based on sales last July. But you know that sales for this item have been trending upwards the last two months, and want calculations to mirror this trend. You can enter a percentage to bump up expected demand beyond the calculated amount. If you expect an increase in sales of this item, you can enter a 10% expected demand change added on to previous sales totals.

The amount you enter shows by default on new item records you enter.

- For items that use Advanced Inventory Management to calculate demand, the amount is used for calculating the suggested reorder quantity for items. This is true if no demand change percentage is specified in an item record.
- When you use Demand Planning, this setting is used only when the forecast method for a plan is set to Seasonal Average.

The expected demand change for the original item is used when a demand plan is created using an alternate source item.

■ **Transactions to Consider** – Determine which transactions are used to calculate inventory demand:

- Click **Orders** to include Sales Orders and Work Orders in AIM calculations. The following are not included: Planned Work Orders, Pending Approval Sales Orders, Cancelled Sales Orders, and Cancelled Work Orders. A 'Closed' status is included. Special Order Sales Orders and Work Orders are included, but Drop Ship Sales Orders are not because Drop Ship is not received into inventory.
- Click **Actual Sales** to use cash sales, invoices, and assembly builds to calculate demand for setting reorder points and preferred stock levels. Then, sales orders and work orders **are not used** to calculate demand. Only the cash sales and invoices that bill them and builds that create them are included in demand calculations. Assembly builds are also considered if the Assemblies feature is enabled.



Note: If you use the Cross-Subsidiary Fulfillment feature, for Sales Orders, NetSuite respects the line-level inventory location field, not the location field. This behavior is relevant only when this preference is set to **Orders**.

If this preference is set to **Actual Sales**, AIM considers Invoice, Cash Sale, Build, Work Order Issue, and Work Order Completion transactions. There are no transaction status restrictions in this case.



Important: With either option, if you use Work-In-Process (WIP), WIP and Scrap lines for Work Orders are excluded to avoid over-counting quantities on work orders.

Inventory demand calculations consider only transactions that decrease an item's stock level. For example, an assembly build increases the stock level for the assembly item and decreases the stock level for the assembly item's components. In this case, the demand plan calculation considers the assembly build only for the assembly item's components and not for the assembly item.

This preference setting applies to items that use Demand Planning, as well as items that use Advanced Inventory Management to calculate demand.



Note: If you use both sales orders and standalone cash sales/invoices, you should choose the **Actual Sales** option.

■ **Day of Week To Perform Calculation** – Select the day of the week you prefer to run inventory metrics calculations. You can change this selection later, if needed. Default values are Sunday at midnight.

This option sets the schedule in which AIM calculations are run on a weekly basis. You should set this preference to fit with off-peak business days. You can initiate a calculation at any time from the preferences page. Click Save, and then Submit & Calculate.



Note: This preference applies only to items that use Advanced Inventory Management to calculate demand.

To perform a one-time inventory metrics calculation, from **Save**, click **Submit and Calculate**. NetSuite performs the calculation the night you select it, and occurs in addition to the regular weekly calculation.

For example, you set Monday as the day of the week you want the auto-calculation to run. Choose the Orders for the Transactions to Consider to calculate demand. Then, set an Order Analysis Interval of 6 for the time frame of transactions included in the auto-calculation.

From these settings, NetSuite calculates an average unit sold per day for items that have been set for auto-calculation. This average unit sold per day number is multiplied by the days settings. This setting

is on the item record, or in inventory management preferences. (X days * Y average units sold per day = Z quantity required.)

Note: When you use the Multi-Location Inventory feature, item demand is calculated per location.

You can also set item records to auto-calculate at Setup > Mass Updates > Mass Updates.

- **Time of Day to Perform Calculation** – Select a time of day for inventory management calculations to run. Default values are Sunday at midnight.

This option sets the time in which AIM calculations run. You should set this preference to fit with off-peak business hours. You can initiate a calculation at any time from the preferences page. Click Save, and then Submit & Calculate.

- **Demand Time Fence** – Enter the days between zero and 365. This number is used as the default demand time fence and shows in the Demand Time Fence field on item records you create. You can change this default number, if necessary, when you create each item record. This field defaults to zero.
- **Planning Time Fence** – Enter the days between zero and 365. This number is used as the default demand time fence and shows in the Planning Time Fence field on item records you create. You can change this default number, if necessary, when you create each item record. This field defaults to zero.

Note: If the item record does not identify a planning time fence, NetSuite uses the default planning time fence value identified in inventory preference settings. For details on this preference, see [Setting Time Fence Preferences](#). If the Planning Time Fence field is blank on the item record and the Inventory Management Preferences page, no planning time fence is used.

Auto-calculation and Insufficient Data

In some cases, for items that use Advanced Inventory Management to calculate demand, auto-calculated inventory metrics may not be accurate. This is true if the sample of data does not match the analysis interval. For example, this could occur in the following cases:

- Your account is new and you have no sales history data entered.
- You have new item records that have no sales history data.
- You enabled Multi-Location inventory and have no sales history data per location.

In such cases, the auto-calculation uses the full interval only if there are sales for the item **before** the beginning of the interval. If there are no sales before the beginning of the interval, the auto-calculation is attempted using half the interval. If there is not enough data to make calculations using the half-interval, the reorder point and preferred stock level remain unchanged. Then, you can enter manual metrics, or the auto-calculations occur at a later date when there is enough sales data.

Lead Time and Safety Stock Per Location

You can choose to set a lead time and safety stock level for each location on an item record.

Setting a lead time and safety stock level helps you track your inventory more accurately by allowing the following:

- Account for lead times that vary between locations. For example, it takes the vendor 5 days to deliver to Location A, but 10 days to deliver to Location B.
- Turnover in Location A is low, so only 3 units are required for safety stock. Location B sells two times as many and the safety stock level is 6 units.



Note: To use this preference, enable Multi-Location Inventory and Advanced Inventory Management. It can also optionally be used with the Demand Planning feature.

The lead time is calculated based on receipt lines that show a location pulled from the purchase order.

If you use Advanced Inventory Management and auto-calculate lead times, the vendor lead time is calculated based on item receipts for each specific location. This lead time is calculated **for the receipt location**. It is based on the time elapsed between the date of the purchase order and the date of the item receipt.

For example, you enter the following:

- A purchase order dated 1/1 for item #1234 in Location A.
- A receipt dated 2/1 to receive the purchase order in Location B.

The lead time for Location B is calculated as 31 days. The lead time for Location A is not calculated from these transactions.

To use the new preference, go to Setup > Accounting > Inventory Management Preferences. Check the Lead Time Per Location box and then click Save.



Note: This preference is unavailable if you use the preference to Centralize Purchasing in a Single Location.

The the Lead Time Per Location preference reorders items based on the lead time, safety stock, and the reorder point set for each location. Then, NetSuite functions as follows:

- NetSuite autocalculates item reorder point and time phased replenishment for each location.
- NetSuite determines the lead time by location by referencing the three most recent purchase orders and receipt sets for purchase orders for a location.



Important: To use the Lead Time Per Location preference, you must specify a location for each line item of a purchase order you enter. If a purchase order line does not identify a location, the lead time is not populated.

For example, transactions with the following data are entered:

PO	Location	PO Date	Receipt	Location	Receipt Date
1	Location A	4/1/2011	111	Location A	5/1/2011
2	<blank>	5/1/2011	121	Location A	6/25/2011
3	Location A	6/1/2011	131	Location A	7/23/2011

Note that items received on receipt #121 are not used in lead time calculations for Location A because purchase order #2 has no location.

Purchase Orders

The Lead Time per Location preference functions differently with the Multi-Location Inventory and Demand Planning features. New purchase orders automatically populate the lead time based on the location lead time **only when location is identified on each line item**. The expected receipt date is calculated based on the lead time of the location on the purchase order.

Purchase orders with no location for a line item settle lead time for the location specified in the purchase order header. When a location is selected for both the transaction header and each line item, the location on the item line is used for calculations.

Work Orders

The Lead Time per Location preference functions differently with the Multi-Location Inventory and Demand Planning features. The start time and end time of new work orders you enter respect the lead time of the location specified on the work order.

The production start or production end date is calculated based on the work order lead time of the location specified on the work order.

Demand Planning

If you use Demand Planning with Lead Time per Location, you can enter a work order lead time per location. Then, on the Generate Supply Plan page, the lead time is based on the lead time of the location that requires the goods.

When the Lead Time per Location is enabled, the following occurs:

- A supply source purchase uses the location lead time.
- A supply source work order uses the location work order lead time.
- The location Safety Stock Level (Quantity) is used.

Safety Stock Level (Days) is not supported for the Demand Planning feature.

Time-Phased Replenishment Items

If an item's replenishment method is time-phased, you can enter a work order lead time per location for an assembly item. However, you cannot enter a work order lead time per location for an assembly item with the reorder point replenishment method.

For example, a planned order of Deluxe Widgets is requested and these widgets use time-phased replenishment. The requirement date is 5/18. The order date is determined based on the lead time setting per location.

Check Item Availability and Gross Requirement Inquiry

The Lead Time per Location preference functions differently with the Multi-Location Inventory and Demand Planning features. NetSuite uses the setting in the Safety Stock field for the location to calculate lead times. This is true for both the Gross Requirements Inquiry and Check Item Availability data.

Demand Planning

You can use NetSuite Demand Planning to analyze your stock demand needs. This feature also lets you determine your replenishment requirements, and then create orders according to a supply plan that will add stock as needed. This information can be crucial for items with demand that fluctuates throughout the year.

You can pinpoint when to reorder items, and in what quantities, helping you maintain optimal stock levels. Demand planning helps you to have the right amount of stock on hand to fill orders without having overstock sitting idle on warehouse shelves.

Demand Planning uses demand plan and supply plan records to track anticipated supply and demand.



Note: When you use the Demand Planning feature, you can also use the Available to Promise feature to calculate availability. See [Available to Promise](#).



[Demand Planning – A Day in the Life](#)

Demand Plans

A demand plan records the expected future demand for an item based on previous or projected demand.

A demand plan can be created automatically using the Calculate Demand Plan page. This page initiates the process to assess previous demand for items and calculate the estimated upcoming demand.

You can forecast demand for items using one of the following methods:

- Determine a time frame for examining an item's historical sales data to analyze previous sales trends and forecast future sales with similar trends.
- Use current demand such as opportunities, quotes, and existing sales orders to forecast future sales. This method is not based on a calculated forecast.

NetSuite uses this forecast data to project estimated demand across a designated time period in the future and suggests a plan for orders accordingly.

Supply Plans

Supply plans record the suggested schedule for purchasing or manufacturing additional supply of an item. The supply plan lists suggested purchase orders and work orders to augment item supply, based on lead times and expected demand.

Safety stock level settings are considered in supply calculations. Also, the supply plan incorporates lead times so you place orders in time to receive the items when the demand is increased. Purchase orders generated from supply plans use the preferred vendor from the item record.

For assembly item supply plans, all levels of a multi-tier assembly are considered. NetSuite plans work orders for all sub-components of the build, as well as purchasing of required raw materials.

A supply plan can be generated from a demand plan using the Calculate Supply Plan page.

Using demand plans and supply plans helps you maintain an optimal level of inventory for items that have fluctuating demand.

For example, you sell a Deluxe Seasonal Widget that has a 15-day lead time and demand for the widget varies from month to month. To ensure you order and stock the right amounts of the widget, you can use demand planning to do the following:

- Create a demand plan to analyze your historical sales data for the widget to project demand for the widget into the future. The demand plan will show demand across future periods, including high demand in April and August and low demand in October and May.
- From the demand plan, create a supply plan. The supply plan shows when to create purchase orders to replenish the widget based on the expected demand data.



Note: You can process a maximum of 10,000 items at one time for Demand Planning functions.

The general workflow for demand planning is as follows:

1. Set up the feature.

This includes enabling the feature, setting preferences, and setting up item records.

For more details, see [Setting Up Demand Planning](#).

After you enable the feature, the Demand Planning links show on the Transactions subtab.

2. Calculate demand for items.

To calculate demand, at a minimum, you must identify a projection method, period type, historical period, and projection period. If you use Multiple-Location Inventory, you must also identify a location.

Projection methods you can use include Linear Regression, Moving Average, Seasonal Average, and Sales Forecast.

See [Calculating Item Demand](#) or [Manually Entering an Item Demand Plan](#).

3. Review the demand plan.

Review the projected demand as calculated and make any necessary changes.

See [Viewing, Editing, and Deleting a Demand Plan](#).

4. Generate supply plans for items.

This includes identifying a start date and end date to generate plans. If you use Multiple-Location Inventory, you must also identify a location.

A supply plan can be generated from a demand plan using the Calculate Supply Plan page. For more information, see [Creating Item Supply Plans](#) or [Manually Entering an Item Supply Plan](#).

5. Review supply plans.

Review the orders suggested for item replenishment and make any necessary changes.

See [Viewing, Editing, and Deleting a Supply Plan](#).

6. Order items.

The orders suggested by supply plans must be generated using the Order Items page or the Mass Create Work Orders page.

For more information, see [Creating Orders from Supply Plans](#) and [Mass Creating Work Orders](#).

To monitor your demand plans, supply plans, purchase orders, and work orders, you can use NetSuite reporting. For more information, see [Reporting on Demand Planning](#).

Setting Up Demand Planning

To use demand planning to create demand plans and supply plans for items, complete the following steps:

1. Enable features for demand planning. (Procedure follows.)
2. [Set Inventory Preferences](#)
3. Set up [Demand Planning on Item Records](#).

To enable features for demand planning:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the **Demand Planning** box.

 **Note:** Advanced Inventory Management must be enabled.

3. To use the demand planning feature for assembly items, the Work Order feature must be enabled. Check the **Work Orders** box.
4. Click **Save**.

Set Inventory Preferences

There are preferences you can set that affect how Demand Planning functions:

■ Transactions to Consider

On the Inventory Management Preferences page, choose a setting for the Transactions to Consider preference. This preference setting affects demand planning calculations by determining the transactions that are included in demand calculations.

- Choose the Orders setting to use approved, non-canceled sales orders to calculate demand. Work Orders are also considered if the feature is enabled.
- Choose the Actual Sales setting to use cash sales and invoices to calculate demand. Then, sales orders are not used to calculate demand. Only the cash sales and invoices that bill them are included in demand calculations. Assembly builds are also considered if the Assemblies feature is enabled.

Inventory demand calculations consider only transactions that decrease an item's stock level. For example, an assembly build increases the stock level for the assembly item and decreases the stock level for the assembly item's components. In this case, the demand plan calculation considers the assembly build only for the assembly item's components and not for the assembly item.

 **Note:** If you use both sales orders and standalone cash sales/invoices, choose the Actual Sales option.

To set this preference, go to Setup > Accounting > Inventory Management Preferences.

For detailed steps on setting this preference, see [Setting Up Advanced Inventory Management](#).

■ Allow Purchase of Assembly Items

Use this preference to permit NetSuite to create purchase orders instead of work orders when making supply recommendations for assemblies. You can also define purchase pricing on assembly item records.

This preference also enables you to add assembly items to purchase orders, vendor bills, checks, credit card transactions, and vendor credits.

To set inventory preferences, go to Setup > Accounting > Accounting Preferences.

■ Click the Order Management subtab.

■ Demand Planning and Allocation

If you use the Demand Planning feature, you might also consider using automated allocation. For more information, see [Demand Planning and Inventory Allocation](#).

■ Demand Planning and Routing

If you also use the Manufacturing Routing and Work Center feature, see the help topic [Setting Routing Preferences](#).

Demand Planning on Item Records

To use Demand Planning for an item, set the replenishment method to Time Phased on the item record. Only items with a Time Phased replenishment method can be used with demand plans and supply plans.

To use Demand Planning for assembly items, enable the Work Orders feature. For more information, see [Setting Up Demand Planning](#).

Before you set up an item for demand planning, you must specify the replenishment method.

Specifying the Replenishment Method on Item Records

Use the following procedure to set the replenishment method to Time Phased on item records.

To specify the replenishment method on item records:

- To create orders based on item demand plans not Advanced Inventory Management settings, in the Inventory Management section, **Replenishment Method** field, select **Time Phased**. For more information, on this section, see the help topic [Entering Inventory Management Details](#).

The following record fields used by Advanced Inventory Management to calculate demand are no longer available:

- Seasonal Demand
- Build Point
- Reorder Point
- Preferred Stock Level
- Safety Stock Days

The Autocalculate settings are cleared and cannot be changed for Demand Per Day, Build Point, Reorder Point, and Preferred Stock Level.

- In the **Alternate Source Item** field, select the item with historical sales to review other than the item on the record.

Leave this field empty to use the source item for historical data.

For example, you set up Item A for demand planning, but Item A does not have an extensive sales history. You can choose Item B as an alternate source for historical data. When demand calculations are made for Item A, NetSuite uses Item B's history for the calculations.



Note: You can select only an item that is of the same item type to be an alternate source. For example, if the original item is an inventory item, the alternate source item must also be an inventory item.

The expected demand change for the original item is used when a demand plan is created using an alternate source item.

Setting up an Item Record for Demand Planning

Use the following procedure to set up an item record for demand planning.

To set up an item record for demand planning:

- Go to Lists > Accounting > Items.
- Beside the item record you want to set up, click **Edit**.
- Click the **Purchasing/Inventory** subtab.
- In the **Lead Time** field, enter the average number of days between ordering this item from the vendor and receiving it. For example, if the item usually takes ten days to arrive from the vendor, enter **10** in this field.

Including an accurate lead time for an item is important for creating more accurate supply plans and item orders.

If no value is entered, then the default value from the Set Up Inventory Management page is used.

- Optionally, enter a **Safety Stock** quantity. This is a buffer amount of stock you want to keep on hand to account for variations in demand.

For example, if you enter **5**, after demand projections are made, an additional 5 units are added to the quantity required on supply plans.

If you use Multiple Units of Measure, safety stock is always planned in stock units.

- In the **Expected Demand Change** field, enter a percentage to augment the forecasted amount.

For example, demand is projected at 100 units for this upcoming July based on sales last July. But you know that sales for this item have been trending upwards the last two months, and you want calculations to mirror this trend. You can enter a percentage to increase the expected demand beyond the calculated amount.

This setting is used only when the forecast method for a plan is set to **Seasonal Average**.

7. In the **Distribution Network** field, choose the appropriate network. The network you select determines the distribution categories available for you to choose. If the distribution network field is blank, then distribution category must also be blank.



Note: The network and category you select must be associated with the subsidiary selected for the item in the Classifications section of the item record. For details about how networks are associated with subsidiaries, see [Creating a Distribution Network](#).

This field is available only when the Distribution Resource Planning feature is enabled.

8. In the **Distribution Category** field, choose the appropriate category. After a distribution category is defined on the item record, NetSuite incorporates network transfers into demand planning for the item.



Note: The network and category you select must be associated with the subsidiary selected for the item in the Classifications section of the item record. For details about how categories are associated with subsidiaries, see [Creating a Distribution Category](#).

This field is available only when the Distribution Resource Planning feature is enabled.

9. Choose one of the following options in the **Lot Sizing Method** field:

- **Lot For Lot** – This selection means orders are suggested for procurement based on the exact projections for that day. The suggested order quantity may vary from day to day depending on demand calculations.
- **Fixed Lot Size** – This selection means orders are suggested for procurement based on a fixed amount or a multiple of the fixed amount.
- **Periods of Supply** – This option generates aggregated purchase orders or work orders based on the overall demand requirements extended over a designated period. For example, weekly.

For example, in lieu of creating multiple purchase orders for each instance of demand, you can consolidate demand into one order. This order is created by the demand planning process for all items required within the next two weeks. By sending a consolidated purchase order to a vendor, the vendor can ship all items at one time, potentially resulting in reduced shipping costs.



Important: Be aware of costs from vendor holding charges. You can consolidate orders for a period. However, after being consolidated, the Bill of Materials (BOM) for that specific work order on that specific level is used for subsequent levels.

If you use Multi-Location inventory, this field is on the **Locations** subtab.

Complete the following steps based on the Lot Sizing Method you have selected.

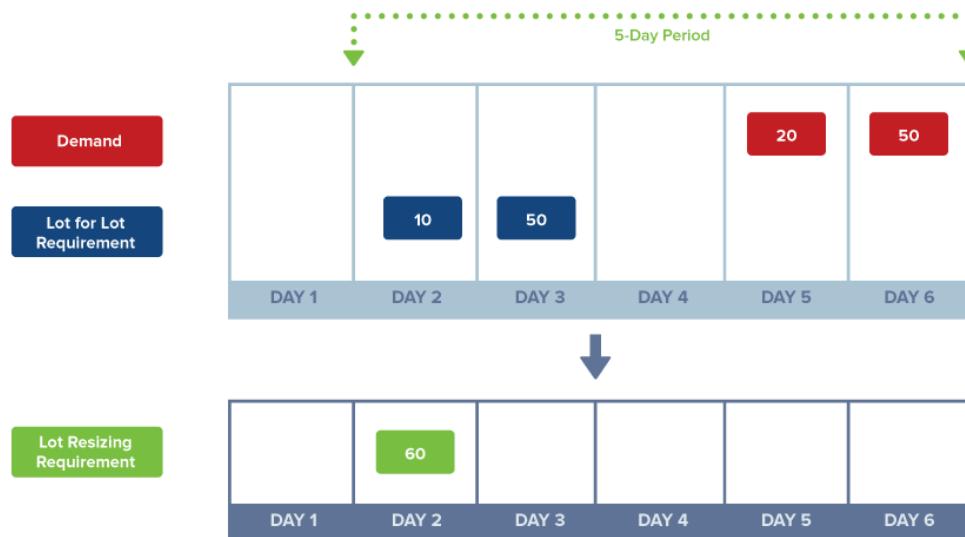
- a. If you selected **Fixed Lot Size** as the lot sizing method, enter a quantity in the **Fixed Lot Size** field. This is the quantity that procurement of this item is always based on, regardless of demand projections.
- b. If you selected **Periods of Supply** as the lot sizing method, make a selection in the **Periods of Supply Type** field:
 - **Interval** – (Default) Order aggregation starts when a requirement is established and continues for a fixed period defined in the Interval field.

- **Monthly** – Order aggregation starts at the beginning of each month. The requirement date is always the first day of each month.
- **Weekly** – Order aggregation starts at the beginning of each week. The requirement date is always the first day of the week as defined under Company Settings.
- c. In the **Period of Supply Increment** field, enter a number from 1 to 90. The default setting is 1.

The increment starts on the first day an order is required. From the first day, NetSuite aggregates all orders in the increment. Orders are placed on the first day of the period.

The **Period of Supply Increment** field is enabled only when you select **Interval** in the **Periodic Lot Size Type** field.

For an Interval setting, NetSuite calculates orders as shown in this diagram.



- Lead Time is 2 Days
- Interval period is 3 days
- Day 5 demand is 20
- Day 6 demand is 50
- Day 2 on hand quantity is 10
- Day 3 on hand quantity is 50

Orders are grouped based on a 5 day period. Therefore, on day 2 when NetSuite looks ahead 5 days, the total demand is 70. On day 2, the on hand quantity is 10. NetSuite calculates that 60 are required as of day 2. The work order uses this requirement of 60 to determine the subsequent levels of work.

10. The **Supply Type** field shows the method by which more stock is procured, either **Purchase** or **Assembly**. On assembly items, if you have enabled the **Allow Purchase of Assembly Items** preference, you can choose whether to build additional supply or purchase it.

For details about using this preference, see [Setting Up Demand Planning](#).

11. The **Demand Source** field determines where demand data is sourced for an item.
 - **Forecast from Demand Plan** – Source only the item's demand plan record.



Note: When you choose this setting, a sales order with a related work order generates a supply plan for the sales order. In addition, the Mass Create Work Orders page suggests a supply for the sales order.

- **Entered and Planned Orders** – Source open orders and use the expected ship date as the demand date. If the item is a member of an assembly, demand for the assembly is included in demand calculations for the item.
- **Order and Forecast** – Calculates demand for an item by including both the forecast amount and the amount on orders that have been entered.

Forecast demand for an item is calculated by combining the following:

(Quantity forecast over time) + (quantity on sales orders and invoices entered)

For example, Item #AB1001 is forecast to sell 100 units in January. Sales orders are already entered for 20 units. Using this method, demand is calculated as 120 units.

The total forecast includes the forecast demand and the demand order quantities from transfer orders, work orders, and sales orders.

- **Forecast Consumption** – Calculates demand for an item by subtracting from the forecast quantity any item quantities on orders entered. This removes duplication if an order is already included as part of a forecast.

Demand for an item is calculated as follows:

(Quantity forecast over time) - (quantity on sales orders and invoices entered)

For example, Item #AB1001 is forecast to sell 100 units in January. Sales orders are already entered for 20 units. Using this method, demand is calculated as 80 units.

As shown in another example below, orders are forecasted for 20 units each on days 1, 5, and 9. Actual orders are entered for 5 units each on days 2, 7, 8, and 10.



For planning purposes, indicate that the order for 5 units on day 2 is part of the forecasted 20 units for day 1. You would account for this by decreasing the day 1 forecast quantity to 15 units.



The bottom row shows the adjusted aggregate totals.

When you use the **Forecast Consumption** demand source method, set the following on the **Location** subtab of the item record:

- Forward Consumption** – Number of days **after** the order date to consider
- Backward Consumption** – Number of days **prior** to the order date to consider

Backward and forward consumption days determine the time period considered for each sales order when a forecast amount is consumed to calculate demand. If an order falls within the consumption time period, that order quantity is calculated as being consumed. Then, the forecast is adjusted to account for the order consumption.



Note: NetSuite always considers backward consumption first.

- The forecast closest to the order in the backward time period is consumed first.
- The forecast closest to the order in the forward time period is considered if there are remaining quantities to be consumed.



Note: Only sales order and invoice quantities can consume forecast quantities. Demand from transfer orders and work orders does not consume forecast quantities.

For additional details, see [Forecast Consumption Examples](#).

12. **Demand Time Fence** – This field defaults to the number entered in the **Default Demand Time Fence** field. Verify the default or enter a number between zero and 365 to determine the demand time fence for this item.
13. **Planning Time Fence** – This field defaults to the number entered in the **Default Planning Time Fence** field. Verify the default or enter a number between zero and 365 to determine the planning time fence for this item.
14. **Reschedule In Days** – Enter a number between one and 90. This is the maximum number of days that the order can be advanced from the current day. For example, if you enter 10, an order for this item can be moved up ten days, but not eleven or more days. This field defaults to be blank.



Note: If this field is left blank, NetSuite does not make recommendations to reschedule orders for this item to a later date.

15. **Reschedule Out Days** – Enter a number between one and 180. This is the maximum number of days that the order can be delayed from the current day. For example, if you enter 10, an order for this item can be moved to ten days later, but not eleven or more days. This field defaults to be blank.



Note: If this field is left blank, NetSuite does not make recommendations to reschedule orders for this item to a later date.

16. Click **Save**.

Now, this item can be used on demand plans and supply plans.

Mass Update and CSV Import With Demand Planning

You can also use the Mass Update function to update item records for demand planning. Go to Lists > Mass Update > Mass Updates and click General. Under Items, click the type of item to update.

For example, on the Mass Update Fields subtab, you can update the selection in the Replenishment Method field on item records.

For more information about mass updates, see the help topic [Mass Changes or Updates](#).

When updating inventory or assembly items using Mass Update, the mass update cannot be performed unless certain auto-calculate settings are disabled. For inventory items that use the Time Phased replenishment method, clear the Auto-Calculate box next to the Reorder Point and Preferred Stock Level fields.

For assembly items that use the Time Phased replenishment method, clear the Auto-Calculate boxes next to Lead Time, Reorder Point, and Preferred Stock Level.

Account administrators and other users with Import CSV File permission can use the Import Assistant to import demand plans. For more information, see the help topic [Importing Demand Planning Data for Items](#). For general information about using CSV import for items, see the help topic [Items Import](#).

Forecast Consumption Examples

The following video describes Supply Chain Management concepts and terminology:



[Forecast Consumption](#)



[Forecast Consumption](#)

The following examples explain using the Forecast Consumption demand source method. For more details about this method, see [Demand Planning on Item Records](#).

- [Forecast Consumption Example 1 \(Order Falls within Consumption Window\)](#)
- [Forecast Consumption Example 2 \(Order Consumes Forecast Amount\)](#)
- [Forecast Consumption Example 3 \(Order Consumes Multiple Forecast Amounts\)](#)

Forecast Consumption Example 1 (Order Falls within Consumption Window)

- Forward consumption is 1 day.
- Backward consumption is 2 days.
- Orders are forecast for 20 units on days 1 and 5.
- An order for 10 units is entered on day 3.

Because the order for 10 units on day 3 falls within the consumption window, 10 units are considered to be consumed. The forecast amount for day 1 is adjusted to be 10 units (20 units originally forecast less 10 units consumed = 10 units).

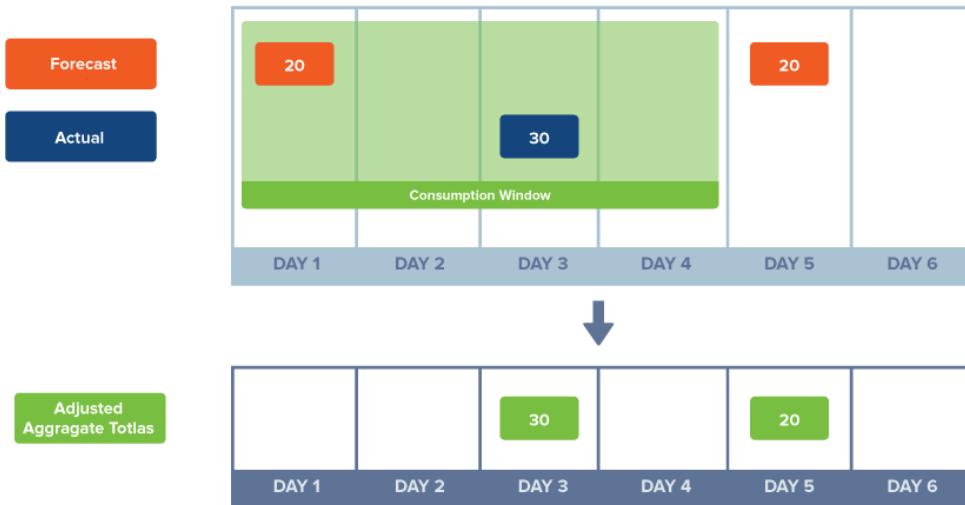


Forecast Consumption Example 2 (Order Consumes Forecast Amount)

- Forward consumption is 1 day.
- Backward consumption is 2 days.
- Orders are forecast for 20 units on days 1 and 5.
- An order for 30 units is entered on day 3.

Because the order for 30 units on day 3 falls within the consumption window, some units are considered to be consumed.

- Backward consumption is 2 days, so the 20 units on day 1 do fall within the window. The forecast amount for day 1 is fully consumed and is adjusted to be zero units.
(20 units originally forecast less 20 units consumed = 0 units)
- Forward consumption is one day, so the 20 units on day 5 **do not** fall within the window, and therefore none are consumed. The forecast for day 5 remains at 20 units.



Forecast Consumption Example 3 (Order Consumes Multiple Forecast Amounts)

- Forward consumption is 3 days.
- Backward consumption is 2 days.
- Orders are forecast for 20 units on days 1 and 5.
- An order for 30 units is entered on day 3.

Because the order for 30 units on day 3 falls within the consumption window, some units are considered to be consumed.

- Backward consumption is two days, so the 20 units on day 1 do fall within the window. The forecast amount for day 1 is fully consumed and is adjusted to be zero units.
(20 units originally forecast less 20 units consumed = 0 units)
- Forward consumption is three days, so the 20 units on day 5 do fall within the window. The forecast amount for day 5 is partially consumed and is adjusted to be 10 units.
(20 units originally forecast less 10 units consumed = 10 units).



Calculating Item Demand

You can calculate item demand to forecast the expected demand across a future period. NetSuite does not currently consider past forecast quantities. The Calculate Item Demand Plan page initiates the process to assess previous demand for items and calculate the estimated upcoming demand.

For example, you can look at an item's demand across the previous six months to forecast the expected demand for the next six months.

To calculate demand, choose a projection method, and then determine what data to use for analysis. Then determine the length of the period to forecast for.

NetSuite uses this forecast data to project estimated demand across a designated time period in the future. Then NetSuite suggests a plan for orders accordingly.

After you submit the Calculate Item Demand Plan page, a demand plan is created for each selected item. Demand plans record the expected future demand for an item based on previous demand.

After demand plans are created, you can view and edit the demand plans and use them to create supply plans for items.



Important: NetSuite supports kits in Demand Planning calculations for the components. However, Demand Planning does not calculate demand for the kit itself. Demand Planning calculates demand for the kit components, and if the kit components are sold individually, that demand is also calculated.

ERP: Calculating item Demand

To calculate item demand:

1. Go to Transactions > Demand Planning > Calculate Item Demand Plan.
2. If you use NetSuite OneWorld, select a **Subsidiary**.
3. If you use the Multi-Location Inventory feature, select a **Location**.

The list of items that appear is filtered to show only items for the selected location that are time-phased replenishment items.

4. You can forecast demand for items in one of two ways:

- Determine a time frame for examining an item's historical sales data to analyze previous sales trends and forecast future sales with similar trends.
- Use current demand such as opportunities, quotes and existing sales orders to forecast future sales. This method is not based on a calculated forecast.

Select a **Projection Method**:

- **Linear Regression** – Uses previous demand to project future inventory based on the ordinary-least-square regression method.
- **Moving Average** – Uses the moving average of historical demand to calculate the overall average stock level needed. Then project future stock levels using that overall average.

Based on the historical duration parameter, NetSuite calculates the moving average demand in the past. The moving average is intended as a smoothing function to minimize demand variations. This average is used for all periods in the projection.

For example:

- Today is 2/1/2011.
- Historical duration is set to 3 months.
- Projected duration is set to 2 months.

The following results:

	10/1/2010	11/1/2010	12/1/2010	1/1/2011	2/1/2011	3/1/2011
Historical Demand Data	5	4	5	6		
Projected Demand Data				5	5	

- **Seasonal Average** – Use previous demand to examine the seasonal trend of inventory flow, and then project a similar seasonal trend for future stock levels.



Note: Using this method, the projection interval must be set to Monthly intervals.

- **Sales Forecast** – When using NetSuite for your sales operations, this option uses forward looking sales forecast data to project inventory demand.

When you use the Sales Forecast method, transaction types sourced for projection calculations are the following:

- cash sale
- invoice
- estimate
- opportunity
- sales order
- item fulfillment

The following table shows the date and quantity considerations.

Transaction Type	Date	Quantity
Estimate	Expected Ship Date	Estimate Quantity

Transaction Type	Date	Quantity
□ Estimates without any associated sales orders, invoices, or cash sales	Note: Data is not referenced when an expected ship date is not populated.	
Opportunity	Expected Ship Date Note: Data is not referenced when an expected ship date is not populated.	Opportunity Quantity
Sales Order	Expected Ship Date Note: If an expected ship date is not listed, then the Transaction Date is used.	Quantity remaining that is not yet shipped
Item Fulfillment	Transaction Date	Quantity Shipped
□ Only for fulfillments associated with a sales order		
Cash Sale	Transaction Date	Cash Sale Quantity
□ Standalone cash sales □ Cash sales created from estimates □ Cash sales created from sales orders when Advanced Shipping is disabled		
Invoice	Transaction Date	Invoice Quantity
□ Standalone invoice or invoice from estimate □ Invoice created from estimate □ Invoice created from sales order when advanced shipping is off		

5. In the **Projection Interval** field, make a selection to determine the period of time demand is calculated for. For example, select Weekly to project how much demand is expected per week, as opposed to per month.

If you are using the Seasonal Average method, only a Monthly interval is supported.

The first date of the period for which you want to forecast demand displays in the **Projection Start Date** field.

6. In the **Projection Duration** field, define the number of periods to calculate projected future demand. For example, enter **6** to calculate demand over a six month period.



Note: This number cannot be a decimal value. For example, if you enter 3 in this field and selected an interval of Months, then demand is forecast for a three month interval.

7. Historical Analysis Duration – Define the number of periods in the past to calculate demand projection
- For Moving Average, enter the number of periods in the past to calculate the next moving average value.
 - For Linear Regression, enter the number of periods in the past to determine the linear regression projection.
 - This field is not required when using the Sales Pipeline projection method.
 - For Seasonal Average, enter the number of periods in the past to calculate the future demand.
8. Select all items you want to calculate demand for.

9. The **Alternate Source Item** field enables you to choose a different item to use that item's historical data to calculate demand.

For example, you are setting up Item A for demand planning but Item A does not have an extensive sales history. You can choose Item B as an alternate source for historical data. Then, when demand calculations need to be made for Item A, NetSuite uses Item B's history for the calculations.

You can select only an item that is of the same item type to be an alternate source. For example, if the original item is an inventory item, the alternate source item must also be an inventory item.



Note: The expected demand change for the original item is used when a demand plan is created using an alternate source item.

10. Click **Submit**.

After you submit the page, demand plans are created for all selected items. To view the plans, go to Transactions > Demand Planning > Item Demand Plans..

When calculating demand, NetSuite includes transactions dated before the start date for items that have a demand source setting of Entered and Planned Orders. These transactions are considered as existing demand orders on the start date of the planning calculation:

- A sales order that is not closed
- A sales order that is not fully shipped
- A sales order that has a date that is before the start date

Sales orders and purchase orders dated before the start date are expected to be received or shipped the day when the supply calculation occurs.

If an item has no transaction history, you can use an alternate item's history, enter your own forecast, or import the sales order history.

Assemblies and Demand Calculations

If an assembly's components are set to calculate the demand source from Entered and Planned Orders, you do not need to create demand plan. If you select the assembly to calculate supply, the necessary orders are created when that calculation occurs for the assembly and its components.

CSV Import

Account administrators and other users with Import CSV File permission can use the Import Assistant to import demand plans. For more information, see the help topic [Importing Demand Planning Data for Items](#). For general information about using CSV import for items, see the help topic [Items Import](#).

SOAP Web Services

SOAP web services programs can be used to add, update, delete, search, and retrieve data for demand plans. See the help topic [Item Demand Plan](#) in the SOAP web services section of the Help.

Monitoring the Demand Plan Status

After you submit the demand plan generation page, some plans may take time to generate. You can check the status of plan generation to monitor progress.

To monitor demand plan creation status:

1. Go to Transactions > Demand Planning > Calculate Item Demand Plan > Status.
2. The Calculate Item Demand Plan Status page shows a list of page submissions. For each line, the following shows:
 - **Date and time created**
 - **Percent complete**
 - **Status**
3. You can filter the list of plans by entering a date range in the **From** and **To** fields.
4. After all demand plan calculations complete, the status for the line displays **Complete**.

Viewing, Editing, and Deleting a Demand Plan

After a demand plan is originally created, you can open the plan to view or edit the plan details. For example, you may want to edit some of the calculated projection totals, or delete a plan.

To view or edit an existing item demand plan:

1. Go to Transactions > Demand Planning > Item Demand Plans.
2. Do one of the following:
 - Click **View** next to a plan to see the plan.
 - Click **Edit** next to a plan to make changes to the plan.



Note: The only header fields that can be edited on the plan are the **Custom Form**, **Unit of Measure**, and **Memo**.

These fields are for viewing only: **Location**, **Item**, **Projection Method**, **Projection Interval**, **Projection Start Date**, **Projection Duration**, and **Historical Analysis Duration**.

3. You can alter your view of the demand plan by changing the date range or the plan view, as described below:
 1. **Year** – Enter the year to view.
 2. **Month** – Select a month to view.
 3. **Start Date** – Enter the first date of the period you want to view.
 4. **End Date** – Enter the last date of the period you want to view.
 5. **View** – Choose to see the demand results in a Daily, Weekly or Monthly format.
4. The **Calculated** column shows the projected demand amount.
 - When you are viewing a plan, the calculated quantity is for reference only.
 - When you are editing a plan, the calculated quantity displays and a new number can be entered in the **Quantity** field. This new number changes the demand quantity for each line. Enter an amount to revise the demand plan for that interval.
5. **Last Plan Modified** – This field displays the date of the most recent changes to the plan.
6. **Last Projection Method** – This field displays the most recent projection method used.
7. To save any changes entered on this plan, click **Save**.

To delete a plan:

1. In the **Demand Plan** list, beside the plan you want to delete, click **Edit**.
2. On the Demand Plan page under **Actions**, click **Delete**.

Manually Entering an Item Demand Plan

You can manually enter a demand plan instead of having NetSuite calculate a plan for you. This can be useful if you use calculations derived outside of NetSuite and want to enter a plan based on those external calculations.

To enter a manual item demand plan:

1. Go to Transactions > Demand Planning > Item Demand Plans > New.
2. In the **Custom Form** field, choose a form for this plan.
3. If you use NetSuite OneWorld, select a subsidiary.
4. If you use the Multi-Location Inventory feature, select a location.
The items list shows only items for the selected location that are time-phased replenishment items and have no existing demand plan.
5. Select the item you are entering a demand plan for.
6. Select a **Unit of Measure** to create a demand plan based on the unit.
7. Optionally enter a memo for this plan. Later, you can search for this plan by the text entered here.
8. You can alter your view of the demand plan by changing the date range or the plan view, as described below:
 1. **Year** – Enter the year to view.
 2. **Month** – Select a month to view
 3. **Start Date** – Enter the first date of the period you want to view.
 4. **End Date** – Enter the last date of the period you want to view.
 5. **View** – Choose to see the demand results in a Daily, Weekly or Monthly format.
9. For each interval, enter an amount in the **Quantity** field to set the demand quantity.
10. Click **Save**.

After the demand plan is entered, you can use the plan to generate supply plans.

Creating Item Supply Plans

After you create demand plans, you can create individual supply plans for specified items. The supply plan details orders to be placed for items based on the beginning inventory level, safety stock level, lead time, and projected demand.

When you generate supply plans from your demand plans, NetSuite creates future work orders or purchase orders that replenish items in appropriate quantities.

For more information about which orders are included in demand plan calculations, see [Calculating Item Demand](#).

To create item supply plans:

1. Go to Transactions > Demand Planning > Generate Item Supply Plan.
2. If you use NetSuite OneWorld, select a subsidiary.
3. If you use the Multi-Location Inventory feature, select a location.
The items list shows only items for the selected location that are time-phased replenishment items.
4. Select a department, if you track them.
5. Select a class, if you track them.

6. If you use the Distribution Resource Planning feature, choose a setting for the **Plan Through Distribution Network** box.

When this box is checked, NetSuite runs demand planning calculations across all locations and items within the network.

- First, NetSuite evaluates affected items based on the selection
 - All assemblies associated with this item
 - All components associated with this item
- Next, NetSuite evaluates all locations based on the selection
 - All source locations in the Bill of Distribution associated with this location
 - All destination locations in the Bill of Distribution associated with this location

7. The **Start Date** field determines the earliest transaction date that can be shown on any new orders created. Verify the default current date or enter another date.
 8. In the **End Date** field, enter the last date in the range you want to create orders through. Orders are created based on item demand on or prior to the end date selected.
- For example, if you enter **July 30**, supply plans are created based on demand between the current date and July 30th.
9. Select all items you want to create supply plans for.
 10. Click **Submit**.

When you click **Submit**, NetSuite creates supply plans for the selected items.

i Note: If you use the Assemblies feature, any linked items also have their supply plan created. For example, if an assembly has a component item that is set to time-phased replenishment, NetSuite generates the component item supply plan.

In the Item Supply Plan list, you can open individual plans by clicking the plan name.

When you view an individual plan, the Item Supply Plan page displays the orders to be created for the item. The orders are created based on information from the Generate Supply Plan page.

When calculating the supply plan, NetSuite considers prior transactions as existing supply orders on the start date of the planning calculation:

- A purchase order that is not closed
- A purchase order that is not fully received
- A purchase order that has a date that is before the start date

If an existing purchase order does not have an expected receipt date, the receipt date is the purchase order's transaction date.

For more information, see [Creating Orders from Supply Plans](#).

Manufacturing Routings

If you generate orders and also use the Manufacturing Routing and Demand Planning features, you can define production scheduling methods on work orders. For more information, see the help topics [Production Scheduling Methods Overview](#) and [Supply Planning and Routing](#).

Monitoring the Supply Plan Status

After you submit the supply plan generation page, some plans may take time to be generated. You can check the status of plan generation to monitor progress.

To monitor supply plan creation status:

1. Go to Transactions > Demand Planning > Generate Item Supply Plan > Status.
2. The Generate Item Supply Plan Status page shows a list of page submissions.
3. For each line, the following shows:
 - **Date and time created**
 - **Percent complete**
 - **Status**
4. You can filter the list of plans by entering a date range in the **From** and **To** fields.
5. After all supply plan calculations complete, the status for the line shows as **Complete**

Viewing, Editing, and Deleting a Supply Plan

After you generate supply plans for an item, you can review the plans to verify the quantities suggested for replenishment. This review enables you to identify items that may need a higher or lower quantity ordered than is calculated by NetSuite. You can change these quantities on the supply plan, and the corresponding order you create will match the quantities indicated on the supply plan.

For example, on June 1st, you used a demand plan for Deluxe Widgets to generate a supply plan. NetSuite suggests that you order an additional 100 units on July 1 to replenish stock. Today is June 30th and you think you may need more widgets for a last-minute order that might arrive. You can edit the supply plan to show a quantity of 150 Deluxe Widgets. The correct amount appears on the Order Items page when you are ready to place the order.

ORDER DATE	RECEIPT DATE	ORDER TYPE	SOURCE LOCATION	QUANTITY	ORDER CREATED	ORDER
3/30/2014	4/1/2014	Purchase Order		100		
4/29/2014	5/1/2014	Purchase Order		200		
5/30/2014	6/1/2014	Purchase Order		300		

To view or edit a supply plan:

1. Go to Transactions > Demand Planning > Item Supply Plan > List.
2. Next to a supply plan listed, do one of the following:
 - Click **View** to see the existing plan.
 - Click **Edit** to make changes to the existing plan.
3. The item, location, and unit of measure are displayed for reference but cannot be changed.
4. You can edit the **Memo** field if needed. Text you enter here can be searched for later.
5. Enter an **Order Date**. This is the transaction date used for purchase orders or work orders created.
6. Enter a **Receipt Date**. This is the date you expect the goods to be received into the warehouse.
7. In the **Order Type** field, select the means of generating more stock. This can be by purchase order or by work order, depending on the item.
8. The **Quantity** field displays the suggested number to replenish. You can enter a larger or smaller number to buy or create another amount of the item.
9. When viewing a plan, the **Order Created** field shows whether the order has been created.
10. Click **Save**.

To delete a plan:

1. In the **Supply Plan** list, beside the plan you want to delete, click **Edit**.
2. On the Supply Plan page under **More Actions**, click **Delete**.

Manually Entering an Item Supply Plan

You can enter a supply plan for creating item orders that is not derived from any demand plan in the system. This enables you to enter plans based on data or projections from external sources other than your NetSuite account.

To manually enter a supply plan:

1. Go to Transactions > Demand Planning > Item Supply Plans > New.
2. If you use NetSuite OneWorld, select a subsidiary.
3. If you use the Multi-Location Inventory feature, select a location.
The list of items filters to show only items for the selected location that are time-phased replenishment items with no existing supply plan.
4. Select the item to create a supply plan for.
5. Select a **Unit of Measure** to create a supply plan based on the unit.
6. Click the **Order Date** field to create a new order with the following entered:
 - **Order Date** – This is the date when the order is to be sent to the vendor (for a purchase order). It can also be the date to start the assembly (for a work order.)
 - **Receipt Date** – This is the date when the order is expected to be received from the vendor (for a purchase order. It could also be the date when the assembly is expected to be completed (for a work order.)
 - **Order Type** – This is the type of supply to be generated to meet the projected demand.
 - For inventory items, supply is always purchased.
 - For assembly items, supply may be generated by either purchasing the item or building the item.

NetSuite suggests either purchasing or building based on the Supply Type field on the item record.
7. Click **Add**.
8. Repeat steps 6 and 7 for each order you want to add to the supply plan.
9. After all orders are added, click **Save**.

After it is saved, the supply plan shows in the list. To view the plan, go to Transactions > Demand Planning > Item Supply Plan > List..



Note: You also can use the Import Assistant to import item supply plan data from a CSV file. See the help topic [Item Supply Plan Import](#).

Creating Orders from Supply Plans

After you create supply plans, the orders showing on supply plans also show in the list on these pages:

- [Using Order Items](#)
The Order Items page shows purchase orders to be created.

- [Using Mass Create Work Orders](#)

The Mass Create Work Orders page shows only pending work orders for assembly items.

You can place the orders on the plan in these two ways.

Using Order Items

Use the following procedure to bulk order items.

To bulk order items:

1. Go to Transactions > Inventory > Order Items.
2. You can filter the list of orders to show only items using the Time Phased replenishment method. To do so, in the **Replenishment Method** field, select **Time Phased**.
3. Verify that the box in the **Order** column is checked next to each item you want to create orders for.
4. Verify that the appropriate quantity and rate are shown for each item.
5. Click **Submit**.

Now, the purchase orders are created for these items.

For more details about using the Order Items page, see the help topic [Ordering Items](#).

Using Mass Create Work Orders

You can use the Mass Create Work orders function to create many work orders at one time for your assembly items.

To mass create work orders, go to Transactions > Inventory > Mass Create Work Orders.



Important: If you want work orders included in the snapshot, you should generate the work orders as Planned Firm, Planned Open, or Released.

Manufacturing Routings

If you generate orders and also use the Manufacturing Routing and Demand Planning features, you can define production scheduling methods on work orders. For more information, see the help topics [Production Scheduling Methods Overview](#) and [Supply Planning and Routing](#).

Reporting on Demand Planning

After you create item demand plans and supply plans, you can use NetSuite demand planning reports to monitor and assess your demand planning activities.

These reports are available at Reports > Demand Planning:

- [Demand History by Item Report](#) – This report displays the historical data used for item demand analysis based on transaction history.
- [Item Demand Plan by Item Report](#) – This report displays the item demand quantity by item.
- [Item Demand Forecast vs. Actual Report](#) – This report displays the forecasted demand for an item compared to the demand during a certain period of time. This report helps you determine the accuracy of the forecast and whether supply or pricing needs to be adjusted for an item.

The following inquiry is available at Transactions > Demand Planning:

- [Gross Requirements Inquiry](#) – This inquiry provides an overview of the progressive supply and demand cycle. It lists quantities required and quantities supplied on each transaction date listed. Each

transaction and date displays with the more-on-hand or less-on-hand quantity of the transaction. It also displays the resulting total quantity on hand for the item.

Gross Requirements Inquiry

The Gross Requirements Inquiry provides an overview of the progressive supply and demand cycle, listing quantities required and supplied on each transaction date listed. Each transaction and date appears with the more-on-hand or less-on-hand quantity of the transaction. It also provides the resulting total quantity on hand for the item.

If you check the Show Details box in the header, each line of the Gross Requirement Inquiry details the orders that create the demand. This includes sales orders, transfer orders, and work orders that create demand for items and components.

When the Show Details box is checked, the Gross Requirement Inquiry shows these additional columns:

- Order – This column lists the sales order or transfer order number that created the demand for the line. Click the number to open the order.
- Assembly – This column lists the work order number that created the demand for the line. Click the number to open the order.

This list shows in segments of 250 lines and has a maximum of 1000 lines. For more information about line limitations, see the help topic [Limitations for Displaying Transactions](#).

Gross Requirements Inquiry						
LOCATION	UNIT OF MEASURE					More
ITEM						SAFETY STOCK LEVEL
<input type="checkbox"/> SHOW DETAILS						0
DATE	ORDER DATE	TYPE	TRANSACTION	ORDER	ASSEMBLY	QUANTITY
4/23/2012		Beginning Inventory				31
4/23/2012		Entered Supply Orders				41
4/29/2012		Forecast from Demand Plan				0
5/6/2012		Forecast from Demand Plan				0
5/13/2012		Forecast from Demand Plan				0
5/20/2012		Forecast from Demand Plan				0



Note: NetSuite considers work order demand for orders with a production start date that is before the planning start date. NetSuite does not consider suggested work order demand for orders with a production start date that is before the planning start date.

For example: Today is August 1st.

The start date of the planning run is August 1st.

Based on the forecast demand, a work order is suggested by the planning process. The suggested work order start date is July 30th. The start date is prior to the start date of the planning run. Therefore, the dependent demand of the components of this work order is not considered by the planning process.

To run a Gross Requirements Inquiry:

1. Go to Transactions > Demand Planning > Gross Requirements Inquiry.
 2. If you use NetSuite OneWorld, select a subsidiary.
 3. Optionally check the **Show Details** box.
 4. If you use the Multi-Location Inventory feature, select a location.
- The items list is filtered to show only items for the selected location that are time-phased replenishment items and have existing supply plans generated.

The following information for the selected item is displayed in the form header for reference:

- **Unit of Measure** (supply plan unit only)

■ Safety Stock Level

The inquiry displays data retrieved from your account regarding all events that change the stock level of the selected item. Each line of the inquiry results shows the following:

- **Date** – The expected date of receipt (for supply) or shipping (for demand orders.)
 - **Order Date** – The date an order needs to be placed to meet demand.
 - **Type** – The type of event that affects the inventory level.
- The following are the types of events you may see on an inquiry:
- Entered Demand Orders
 - Entered Supply Orders
 - Forecast from Demand Plan
 - Planned Work Order - Component Consumption
 - Planned Work Order - Assembly Build
 - Planned Purchase Order
- **Quantity** – The amount of the item that will be added to or removed from the on-hand amount resulting from the event on that line.
 - **Quantity on Hand** – The new total amount on hand including the amount changed by the event on that line.

The first line of the inquiry shows the beginning quantity on hand of the item. Subsequent lines show each transaction that adds or subtracts inventory to change the stock level and shows the new resulting quantity on hand.

For example, an inquiry may display the following:

Date	Order Date	Type	Quantity	Qty on Hand
1/15		Beginning inventory		0
1/20	1/14	Planned Supply: Purchase Order	10	10
2/1		Existing Supply Order	8	18
3/1		Item Demand	9	9

Notice that an order is placed on January 14th and is expected to be received on January 20th. This order will add 10 units to the on hand count. Then, on February 1st, an order is expected that adds 8 more units to stock, bringing the total to 18. Finally, on March 1st, demand for the item removes 9 units from stock, leaving a total of 9 units on hand.



Important: All posting and non-posting transactions recorded during a day are posted to Planned Supply Orders. The beginning on hand amount reflects the inventory on hand at the beginning of the day.

The inquiry details the anticipated movement of item quantities into and out of stock. The details provide the expected level of stock at any certain date. By viewing and assessing the inquiry, you can determine if the inventory variances look appropriate. This assessment enables you to make changes to supply plans as necessary to maintain optimal stock levels.



Note: If you make changes to a Gross Requirements Inquiry, you must re-generate the supply plan and run a new inquiry to see the changes.

For example, you may view an inquiry and decide to create an order that is suggested on a supply plan. After you create the order at the Order Items page, you must regenerate the supply plan. Then, you must

run a new inquiry to see the new order as a line on the inquiry. For details on ordering, see [Creating Orders from Supply Plans](#).

Distribution and Demand Planning

If your company handles distribution of assemblies, you can use Demand Planning to assist in your production and distribution.

Demand Planning is available for assemblies only when you use the Advanced Inventory Management **and** Work Orders features. For more information, see [Setting Up Demand Planning](#).

Supply Plans and Assembly Items

When you use Demand Planning for assemblies, you can use a supply plan as a list of daily ordering recommendations. A supply plan is generated based on the following:

- outstanding purchase orders, work orders, and transfer orders
- safety stock
- item demand
- existing sales orders or forecasts from a demand plan

For more information, see [Creating Item Supply Plans](#).

When you calculate supply plans for an assembly, the supply for all related components in the assembly's Bill of Materials is also evaluated. If a work order is suggested for an assembly, NetSuite evaluates determines if additional work orders for sub-assemblies or purchase orders for component items. Work orders that prompt component consumption of materials are evaluated for additional supply requirements of components. This is true when the demand source for sub-assemblies and components is set to Entered and Planned Orders.

Supply Source for Assemblies

If you use the Allow Purchases for Assemblies preference, you can determine whether to purchase or build needed assemblies on supply plans. This depends on the setting for the Supply Source field on the item record. For more information, see about the Supply Source field in [Entering Purchasing and Inventory Information on Items](#).

Assembly Replenishment Strategies

Distributors that sell assembly items can choose an inventory replenishment model that is an appropriate strategy to fit their needs. Two common methods discussed below are the Build to Stock method and Build to Order method. Both of these strategies are supported using NetSuite's Demand Planning feature.

For example, Smith Computers and Jones Computers are companies that sell similar systems, but they each use different supply chain strategies.

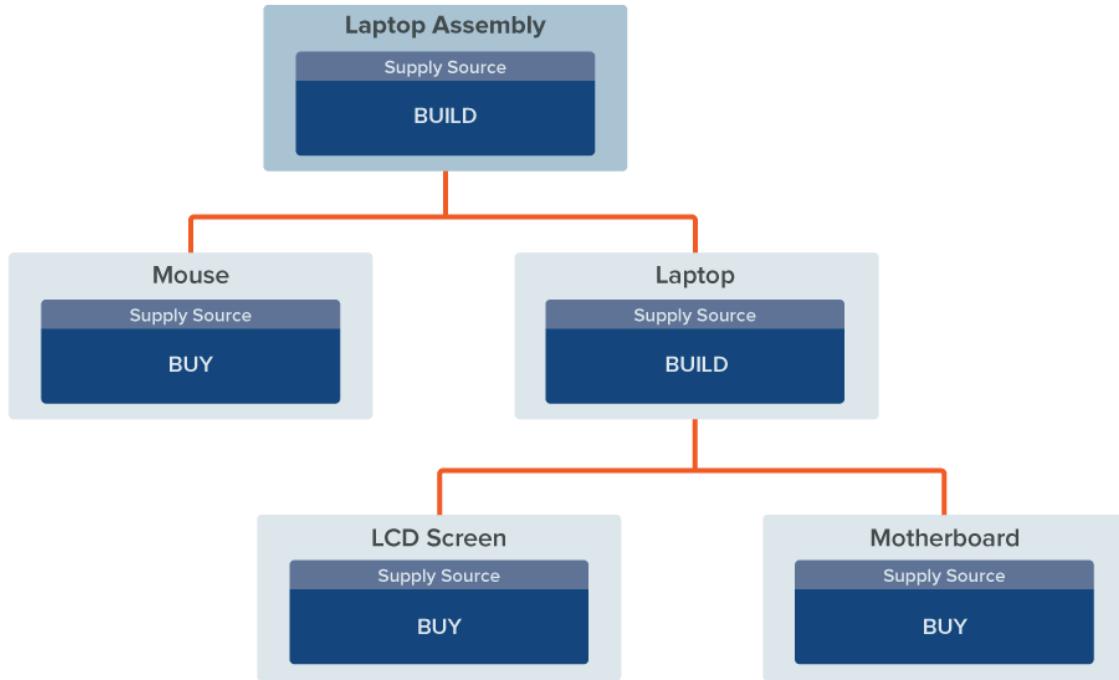
Build to Stock

Smith Computers sells their product at retail stores and they use a Build to Stock supply strategy.

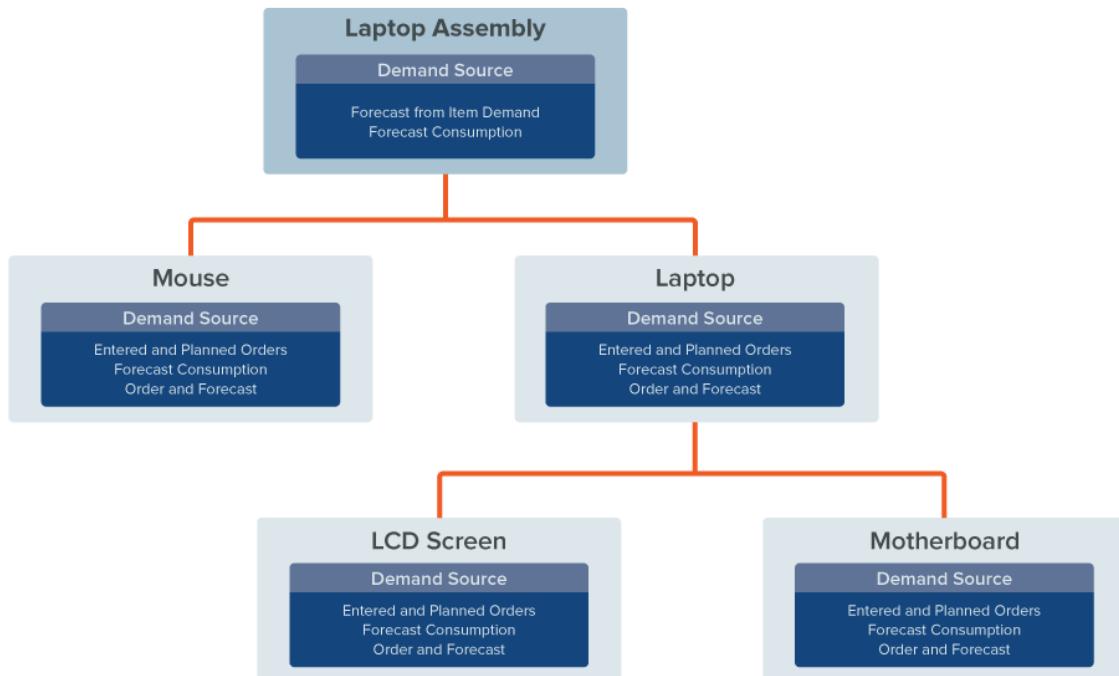
When a customer comes in to make a purchase, the Smith Computers product is readily available at the store. There is no wait time. Customers pay for the product at the retail location and take it home immediately.

In the Build to Stock model, Smith Computers determines replenishment ordering requirements for components based on the forecast demand of the item's final assembly. This forecast demand of the final assembly is in the demand plan.

The graphic below shows that the Smith Laptop Assembly item is comprised of component items that have supply sources of both Buy and Build.



To deploy a Build to Stock model, the following are suggested demand source selections for each item in the Bill of Materials structure.





Note: Recommendations for subcomponents anticipate that you will be selling these components to customers.

Build to Order

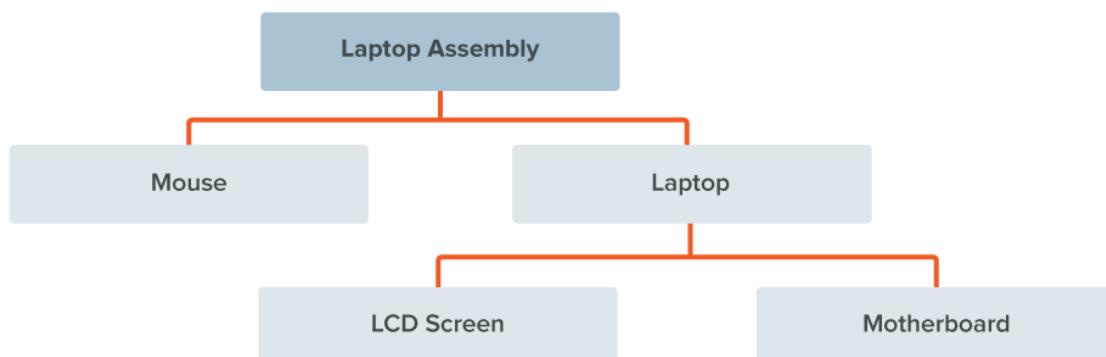
Jones Computers sells their product to customers through their website and they use a Build to Order supply strategy.

With a Build to Order model, Jones computers are not readily available to consumers during sales order entry. Only after a customer places an order for a product, Jones assembles the item that will be delivered to the customer.

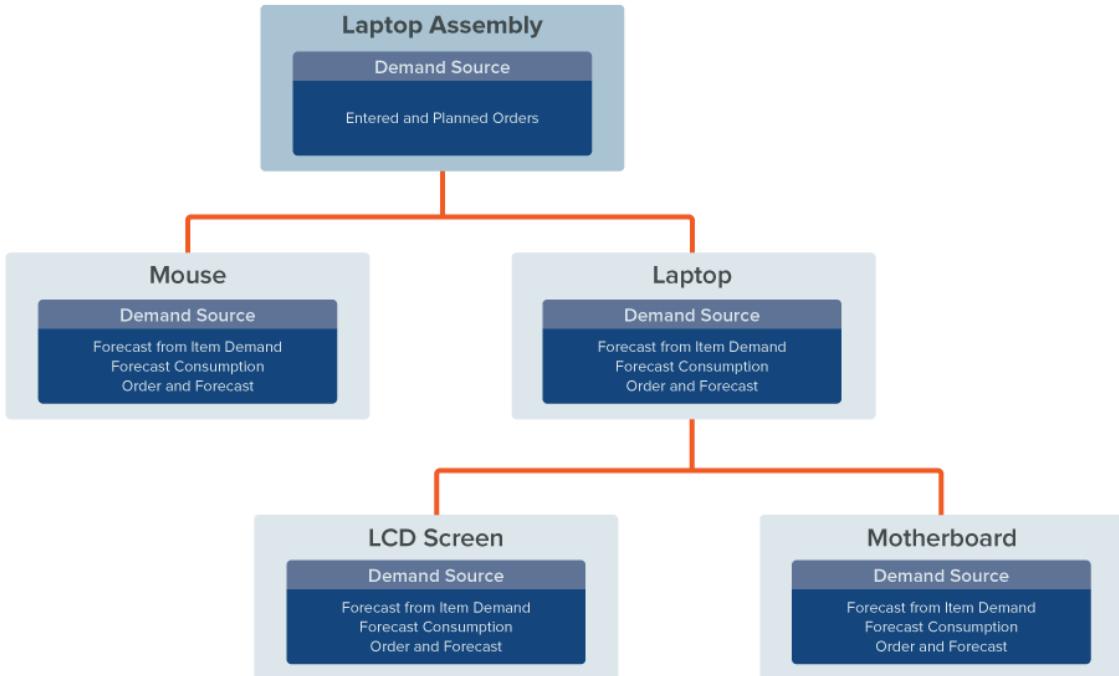
The Jones strategy does not require keeping large quantities of stock on hand, and having surplus stock is rare. Therefore, money is not tied up in idle inventory on shelves. However, customers must wait the two-week lead time necessary to build the product before they receive it.

Jones determines replenishment ordering requirements for components based on the forecast of existing sales for the item.

The following shows the member items in a Jones Laptop Assembly. When a customer places an order for a Jones Laptop Assembly, demand for these items increases.



To deploy a Build to Order model, the following are suggested demand source selections for each item in the Bill of Materials structure.



Note: Recommendations for subcomponents anticipate that you will be selling these components to customers.

Distribution Resource Planning

The Distribution Resource Planning feature is available to facilitate resource planning across multiple locations and subsidiaries within a network. You can transfer items and materials between warehouses, factories, and retail stores when you establish networks to encompass locations that contribute to meeting demand. For more information, see [Distribution Resource Planning](#).

Demand Planning and Inventory Allocation

When you process backorders, NetSuite helps automate your process for allocating anticipated future inventory when you use customer priority settings. To maintain strategic customer relations, you can prioritize order processing in favor of customers who make up a significant portion of your sales. NetSuite lets you set up order processing to ensure inventory is reserved for timely fulfillment of priority customer orders rather than first-come, first-served fulfillment.

Backordered items can be shipped based on the commitment priority you designate. Employees who manage sales orders can use this prioritization option to reallocate the quantity committed to orders based on designated priority.

First, assign priority numbers for customers. NetSuite calculates the expected ship dates for sales order items based on priority standing and when inventory is expected to arrive in your warehouse. NetSuite examines the quantity on hand or uncommitted quantities and can automatically prioritize planned sales orders and transfer orders based on their importance.



Important: The topics below apply only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see [Supply Allocation](#) for additional information.

To set up your account to use enhanced inventory allocation and customer prioritization, see the following topics:

- [Enabling Features for Enhanced Allocation](#)
- [Setting Inventory Allocation Preferences](#)
- [Setting Customer Commitment Priorities](#)
- [Committing Orders](#)

Enabling Features for Enhanced Allocation

The following steps ensure that you have the required Enhanced Allocation features enabled in your account.



Important: This topic is applicable only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see [Supply Allocation](#) for additional information.

To verify that features are enabled in your account:

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. To use enhanced inventory allocation, verify that the box is checked next to these features:
 - **Inventory - Items & Inventory** subtab, under **Inventory**
 - **Team Selling - CRM** subtab, under **Sales**
 - **Demand Planning - Items & Inventory** subtab, under **Inventory**
3. Click **Save**.

Setting Inventory Allocation Preferences

Set the following preferences to use enhanced allocation functionality.



Important: The instructions below apply only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see these topics for additional information: [Supply Allocation](#), [Setting Demand Preferences for Supply Allocation](#).

To set inventory allocation preferences:

1. Go to Setup > Accounting > Preferences > Accounting Preferences.
2. Make a selection for each of the following preferences and then save.

Item Commitment Transaction Ordering

Select one of the following to determine which order will have items committed to it when there is an open quantity.

- **Order by Expected Ship Date** – Commits only based on the latest expected ship date.
- **Order by Order Priority** – Commits based on set customer priority regardless of transaction date or expected ship date. When the preference is set to this option, an Order Priority column appears on forms for work orders, sales orders, and transfer orders. NetSuite uses this field to calculate the order priority for allocation.
- **Order by Transaction Date** – Commits only based on the latest transaction date.

Default Commitment Options

Make selections to determine the default commitment setting on work orders, sales orders, and transfer orders. The commitment setting you choose defaults to show in the Commit Criteria field on new transactions you enter. When entering a transaction, you can change the setting from the default if necessary.

These preferences can be useful when you use Demand Planning. For example, NetSuite may create a large quantity of new work orders, but you do not want your items committed to those orders yet. You can set your preference for the Default commit option on work order preference to **Do Not Commit**.

Selections can be made for the following transactions:

- Default commit option on sales order (requires the Sales Orders feature enabled)
- Default commit option on work order (requires the Work Orders feature enabled)
- Default commit option on transfer order (requires the Multi-Location Inventory feature enabled)

For each applicable transaction type, select one of the following default settings:

- **Available Qty** – Items for this order are committed as available. Available items are shipped, and items that are not available are placed on backorder.
- **Complete Qty** – This order ships only when all items are committed.
- **Do Not Commit** - Items are not committed to this transaction until this setting is changed.

These preferences default to the selection Available Qty.

Perform Item Commitment After Transaction Entry

The Perform Item Commitment After Transaction Entry preference determines whether NetSuite automatically allocates items to orders.

- Check this preference box to allow NetSuite to automatically allocate items based on the preference under Item Commitment Transaction Ordering. For details on setting customer priorities, see [Setting Customer Commitment Priorities](#).
When this box is checked, NetSuite performs automatic inventory allocation when new item quantities become available. In addition, NetSuite automatically removes available quantities from sales orders, work orders, and transfer orders in some scenarios. For more information, see [Committing Orders](#).
- Clear this box if you do not want NetSuite to automatically allocate items because you want to choose which orders to allocate items to. For details on manual allocation, see [Reallocating Items](#).

Setting Customer Commitment Priorities

To use the priority-based item commitment functionality in your account, you must mark customer records to prioritize the importance of filling orders for customers. Then, transactions are processed based on the indicated priority of the selected customer.

When the Item Commitment Transaction Ordering preference is set to Order by Order Priority, NetSuite commits items based on set customer priority. This is true regardless of transaction date or expected ship

date. In addition, an Order Priority column appears on forms for work orders, sales orders, and transfer orders. NetSuite uses this field to calculate the order priority for allocation. Priority is determined at the transaction line level based on the set customer priority.



Important: The procedure below is valid only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see [Supply Allocation](#) for additional information.

To set the Order Priority box on a customer record:

1. Go to Lists > Relationships > Customers.
2. Click **Edit** or **New**.
3. In the **Default Order Priority** field, enter a number to designate the priority for this customer.



Important: The lower the number you enter, the higher the priority. For example, priority 1 is higher than priority 2. You can also enter decimal numbers in this field. For example, priority 1.5 is higher than priority 2.

This field is available only when you use the **Commitment by Order Priority** preference. For details about this preference, see [Setting Inventory Allocation Preferences](#).

4. If you are entering a new record, complete the additional fields as necessary.
5. Click **Save**.

Committing Orders

Committing items to orders can be done automatically or manually based on your setting for the Perform Item Commitment after Transaction Entry preference.



Important: This topic is applicable only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see [Supply Allocation](#) for additional information.

- When you use the Perform Item Commitment after Transaction Entry, NetSuite automatically allocates items based on the set priority. The order with the highest priority will have items committed for fulfillment. Automatic calculation of quantities to be committed to prioritized orders can save you time and effort.
- When you do not use the Perform Item Commitment after Transaction Entry, you can manually select specific order lines for allocation. You can use the Reallocate Items page to determine how items will be allocated to orders. Using manual allocation gives you complete control over what items are committed and when.

You can also schedule items to be committed to orders on a predefined, scheduled basis using the Commit Order Schedule page. For more information, see [Creating Commit Orders Schedule](#).

This preference box must be **cleared** to view and use the Commit Orders and Commit Order Schedule pages. For details about setting this preference, see [Setting Inventory Allocation Preferences](#).

The Commit Orders and Commit Order Schedule pages function differently than the Reallocate Items page in the following way:

- You must manually update the quantities on the Reallocate Items page.

- NetSuite automatically calculates the quantities on the Commit Orders and Commit Order Schedule pages.
 - Use the Commit Orders page to commit orders on demand. Go to Transactions > Inventory > Schedule Commit Orders > Run Now.
 - Use the Commit Order Schedule page to create a schedule for item commitment for a predefined group of orders. Go to Transactions > Inventory > Schedule Commit Orders

To commit orders on demand:

1. Go to Transactions > Inventory > Schedule Commit Orders > Run Now.
2. The list on the Commit Orders page shows individual lines for each order. Optionally filter this list using these selections:
 - **Location** – Select a location to show only orders associated with that location.
 - **Item** – Select an item to show only orders that include the item.
 - **Customer** – Select a customer to show only orders from that customer.
 - **Order number** – Select to filter the list by order number.
 - **Transaction Type** – Select a type to show only orders of that type.
 - **Commit Criteria** – Select to filter the list by the Commit Criteria setting (Available Qty, Complete Qty, Do Not Commit)

Kits and their components cannot be set to Do Not Commit.
 - **Select All Orders** – Check this box to select all orders in the list.



Note: This option restricts the committed orders to 200 at one time to enhance commit time.

3. Enter the following range criteria:

Order Priority From/To – Enter a range of priority numbers to filter the list by customer priority.

Transaction Date From/To – Enter a date range to filter the list by transaction date.

Expected Ship Date From/To – Enter a date range to filter the list by expected ship date.

4. Check the **Set Order Line to Firm** box to firm each order line you select. Quantities on lines that are firmed cannot be reallocated to other orders.
5. Select specific rows when inventory is available for commitment. Check the box in the **Select** column next to each line you want to commit.



Note: When order lines with the Commit Criteria setting **Do Not Commit** are selected, NetSuite changes the setting to **Available Quantity** during processing.

6. Optionally sort the list.

In the **Processing Options** section, make a selection in one or more of these three fields to sort:

- **Sort By**
- **Then By**
- **Then By**

Sorting options for each field include the following:

- Commit
- Customer
- Item

- Location
- Order #
- Order Priority
- Order Qty
- Qty Committed
- Qty Fulfilled
- Transaction Date
- Transaction Type
- Expected Ship Date

i Note: **Expected Ship Date** requires the Demand Planning feature. However, the **Expected Ship Date** field appears on the Commit Orders page even if the Demand Planning feature is not enabled. If the Demand Planning feature is not enabled, the expected ship date is the same as the transaction date.

Beneath each field you can check the **Descending** box if you want results to return in descending order instead of ascending order. This box is clear by default. The sorting sequence applies to all orders if the **Select All Orders** box in the header is checked. NetSuite remembers your sorting choices the next time you open the Commit Orders page.

i Note: If you do not use the **Perform Item Commitment After Transaction Entry** preference, sorting selections are different. These sorting selections take priority over the preference only if the sorting sequence fields on the Commit Orders page are left blank. Selections in the sorting sequence fields on the Commit Orders page override the preference.

7. Click **Submit**.

After you click Submit, the selected orders are committed as indicated.

If you use the preference **Perform Item Commitment After Transaction Entry**, NetSuite performs automatic inventory allocation when new item quantities become available.

NetSuite automatically removes available quantities from sales orders, work orders, and transfer orders in the following scenarios:

- Reducing or deleting a quantity on an item receipt or other adjustment.
For example, you change a receipt quantity from 10 to 8. NetSuite must automatically update the quantity already allocated to sales orders by -2. This helps ensure a consistent quantity available count for the item.
- Changing the sales order quantity below the quantity committed.
For example, a sales order has a quantity of 10, and 10 units are already allocated. Then you change the sales order quantity to 9. NetSuite automatically updates the quantity committed to the order to 9 and the one removed returns to the quantity available count for reallocation.

Calculations to de-commit items are based on the **Item Commitment Transaction Ordering** setting.

If multiple orders are changed and a large amount of inventory is removed, your setting determines the orders that are affected. It also determines the orders that get items allocated first. Quantities will be de-committed based on the following criteria:

When Sales Order feature is enabled, the quantity is reduced on the transaction with a committed quantity and the oldest transaction date.

When the Demand Planning feature and Sales Order feature are enabled, NetSuite commits quantities differently. The quantity is reduced on the transaction with a committed quantity and the oldest transaction date, priority, or expected ship date.



Note: De-committing items is location specific. Quantity adjustments are made only in the location identified on the line or form header.

Quantities are also de-committed if you set the commit option on order lines to Do Not Commit after an order has been committed.

To view the status of an allocation, go to Transactions > Inventory > Schedule Commit Orders > Status

Item Reallocation and the Calculation Examples

The examples below describe situations that can trigger item reallocation and the calculations that are used.

System Calculation Example 1: Changing Item Receipts or Adjustments

If you reduce the quantity indicated or delete the entire transaction, NetSuite reduces the quantity of items available to be committed to orders. Such a reduction brings the quantity available below the quantity on hand.

For example, first create an item receipt for Item A for 10 units. Then create a sales order for 5 units of Item A. Next, manually commit 5 units to the sales order. Then, delete the item receipt. After being deleted, NetSuite automatically removes the allocation for the 5 units of A on the sales order.

System Calculation Example 2: Changing Order Quantities

On a sales order, if you reduce the item quantity on the order, that quantity becomes lower than the quantity committed.

For example, you create an item receipt for 10 units of Item A. Then, create a sales order for 5 units of Item A. Next, manually commit 5 units to the sales order. Then, change the sales order quantity from 5 to 2. NetSuite automatically changes the committed quantity to 2 units of Item A on the sales order.

Reallocate Open Quantities to Recommit Items for Fulfillment

You can use the Reallocate Open Quantities function to change which orders items are committed to for fulfillment. NetSuite examines orders for item quantities that are committed but not firmed or fulfilled yet. These items are eligible to be reallocated to commit them to another order for fulfillment.

For example, a new order is entered that is a higher priority to fulfill than existing open orders. You can reallocate open quantities of items committed on existing orders to fulfill the highest priority order.

- Sales Order #1 is entered and is assigned a low priority.
- Items are committed to Sales Order #1 using the Commit Orders page.
- Sales Order #2 is entered and is assigned a high priority.
- The customer service rep prefers to fulfill order #2 before order #1. He wants to undo the commitment of items to order #1 and commit those items to order #2.

To reallocate items to different orders, check the Reallocate Open Quantities box on the Commit Orders or Commit Order Schedule page. Then the pages show all sales orders, work orders, and transfer orders that include committed quantities not yet picked, packed, or shipped.



Note: Orders that are firmed do not show in the list. This list is sorted by transaction date by default. Click a column header to change the sort order.

If you select a line that has Commit Criteria - Do Not Commit and then save the form, the status changes to Available Qty.

After you submit the Commit Orders form, a Process Status page displays the status of each object being processed. As each object processes, **one** of the following occurs:

- Reallocate Open Quantities box **was not** checked - The item record is immediately updated to reflect the correct quantity committed, quantity available, and quantity backordered.
- Reallocate Open Quantities box **was** checked - NetSuite processes the selections and calculates which are the top priorities for fulfillment. Items are reallocated to the highest priorities.

Item Commitment Transaction Ordering Set to Order by Order Priority

When the Item Commitment Transaction Ordering preference is set to Order by Order Priority, lines on the following transactions display a Firmed box:

- work order
- sales order
- transfer order

When the Firmed box is checked, the line items are no longer eligible for reallocation to another order. The items must remain committed to the firmed order.

You can also use the Mass Update function to firm orders.

Creating Commit Orders Schedule

To schedule the commitment of items to orders, first define search criteria to identify the types of orders to which items should be committed.

Choose from the following methods to define your saved search:

- Define criteria within the form
- Define criteria using a saved search

After you set search criteria, you can commit items for that group of orders on a predefined, scheduled basis. After you set a schedule, items are committed at the scheduled time.



Note: This topic is applicable only if you have not enabled the Supply Allocation feature in your account. If you have enabled the Supply Allocation feature, see [Supply Allocation](#) for additional information.

To create a commit orders schedule:

1. Go to Transactions > Inventory > Schedule Commit Orders.
2. Click **New Commit Order Schedule**.
3. Enter a name and description for the commit order schedule.
4. If you do not want to make the commit order schedule active right away, check the **Inactive** box.
5. In the **Recurrence Frequency** field, set how frequently you want this commit order schedule to run. Choose from the following:

- Daily
 - Weekly
 - Monthly
 - Quarterly
 - Twice a Year
 - Annually
 - One Time
6. Under **Repeat Every**, if **Recurrence Frequency** is Weekly, Monthly, or Annually, select how many weeks, months, or years the commit order schedule should run.
 7. In the **Next Date** field, use the calendar icon to select the next date you want to run this commit order schedule.
 8. In the **Next Time** field, select the next time at which you want to run this commit order schedule.
 9. If you use NetSuite OneWorld, select a **Subsidiary**.
 10. To reallocate item quantities that are committed but not firmed or fulfilled yet, check the **Reallocate Open Quantities** box. For more information, see [Reallocate Open Quantities to Recommit Items for Fulfillment](#).
 11. Check the **Set Order Line to Firm** box to firm each order line in the saved search you defined. Quantities on lines that are firmed cannot be reallocated to other orders. When you set a line as firm, it is no longer updated by changing supply scenarios:
 - Less On-Hand adjustments do not trigger a reduction in a committed line quantity when otherwise typically appropriate.
 - If a line is partially committed and firmed, the balance of the line quantity is never committed. This is true unless the partially committed line is marked as not firm.
 12. Clear the **Use Search Criteria** box to select an existing saved search.
 1. Under Commit Order Options, select an existing saved search in the **Saved Search** list.
 - Access a Saved Search Definition page in any of the following ways and then select the record type on which to base the saved search:
 - Transactions > Management > Saved Searches > New
 - List > Search > Saved Searches > New
 - Reports > Saved Searches > All Saved Searches > New
 - To save a search as you are defining it, click **Create Saved Search** on the search page.
 - To save a search after you have run it and viewed its results, click **Save This Search** on the search results page.

For more information about defining a saved search, see the help topic [Defining a Saved Search](#).
 13. Check the **Use Search Criteria** box to define search criteria within the form.
 1. Choose how to sort search results in these fields: **Sort By, Then By, Then By**. Check the **Descending** box next to each if you do not want the results in ascending order.
 2. Under **Filter** in the **Type** list, select one or more appropriate filters to define criteria.

See the help topic [Formulas in Search](#) for additional information.
-  **Note:** NetSuite creates a saved search using the criteria entered on the form.
14. Click **Save**.

Time Fences

Materials planners can use planning and demand time fences to protect a materials plan. By protecting existing orders from being changed, time fences can prevent disruptions and refine demand requirements in short range materials planning.



If you use the Demand Planning feature, you can set up Demand Time Fences and Planning Time Fences.

- **Demand Time Fences** – Planners can establish demand time fences to use more accurate data for planning purposes. Demand time fences use sales order for short range planning and use forecasts for long term planning.
- **Planning Time Fence** – Planners can establish planning time fences to provide better suggestions of future supply. First, establish a planning time fence, such as the lead time for procuring the materials. Then, after a planning time fence is established, NetSuite creates supply orders only outside the established time fence.

Demand Time Fences

Instead of using forecasts for long term planning, demand time fences refine short range planning by using sales orders instead of forecast sales. Examining sales can provide more accurate data for short-term planning purposes.

For example, to plan for your supply of an item needed right away, make your plan more accurate. Calculate demand based on the orders that are already entered. Existing orders show real-time demand instead of a forecast estimation. To plan the supply needed based on item orders instead of forecast estimations, set up a time fence for that item. Then, when orders are entered within the time fence, NetSuite knows to make demand calculations based on item orders.

When NetSuite runs the supply planning process, the calculation of demand respects demand time fences for items. The demand time fence is time frame of days relative days from the start date of the process. Based on the item record and preferences set, NetSuite determines if a demand time fence applies.

Then, NetSuite establishes demand for planning based on the following criteria:

1. Within the time fence, NetSuite always uses actual orders.
Days within the time fence are calculated as being equal to or less than (start date + demand time fence).
2. Outside the time fence, NetSuite uses the setting from the demand source.
Days outside the time fence are calculated as being greater than (start date + demand time fence).
For time fences, the start date is determined as follows:
 - Expected ship date (for sales orders and transfer orders)
 - Production end date (for work orders)

You should use item lead times as a guide when setting up time fences to make supply planning as accurate as possible. For more information, see [Time Fences on Item Records](#).

For details about using forecasts and the Demand Source setting for long term planning, see [Demand Planning on Item Records](#).

Planning Time Fence

Planning time fences enable NetSuite to make better suggestions for planning future item supply. You can establish a planning time fence, such as the lead time of procuring materials. After a planning time fence is established, NetSuite creates only the supply orders outside the time fence. When the supply planning process is run, the creation of supply orders respects the planning time fence. This means that late orders are no longer immediately created for recommendation. They will be created outside the supply order.

First, NetSuite checks the item record for a planning time fence.

1. Within the time fence, NetSuite will not create a purchase order or work order.
Days within the time fence are calculated as being equal to or less than (start date + planning time fence).
2. Outside the time fence, NetSuite processes the order normally.
Days outside the time fence are calculated as being greater than (start date + planning time fence).
For time fences, the start date is determined as follows:
 - Expected ship date (for sales orders and transfer orders)
 - Production end date (for work orders)



Note: If the item record does not identify a planning time fence, NetSuite uses the default planning time fence value in the inventory preference setting. For details on this preference, see [Setting Time Fence Preferences](#).

If the Planning Time Fence field is blank on the item record and the Inventory Management Preferences page, no planning time fence is used.

Planning Time Fence Example

The planning time fence for item #ABC is 5 days, equal to the lead time of the item. A new sales order for item #ABC is created today. This is considered new demand for the item. Although the demand shows today, NetSuite respects the planning time fence and does not create an order today. NetSuite fulfills the demand with a planned order that has an expected receipt date on day 5. For details about setting a planning time fence, see [Time Fences on Item Records](#).

Setting Time Fence Preferences

The Time Fence preferences provide the system default for item planning.

To set preferences for time fences:

1. Go to Setup > Accounting > Inventory Management Preferences.
2. Enter information for each field described below as necessary.
 - **Default Demand Time Fence** – Enter the days between zero and 365. This number is used as the default demand time fence and shows in the Demand Time Fence field on item records you create. You can change this default number if necessary when you create each item record. This field defaults to zero.
 - **Default Planning Time Fence** – Enter the days between zero and 365. This number is used as the default demand time fence and shows in the Planning Time Fence field on item records you

create. You can change this default number if necessary when you create each item record. This field defaults to zero.

The screenshot shows the 'Inventory Management Preferences' window. It includes fields for 'DEFAULT LEAD TIME' (14 Days), 'DEFAULT SAFETY STOCK' (7 Days), 'DEFAULT PREFERRED STOCK LEVEL' (30 Days), 'ORDER ANALYSIS INTERVAL' (6 Months), 'SEASONAL ANALYSIS INTERVAL' (1 Month), and 'ESTIMATED DEMAND CHANGE' (0.0%). Under 'TRANSACTIONS TO CONSIDER', there are radio buttons for 'ORDERS' and 'ACTUAL SALES'. A dropdown for 'DAY OF WEEK TO PERFORM CALCULATION' is set to 'Sunday'. At the bottom, two fields are highlighted with a red border: 'DEMAND TIME FENCE' and 'PLANNING TIME FENCE', both currently set to 'Days'.

3. Click **Save**.

i Note: NetSuite suggests maximum values as follows: maximum for Planning Time Fence = 363, maximum for Demand Time Fence = 364. The Generate Item Supply Plan start and end dates can handle a maximum of 364 days. When Demand Time Fence is 364, last day is computed as 365 (start date + planning time fence + 1), which exceeds the limit. The first day that NetSuite can generate an order falls outside of the window of the supply plan start and end dates. Therefore, no order is generated.

Time Fences on Item Records

After you set your preferences, you can use the following time fence fields on item records.

- **Demand Time Fence** – This field defaults to the number entered in the Default Demand Time Fence field. Verify the default or enter a number between zero and 365 to determine the demand time fence for this item.
- **Planning Time Fence** – This field defaults to the number entered in the Default Planning Time Fence field. Verify the default or enter a number between zero and 365 to determine the planning time fence for this item.

If the Multi-Location Inventory feature is enabled in your account, these fields show on the locations subtab. Otherwise, these fields show in the header of item records.

Planning Action Messages

The Demand Planning feature enables planners to use planning action messages that suggest actions to take during each supply plan run to optimize productivity. A Planning Messages subtab on the item

supply plan displays a message for each line. Some messages are also incorporated as part of saved search for generating reminders and alerts in a dashboard.

For example, the following message informs us that on 12/3 the quantity on hand is above the safety stock.

Planning Action Messages: Inventory On Hand

The following messages reference only the day listed and is a projected quantity:

- Quantity On Hand is Below Zero
- Quantity On Hand is Below Safety Stock
- Quantity On Hand is Above Safety Stock

On Hand Message Codes

- Quantity On Hand is Below Zero
 - Message Code = 100
 - This occurs when there is new demand within the time fence and the On Hand Quantity is less than zero.
- Quantity On Hand is Below Safety Stock
 - Message Code = 110
 - This message occurs when the end of day On Hand Quantity is below the safety stock level and more than zero.
- Quantity On Hand is Above Safety Stock
 - Message Code = 120
 - This message occurs when the On Hand Quantity with the recommendation is above the safety stock level.

Planning Action Messages: Late Purchase and Work Orders

- Late Purchase Order
 - Message Code = 130
 - This message occurs when purchase orders have not been fully received before the start date.
- Late Work Order
 - Message Code = 140
 - This message occurs when work orders have not been fully built before the start date.

Planning Action Messages: Reschedule In, Reschedule Out / Cancel

NetSuite provides recommendations to adjust the order date of work orders and purchase orders based on demand changes. These adjustments change the date of the order to be earlier or later than originally entered, depending on increased or decreased demand requirements.

For example, a supply order is generated for an item, but there is no demand for the additional supply. NetSuite can suggest to change the order date to a later date, or Reschedule Out. This can prevent unnecessary expenditures on stock before it is needed.

If item demand surpassed the supply orders generated, NetSuite can suggest to change the order date to an earlier date, or Reschedule In. This can help you manage stock levels to fulfill orders in a timely manner.

These messages are available as part of saved search for use with reminders and dashboards.

Setting Up Reschedule Out Messages

To use Reschedule Out messages, specify the number of allowed Reschedule Out Days on individual item records.

For example, there is an unapproved purchase order or work order scheduled for receipt on a day that lacks demand for the item. NetSuite can suggest the following:

- Reschedule the items ordered on that line to a later date to meet anticipated future demand.
- Cancel the items ordered on that line when there is no anticipated demand in the future.

 **Note:** Reschedule Out messages are available only for unapproved purchase orders and work orders that are outside the planning time fence. For details about time fences, see [Time Fences](#).

To setup reschedule out messages:

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to an item to open the item record in edit mode.
3. In the **Reschedule Out Days** field, enter a number between one and 180. This number is the maximum number of days that the order can be delayed from the current day.

For example, you enter **10** in this field. An order for this item can be moved to ten days later, but not eleven or more days.

This field defaults to be blank.

 **Note:** If this field is left blank, NetSuite does not make recommendations to reschedule orders for this item to a later date.

4. Click **Save**.

Reschedule Out Code

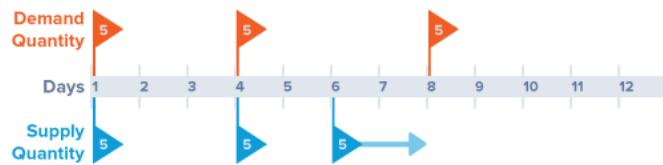
The following message code can appear for rescheduled or canceled transactions:

Code	220
Message	Cancel or Reschedule Out
Date	Transaction Date
Reschedule Date	Proposed Rescheduled-Out Date
Transaction	Order

Quantity	Order Quantity
----------	----------------

Reschedule Out: Example 1

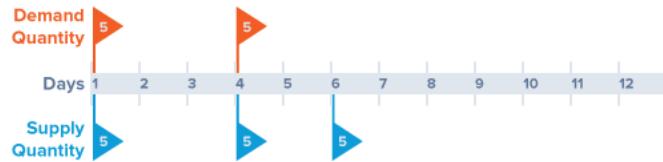
Reschedule Out Days = 5



The supply order scheduled for day 6 is not needed on that day, based on demand. NetSuite suggests delaying this order, moving it out from day 6 to day 8, when there is demand for the item.

Reschedule Out: Example 2

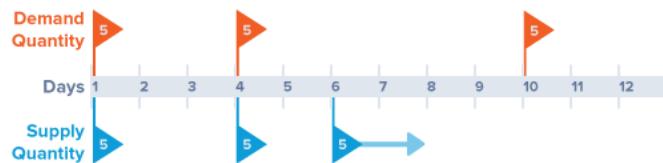
Reschedule Out Days = 7



The supply order scheduled for day 6 is not needed on that day based on demand. Additionally, no demand shows after day 6. NetSuite suggests to cancel the order line.

Reschedule Out: Example 3

Reschedule Out Days = 2



The supply order scheduled for day 6 is not needed on that day based on demand. Because the Reschedule Out Days is set to 2, NetSuite reschedules the order from day 6 to day 8.

Setting Up Reschedule In Messages

For example, for a specific day there is demand but no supply is scheduled to cover it. NetSuite can examine future unapproved supply orders and suggest rescheduling the order to an earlier date.

Reschedule In messages are available only for unapproved purchase orders and work orders that are outside the planning time fence. For details about time fences, see [Time Fences](#).

To setup reschedule in messages:

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to an item to open the item record in Edit mode.

3. In the **Reschedule In Days** field, enter a number between one and 90. This number is the maximum number of days that the order can be advanced from the current day.

For example, you enter **10** in this field. An order for this item can be moved up ten days earlier, but not eleven or more days.

This field defaults to be blank.



Note: If this field is left blank, NetSuite does not make recommendations to reschedule orders for this item to a later date.

4. Click **Save**.

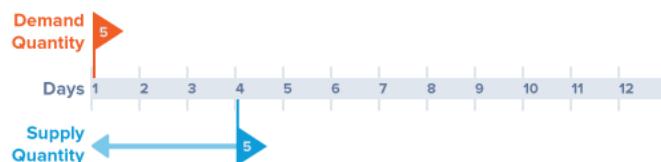
Reschedule In Code

The following message code can appear for rescheduled or canceled transactions:

Code	220
Message	Reschedule In
Date	Transaction Date
Reschedule Date	Proposed Rescheduled-In Date
Transaction	Order
Quantity	Order Quantity

Reschedule In: Example 1

Reschedule In Days = 5



There is a demand for a quantity of 5 items on day 1. However, there is no order for additional supply to meet that demand until day 4. NetSuite suggests to move the supply to an earlier date, from day 4 to day 1.

Reschedule In: Example 2

Reschedule In Days = 2



Day 1 shows demand for 5 items, but no planned supply for that day. NetSuite checks for existing supply orders from day 1 to day 3 to find an order that can move up to an earlier date. Finding no supply orders through day 3, NetSuite suggests the creation of a new supply order on day 1 for the five items.

Distribution Resource Planning

Supply chain planners can use the Distribution Resource Planning feature to plan and optimize inventory across locations and, for OneWorld accounts, subsidiaries. Items can be transferred between locations to meet supply needs within a preset distribution network.

When you use Distribution Resource Planning, you also have the option to increase inventory by transferring items from another location within your distribution network. Using NetSuite, distribution planning is implemented based on a distribution network made up of subsidiaries that trade with each other.

For example, Wolfe International includes the following subsidiaries:

- North America
- South America
- EMEA
- APAC

Each subsidiary manages multiple distribution categories:

- North America: NA Soap, NA Paper, NA Drinks
- EMEA: EMEA Soap, EMEA Paper, EMEA Drinks
- APAC: APAC Soap, APAC Paper, APAC Drinks

For each distribution category, goods are distributed across locations within the network, per subsidiary.

Soap Category

- Factory 1
 - Warehouse 1
 - Retail Location 1
 - Retail Location 2
 - Warehouse 2
 - Retail Location 3
 - Retail Location 4

Retail Location 1 has a large supply of Deluxe Soap, but low demand for it. Retail Location 3 has a low supply of Deluxe Soap, but high demand for it. Both locations are in the same subsidiary, therefore, Wolfe can use Distribution Resource Planning to transfer items between locations to meet demand.

When you use Distribution Resource Planning, you also have the option to increase inventory by transferring items from another location within your distribution network. An item record shows a supply type called Transfer. With this supply type, NetSuite determines the source location of the transfer order based on the bill of distribution associated with the item.

Set Up Distribution Resource Planning

1. Set up the feature:

- An administrator must enable the **Distribution Resource Planning** feature.

To use Distribution Resource Planning, you must also enable Demand Planning and Multi-location Inventory.

- Set preferences.

See [Setting Up Distribution Resource Planning](#).

2. Create distribution categories.
See [Creating a Distribution Category](#).
3. Create a distribution network.
See [Creating a Distribution Network](#).
4. Create bill of distribution.
See [Creating a Bill of Distribution](#).
5. Associate the distribution category and network to an item.
See [Associating Distribution Categories](#).

After the setup is complete, generate supply plans that incorporate Distribution Resource Planning settings into demand planning and order generation. For more information, see [Generate Supply Plans Using DRP](#).

Setting Up Distribution Resource Planning

Set up Distribution Resource Planning by enabling the feature and setting preferences.

To enable distribution resource planning:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the box next to **Distribution Resource Planning**.



Note: To use Distribution Demand Planning, you must first enable **Demand Planning** and **Multi-location Inventory**.

3. Click **Save**.

To set distribution resource planning preferences:

1. Go to Setup > Accounting > Accounting Preferences.
2. Click the **Order Management** subtab.
3. In the **Transfer Orders** section, make selections from the following fields:
 - **Default Transfer Order Status**
 - **Generate Transfer Orders in Supply Planning**
 For details about setting these preferences, see [Transfer Order Preferences](#).
4. Click **Save**.

Creating a Distribution Category

To use Distribution Resource Planning, you must set up distribution categories. A distribution category is a group of items that is commonly sold together. For example, you might create categories called Paper and Soap to use for the distribution of these items:

- Paper
 - Paper towels
 - Paper cups
- Soap

- Hand soap
- Dish soap

To create distribution categories:

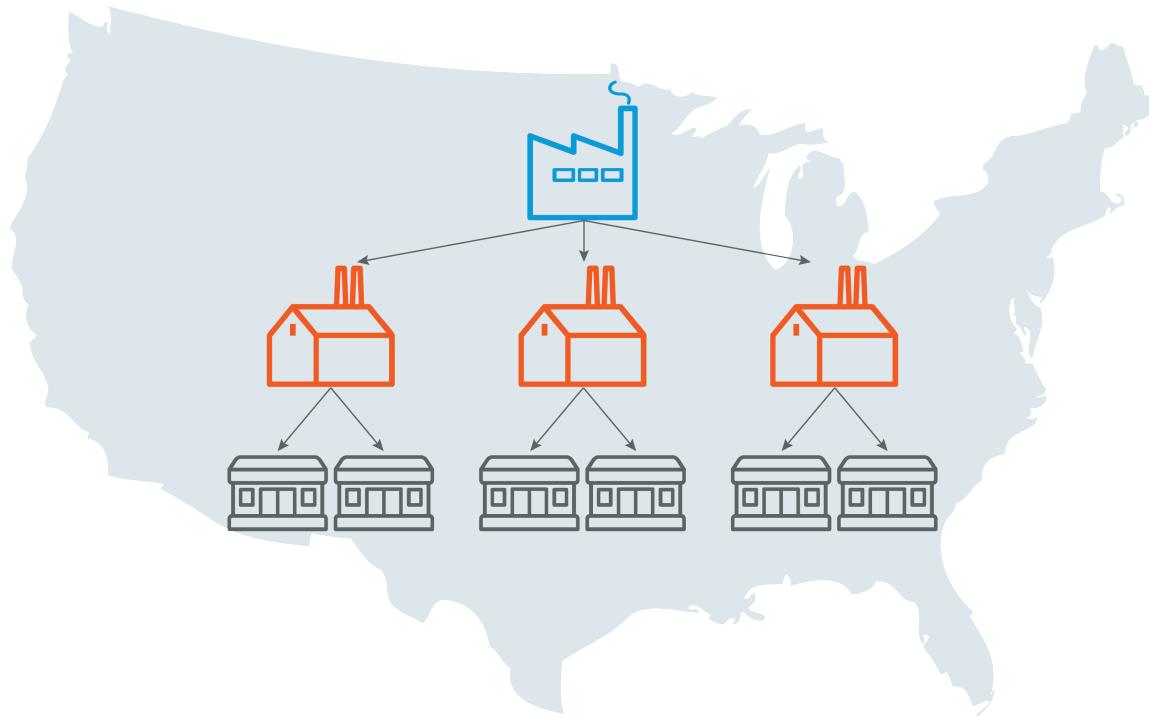
1. To add choices to this list, go to Setup > Accounting > Setup Tasks > Accounting Lists > New.
2. Click **New**.
3. Click **Distribution Category**.
4. Enter a name for the distribution category.
5. Click **Save**.

Creating a Distribution Network

After you create distribution categories, you can set up a distribution network. A distribution network is made of categories that are grouped for trading.

 **Note:** A network can have multiple subsidiaries.

First, identify which categories are included in each network. Then, NetSuite distribution planning can be implemented based on a subsidiary-wide distribution network and goods can be transferred between locations as needed.



For example, Wolfe International includes the following subsidiaries:

- North America
- EMEA
- APAC

Each subsidiary manages multiple distribution categories:

- North America: NA Soap, NA Paper, NA Drinks
- EMEA: EMEA Soap, EMEA Paper, EMEA Drinks
- APAC: APAC Soap, APAC Paper, APAC Drinks

To manage these categories, Wolfe can set up a network such as the following:

- Network = North America
 - Category = NA Soap
 - Category = NA Paper
 - Category = NA Drinks
- Network = APAC
 - Category = APAC Soap
 - Category = APAC Paper
 - Category = APAC Drinks

When each network identifies categories and subsidiaries in this way, NetSuite can identify sources within the network to process distribution planning.

To create a distribution network:

1. Go to Lists > Supply Chain > Distribution Network > New (Administrator).
2. Enter a name for the distribution network.
3. Optionally enter a memo. Later, you can search for the text you enter here.
4. For OneWorld accounts, select the appropriate subsidiaries to associate with this network.
5. If you do not want this network to show in lists, check the **Inactive** box.
6. In the **Distribution Category** field, select a category. For more information, on creating categories, see [Creating a Distribution Category](#).
7. Click **Add**.
8. Add additional categories as appropriate.
9. Click **Save**.

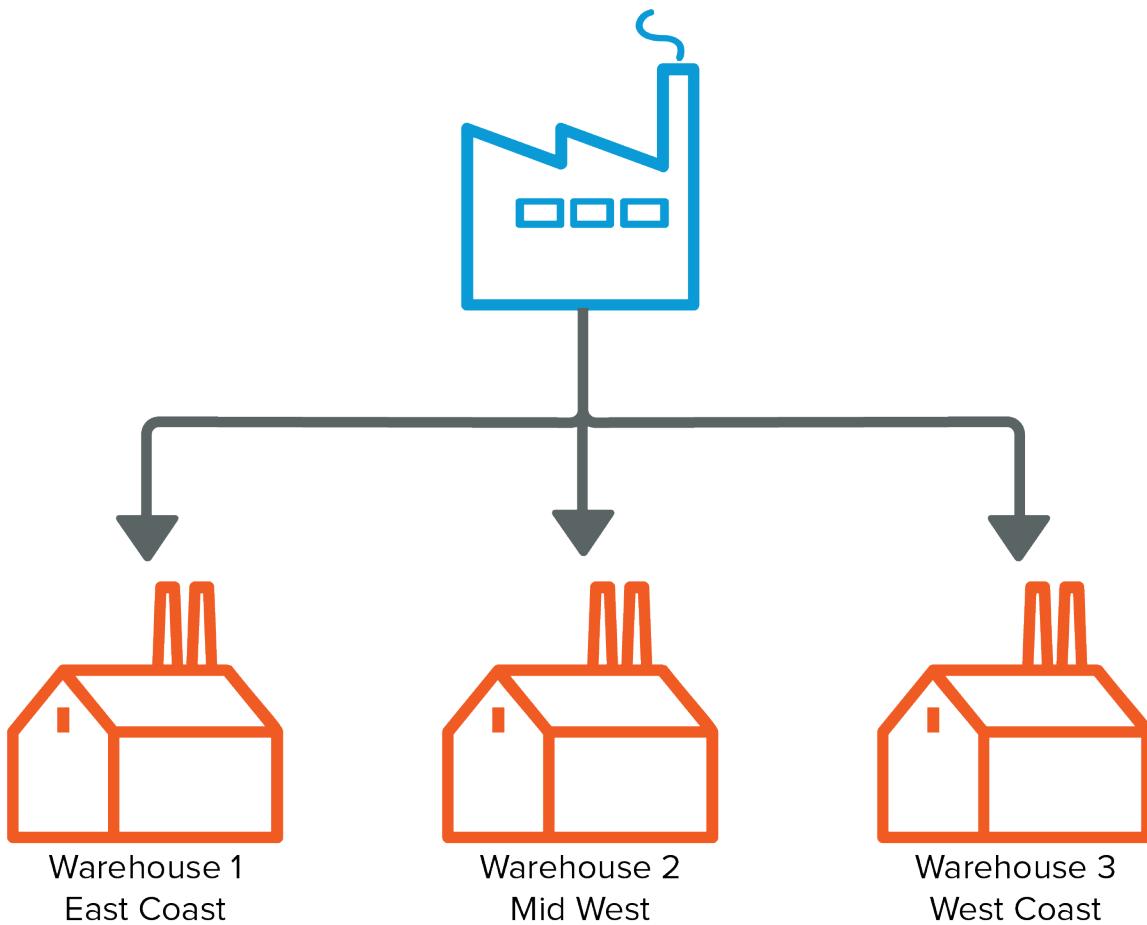
Creating a Bill of Distribution

After you set up categories and define distribution networks, you need to create bill of distribution records. A bill of distribution defines the relationship between locations within a network and determines how each location sources materials.

For example, the network for Wolfe International includes the following:

- Factory 1
 - Warehouse 1 (East Coast)
 - Warehouse 2 (Midwest)
 - Warehouse 3 (West Coast)

Wolfe sets up bill of distribution records to determine the way the East Coast warehouse will source its goods. For example, supply may be sourced from warehouse to warehouse, or factory to warehouse. Bills of distribution can be created to define the required scenarios.



For the preceding example, all three warehouses receive goods from Factory 1. Therefore, three bills of distribution need to be created. One for each warehouse that needs goods from the factory.

The bill of distribution defines the distribution network, category, subsidiary and location. This information defines where the goods will be received. Then, set up distribution sources that specify the source location and subsidiary, as well as lead time and safety time. This information defines where the goods will be supplied from.

The following screenshot shows a bill of distribution that defines when DRINKS are received into the US ONLY location of the Parent Company. Those drinks will arrive from the Canadian Subsidiary source in the form of a transfer.

Bill Of Distribution			
Edit	Back	Actions ▾	
Primary Information			
Distribution Network	North America Distribution	Location	US ONLY LOCATION
Distribution Category	DRINKS	<input type="checkbox"/> Inactive	
Subsidiary	Parent Company		
Distribution Source *			
EFFECTIVE DATE	SUPPLY TYPE	SOURCE SUBSIDIARY	SOURCE LOCATION
12/29/2001	Transfer	CAN Subsid	CAN ONLY LOCATION

To create a bill of distribution:

1. Go to Lists > Supply Chain > Bill Of Distribution > New (Administrator).
2. Select a distribution network. The source location and the receiving location must both be members of the network you select.
3. Select a distribution category.
4. Select the receiving subsidiary.
5. Select the receiving location.
6. Check the **Inactive** box if you do not want this bill of distribution to show in lists.
7. Select the source subsidiary.
8. Select the source location.
Each source location has an effective date defined.
9. Enter the appropriate lead time. This is the amount of time required to transfer the item from the source to the destination location.
10. Enter the appropriate safety time. This amount is the buffer time required for a transfer in addition to the lead time. For example, this buffer can account for transportation variations.
11. Click **Save**.

Associating Distribution Categories

On the item record, an item can be associated to a distribution network and distribution category within a network. This defines the ways in which this item can be distributed within the network. For example, Wolfe International can associate item records for different kinds of drinks to be part of the North America Network: Drinks category.

To associate distribution categories:

1. Open an item record in edit mode.
2. In the Distribution Network field, choose the appropriate network. The network you select determines the categories available for you to choose. If the distribution network field is blank, then distribution category must also be blank.
3. In the Distribution Category field, choose the appropriate category.



Note: The network and category you select must be associated with the subsidiary selected for the item in the Classifications section of the item record.

For more information see [Creating a Distribution Network](#) and [Creating a Distribution Category](#).

4. Complete additional fields as necessary.
5. Click **Save**.

After a distribution category is defined on the item record, NetSuite can incorporate network transfers into demand planning for the item. In addition to increasing stock using purchases and assembly builds, network transfers can move an item where it is needed. With a Transfer supply type, NetSuite determines the source location of the transfer order based on the bill of distribution associated with the item.

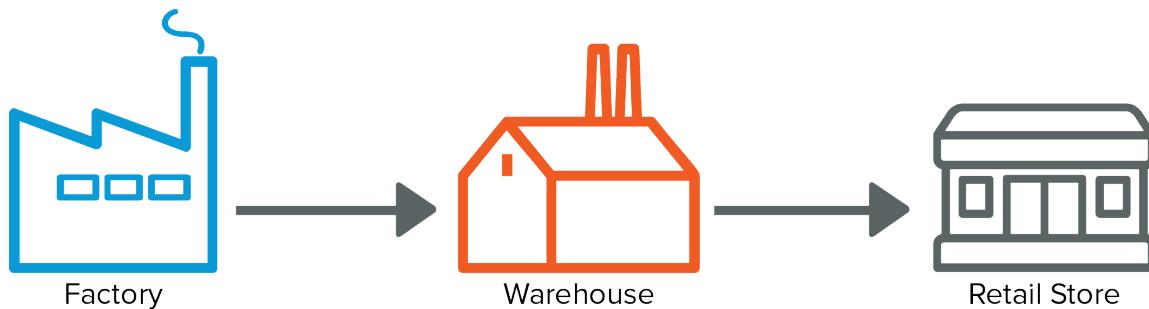
Generate Supply Plans Using DRP

After you set up Distribution Resource Planning (DRP), you can generate supply plans incorporating Distribution Resource Planning settings into demand planning and order generation. You do this by using

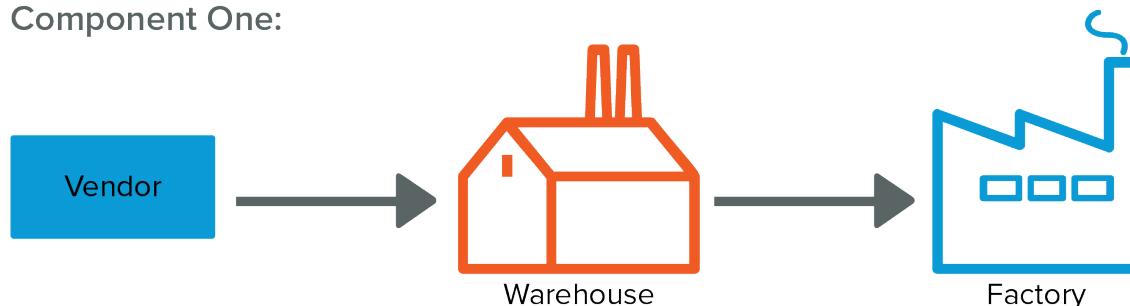
the Plan Through Distribution Network setting on the Generate Item Supply Plan page. With this setting, NetSuite examines the Bill of Distribution for appropriate items to determine sourcing for orders. For more information, see [Creating Item Supply Plans](#).

When you generate supply plans with this setting, NetSuite considers availability and lead times for all required assemblies and components across the network. The ultimate goal of filling a retail store order requires considering purchasing components from a vendor, warehousing and factory processing, and transit times.

Assembly One:



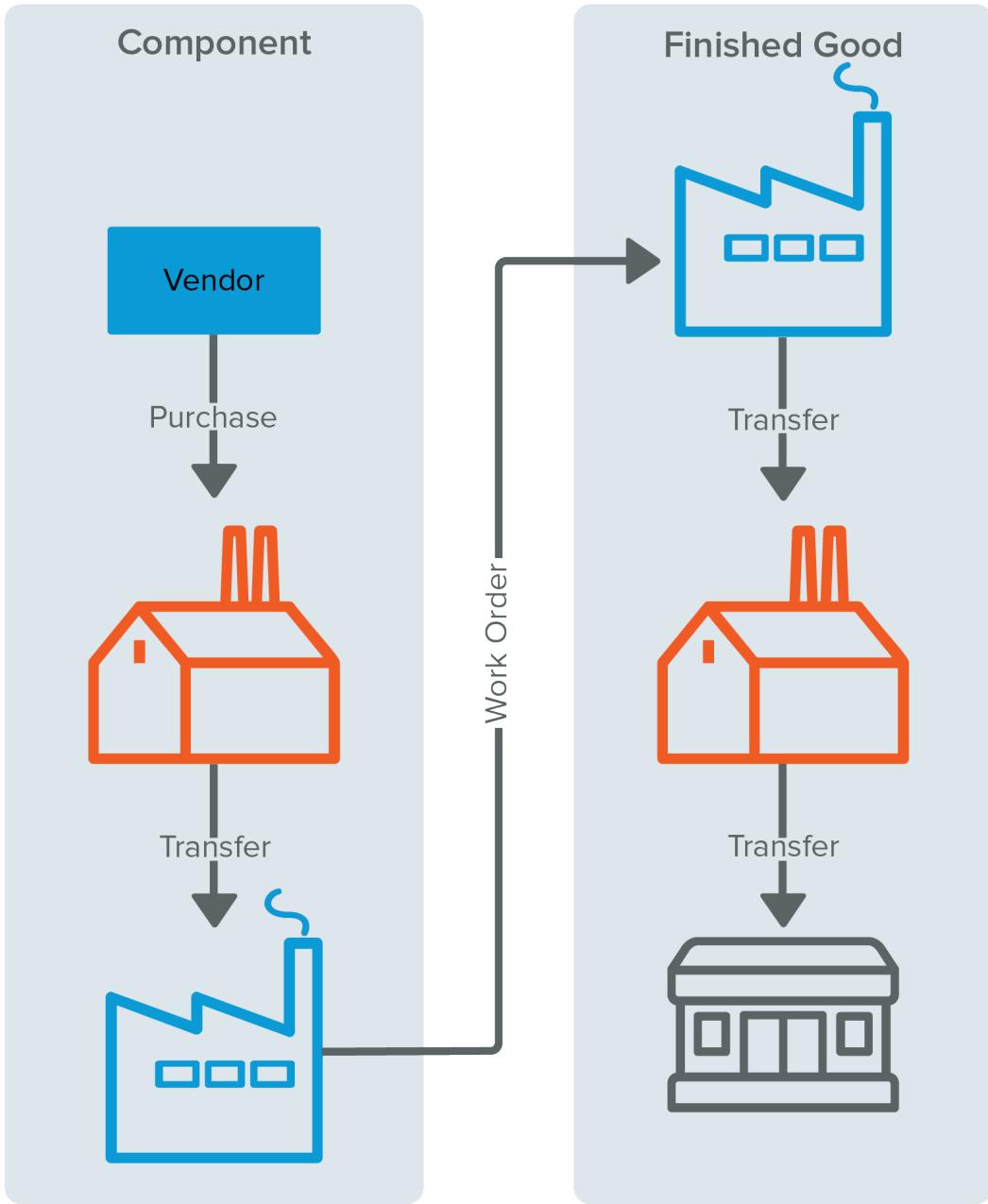
Component One:



When generating supply plans, NetSuite checks the Bill of Distribution to determine the source location for the transfer. This is true if the following options are set on the item record:

- The replenishment method is set to Time Phased.
- A distribution network and category are selected.
- The location has a Supply Type of Transfer

When these criteria are met, NetSuite generates transfer orders as indicated by the Bill of Distribution.



In the preceding example, demand is met working backward using the following steps:

- A forecast of finished goods is established at a Retail Store.
The finished good is received at the Retail Store.
- A transfer order of finished goods is created from Warehouse One to the Retail Store.
Warehouse One transfers the finished good to the Retail Store.
- A transfer order of finished goods is created from the Factory to Warehouse One.
The Factory transfers the finished good to Warehouse One.
- A work order of finished goods is created in the Factory.

The Factory manufactures the finished good.

- Dependent demand of a component generates a transfer order from Warehouse Two to the Factory.
- Warehouse Two transfers the component item to the Factory.
- A purchase order is created for the component to the Vendor.
- The Vendor ships the component item to Warehouse Two.

If at any stage in the process a components is selected, NetSuite re-evaluates the demand supply across the entire network and modifies orders accordingly. When the netting calculation requires new supply and the new supply is a transfer, NetSuite does the following:

1. If the required transfer is within one subsidiary, NetSuite creates an unapproved transfer order.
2. If the required transfer is across multiple subsidiaries, NetSuite creates an unapproved intercompany transfer order.

Transfer order creation using Distribution Resource Planning respects applicable demand time fences and planning time fences. For more information, see [Time Fences](#).

If supply plan generation cannot be completed quickly, the job calculations are queued and the results will display on a status page.

After NetSuite generates supply plans, you can view individual plans that detail transfer orders that have been generated for items. The transfer orders identify the source location for the transfer, quantity to be transferred and expected receipt date.

After supply plans are verified you can place the orders.



Important: To create the orders, you must use the order items page or mass create work order page. See [Creating Orders from Supply Plans](#).

Supply Planning

NetSuite Supply Planning helps supply planners determine how to best establish criteria to fulfill demand plan requirements. Supply planning uses sales order details to generate dependent demand for work order components. The objective is to balance supply and demand to achieve your organization's financial and service objectives.

Supply plans generate a suggested schedule for purchasing or manufacturing items for supply. A supply plan lists the suggested purchase orders and work orders that can increase item supply based on lead times and expected demand. Planners can create multiple supply plans which can vary depending on the planner's criteria, such as planning horizon, planning scope, and planning rules.

To learn more about the Supply Planning Lifecycle, watch the following video:



[Supply Planning Lifecycle - A Day in the Life](#)

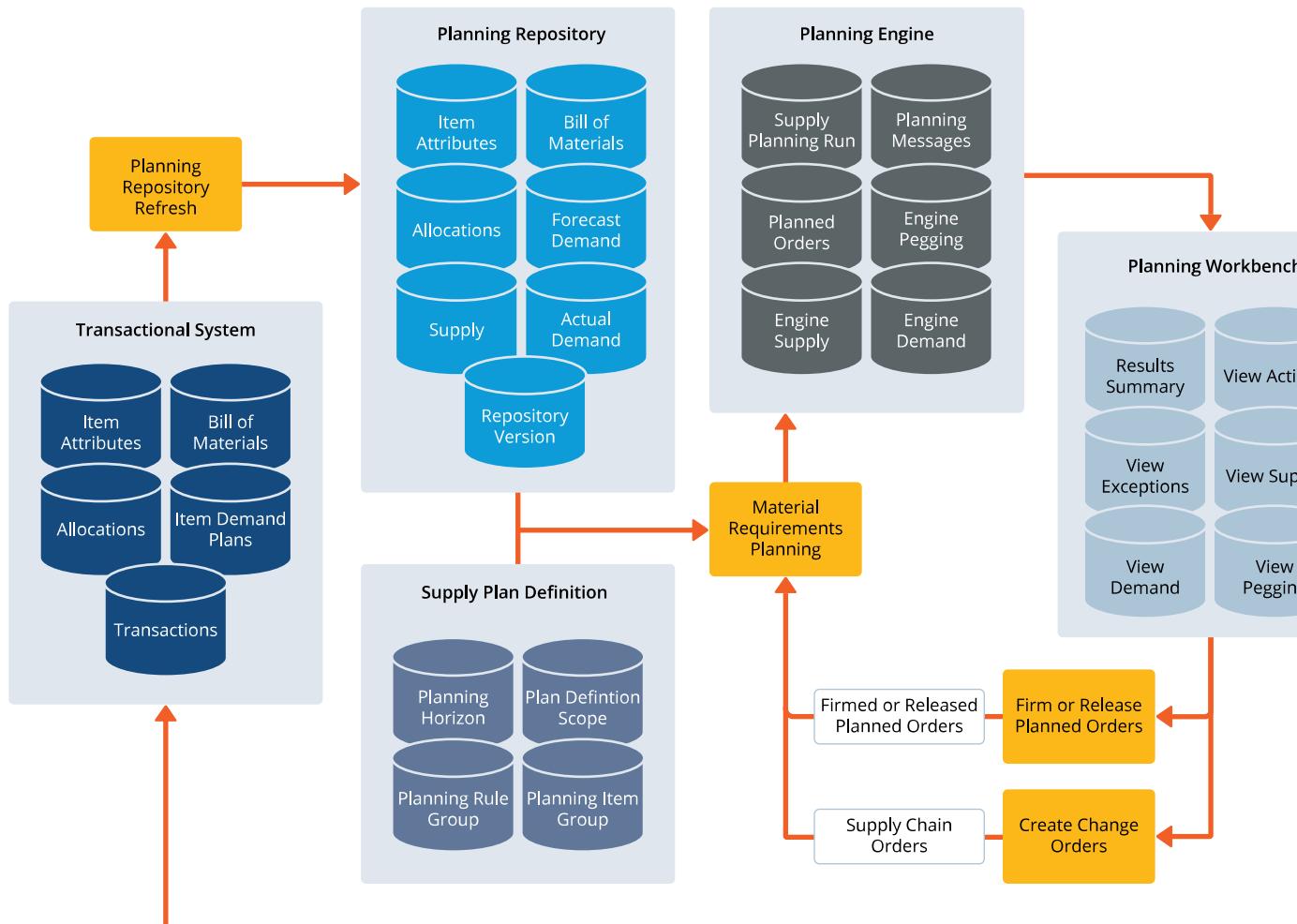
Supply planners can use NetSuite to establish the following criteria to create a supply plan:

- **Planning Horizon** – the number of days into the future the plan will cover. For example, if the plan start date is June 1 and the horizon is 30 days, the end date will be June.
- **Planning Scope** – the items and locations that are being considered for the plan and the associated demand source, or sources, for each location.

- **Planning Rules** – determine how transfer rules work for specific items and locations. These rules, essentially define your supply chain.

Supply Planning Overview

Supply Planning includes processes and steps that enable supply planners to balance supply and demand to achieve an organization's financial and service objectives. The following diagram represents the NetSuite Supply Planning process:



Transactional System

The NetSuite supply planning process starts when one, or a combination, of the following transactions is created or initiated:

- **Transactions** – a purchase order, transfer order, or work order. To learn more, see [T](#).

- **Item Demand Plan** – records the expected future demand for an item based on previous or projected demand. To learn more, see [I](#).
- **Allocation** – matches inventory supply sources to demand sources.
- **Bills of Materials** – lists the quantities of raw materials, assemblies, sub-components, and parts needed to manufacture a product. To learn more, see [B](#).
- **Item Attribute** – lists information about an item. For example, color, size, or length.

Planning Data Repository

To send the transactional information to the [Planning Repository](#), the planner refreshes the planning repository. The information is then copied into a new set of tables to provide data consistency and improve supply planning performance. Planners use this data in conjunction with the Supply Plan Definition to run the supply plan.

The Planning Repository stores related planning information that enables you to control how often NetSuite updates planning inputs. The repository refresh process accumulates the most up-to-date data from NetSuite to use for supply planning. The planning process calculates projected available quantity, generates supply orders, and action, and exception messages.

Supply Plan Definition

To establish supply planning criteria, planners use [Creating a Supply Planning Definition and Schedule](#). The plan definition provides the information that drives the scheduling process, such as planning horizon and planning scope. For example, you can run supply planning at multiple facilities at the same time.

The Planning Process

After the supply plan process is run, the system generates planning messages, planned orders, supply, demand, and [Pegging](#) information. This system generated information is presented in [Supply Planning Workbench](#).

The Planning Workbench

Planning process data is shown in the [Workbench Interface](#). Review action and exceptions messages that will help you to firm planned orders, release planned orders, create planned orders, and create new supply change orders. These records are then fed back into the supply plan for the planner to update and run supply plans.

Implementing Planned Orders

After the planner has firmed, released, or created change orders, they can implement planned orders from the existing transaction creation page. You can order items, mass create work orders, or replenish inventory by transfer orders to create the transactions.

Approving Change Orders

Finally, the planner goes to the new supply change orders record to approve change orders. This may change the dates on the transaction, reschedule in, reschedule out, or cancel the transaction.

Setting Up Supply Planning

To set up NetSuite Supply planning, you need to install or enable supply planning, and the supply planning workbench. After you have enabled the prerequisites, you can then setup an item for supply planning.

To set up supply planning:

1. Go to Setup > Company > Enable Features.
2. On the **Company** subtab, check the **Locations** box.
3. On the **Items & Inventory** subtab, check the following boxes:
 - **Multi-Location Inventory** – for the assembly item stock levels needed for the supply plan.
 - **Assembly Items** - to enable planning for manufactured items.
 - **Advanced Bills of Materials** - where component assembly items are stored to ensure that the assembly components are available.
 - **Work Orders** - the order that builds the assembly item must be included in the supply plan.
 - **Advanced Inventory Management** – to include reorder point and safety stock levels in the supply planning run.
 - **Material Requirements Planning** – to activate the supply planning feature.
4. Click **Save**.
5. Go to Setup > Accounting > Accounting Preferences.
 - a. On the **Order Management** subtab, check the **Allow Purchase of Assembly Items** box.
 - b. On the **Approval Routing** subtab, check the **Purchase Orders** box.
6. Click **Save**.
7. Go to Setup > Accounting > Inventory Management Preferences.
8. Check the **Use Lead Time and Safety Stock per Location** box.
9. Click **Save**.

To set up an item for a supply plan:

1. Go to Lists > Accounting > Items.
2. On the Items page beside the item record you want to add, click **Edit**.
3. Click the **Purchasing/Inventory** subtab.
4. In the Inventory Management section, **Replenishment Method** list, select **Material Requirements Planning**.
The new supply planning process will use this replenishment method.
5. Click **Save**.

Setting a Supply Planning Method

Enabling the Supply Planning feature ensures that the inventory management preferences are included during supply planning runs.

To set a supply planning method:

1. Go to Lists > Accounting > Items.
2. On the Items page beside the item where you want to enable supply planning, click **View**.
3. On the **Purchase/Inventory** subtab, click the **Component** Item you want to include in the plan.
4. On the **Locations** subtab beside the Location you want to plan for, click **Edit**.
5. On the Item Location Configuration page, click the **Planning** subtab.
 - a. The **Demand Source** is captured on the supply plan definition.
 - b. To show how stock is procured, select a **Supply Type**. For example, Purchase or Assembly.
 - c. If you selected fixed lot size as the lot sizing method, enter a quantity in the **Fixed Lot Size** field.
 - d. Select a **Supply Lot Sizing Method**:
 - **Lot For Lot** - suggests orders for procurement based on daily projections.
 - **Fixed Lot Size** - suggests orders for procurement based on a fixed amount or a multiple of the fixed amount.
 - **Periods of Supply** - generates aggregated purchase orders or work orders based on the overall demand requirements over a designated period. For example, such as weekly or monthly.

For more information, see [Demand Planning](#).

- e. In the **Period of Supply Increment** field, enter a number from 1 to 90. The default setting is 1.
- The increment starts on the first day an order is required. From that first day, NetSuite totals all orders incrementally. Orders are placed on the first day of the period.
- f. If you selected periods of supply as the lot sizing method, select a **Periods of Supply Type** option:
 - **Interval** - order aggregation starts when a requirement is established and continues for a fixed period defined in the Interval field. Interval is the default setting.
 - **Monthly** - order aggregation starts at the beginning of each month. The requirement date is always the first day of each month.
 - **Weekly** - order aggregation starts at the beginning of each week. The requirement date is always the first day of the week as defined under Company Settings.

Preferred Stock Level and **Reorder Point** are used for Reorder Point Planning.

- g. Enter your **Safety Stock Level**.
- The amount of an item you want to keep in stock for emergencies. For example, safety stock can be a specific quantity or several days worth of stock.

- h. Enter a **Purchase Lead Time**.

Lead time is the average number of days between the day you ordered an item to the day you received it.

If you have enabled the manufacturing routing associated with the assembly item, the following fields are displayed:

- **Work Order Fixed Lead Time** - enter the lead time needed to back schedule production to determine the start date. For example, if the level lead time is three days, schedule your lead time to three days before delivery date.
 - **Work Order Variable Lead Time** - enter the lead time per unit to back schedule to determine the production start date.
- i. To review planning times, click the **Planning Times** subtab:
 - **Late Period Days** - how far into the past the process will look for late transactions.

- **Firm/Release Advance Warning Threshold** – how far in advance you are notified when a planned order is approaching a lead time or a time fence.
- **High Impact Late Demand Threshold** – the number of days in advance you want to be notified for high impact late demand planned orders.
- **Backward Consumption Days** - the number of days after the order date to consider.
- **Foreword Consumption Days** - the number of days prior to the order date to consider.
- **Demand Time Fence** – defaults to the number entered in the Default Demand Time Fence field.
Accept the default or enter a number between zero and 365 to determine the demand time fence for this item.
- **Planning Time Fence** - defaults to the number entered in the Default Planning Time Fence field.
Accept the default or enter a number between zero and 365 to determine the planning time fence for this item.
- **Reschedule in Days** – enter a number between one and 90. This number represents the maximum number of days that the order can be advanced from the current day.
For example, if you enter 10 in this field, an order for this item can be moved up ten days earlier.
- **Reschedule out Days** - enter a number between one and 180. This number represents the maximum number of days that an order can be delayed from the current day.
For example, if you enter 10 in this field, an order for this item can be moved to ten days later.
- In the **Minimum Reschedule Days** field, enter the number of days.
- **Reschedule Horizon** - How far the system will scan for reschedule opportunities.

6. Click **Save**.

Supply Planning Prerequisites

Supply Planning enables you to create supply plans. A supply plan details when to buy and manufacture items to fulfill demand. This information is displayed on the supply planning workbench. The supply plan accounts for multiple items across multiple locations by subsidiary.

Supply Planning enables you to create multiple plans. Plan definition rules enable you to create output based on the rule definition.

Before you can build a supply plan, complete the following prerequisites activities:

- [Creating Planning Item Categories to an Item](#)
- [Creating Planning Item Groups](#)
- [Creating Planning Rule Groups](#)
- [Creating a Supply Planning Definition and Schedule](#)
- [Planning Repository](#)
- [Supply Planning Process](#)

Creating Planning Item Categories to an Item

Planning item categories help you to organize and display items in a hierarchy. Due to the volume of data involved in supply planning, this hierarchy helps you to more easily assemble and inspect items.

To create a planning category to an item:

1. Go to Lists > Supply Planning > Planning Item Categories > New.
2. Enter a planning item category **Name**.
3. Enter a planning item category **Description**.
4. Click **Save**.

Planning Repository

The Planning Repository stores related planning information that enables you to control how often NetSuite updates planning inputs. The repository refresh process accumulates the most up-to-date data from NetSuite to use for supply planning. The planning process calculates projected available quantity, generates supply orders, and action and exception messages.

This extraction process offers the following advantages:

- Enables planners to control the timing of the input coming from the execution system.
- Optimizes the data repository that supply planning depends on.
- Integrates with other manufacturing and logistics execution solutions.
- Provides a time consistent view of supply and demand during a supply planning run.
- Provides a time consistent view of supply and demand for the planner to refer to while resolving issues and doing analysis.

This process runs in the background to update the planning data repository which stores data for the supply planning run on the supply plan. It selects all items containing the supply plan setup on the replenishment method field on the item record.

Creating a Refresh Planning Repository Schedule

The Refresh Planning Repository feature enables you to create a new planning repository schedule and review existing schedules. After refreshing the planning repository schedule, you can run one or more plans and launch a plan immediately after the refresh completes.

To create a refresh planning repository schedule:

1. Go to Transactions > Supply Planning > Refresh Planning Repository > Schedule.
2. In the **Transfer Type** section, select a refresh option:
 - **Complete Refresh** – to purge data from the repository and reload all item setup data and transactions for the supply plan.
 - **Net Change** – to reload data that has changed since the last repository refresh.
3. If you selected a net-change transfer type, select a **Refresh Option**:
 - **Item Setup** – when you have changed planning times or lead times but do not want the transactions to change.
 - **Item Setup and Transactions** – to bring in only transactions within the defined date range.
4. Enter a **Date Range**:
 - **Date From** – the start date for the item setup and transactions date range.
 - **Date To** – the end date for the item setup and transactions date range.
5. (Optional) Select the **Supply Plan Definition** you want to launch after you have successfully refreshed the repository.

6. Enter **Schedule** parameters:
 - a. Enter a schedule **Name**.
 - b. To set the **Next Date** you want the repository to run, click on the calendar icon next to the field and then select a date.
 - c. Enter the **Next Time** you want the repository to run. To view the results the next day, you can schedule the process to run overnight.
 - d. Select a **Recurrence Frequency**. This represents how often the repository will run.
 - e. Select a **Repeat Every** number. For example, if you select 1 and the recurrence frequency is daily, the repository will run every day.
 - f. If this schedule has an end date, beside the **End Recurrence On** field, click the calendar icon and then select a date.
 - g. To disable this schedule, check the **Inactive** box.
7. Click **Save**.

Viewing the Planning Repository Event Log

The Planning Repository Initialization process searches for items tied to the plan to search for item location configuration records. If no records are found, the system automatically creates them.

The Planning Repository Event Log displays the status of the data repository process. After the data repository refresh process completes, the event log displays the initialization line and the refresh lines.

To view the planning repository event log:

1. Go to Transactions > Supply Planning > Refresh Planning Repository > Event Log.
2. To filter the event log results, open the **Filters** and adjust the event log date.
3. Click **Refresh**.

For more information, see [Planning Repository](#).

To navigate to the Planning Workbench, beside the **Supply Plan Definition** you want to see, click the link in the **Planning Workbench** column.

Supply Planning Process

Supply Planning uses information from Manufacturing and the Logistics Data Repository. This helps the system to determine which component items are required to produce items defined in the schedule. The supply plan produces planned orders, planning suggestions, and supply planning exceptions.

Supply Planning enables planners to view the impact of changes made in the supply planning workbench without re-running the planning process for all data. This is useful when only a subset of the data has changed.

The following list describes the supply planning process:

1. Create a snapshot containing planning input from the manufacturing and logistics data repository.
A snapshot records the inputs at the time of the planning run. Snapshots provide a lasting view of the information that is used for reporting, comparison, and more.
2. Use demand for items defined in the supply plan with the planning bills of materials (BOM) to determine the gross requirements for the components.
You can also use the on-hand inventory information, quantities on-order, and firm planned orders, and net gross component requirements.

3. Delete existing planned orders for the items and organizations within the plan definition. Firm planned orders are not deleted or rescheduled, they are considered part of the netting process.
4. Use the BOM hierarchy, lot-size information, and component lead-times to offset the start dates for ordering the components. Create planned orders for each component.
5. Use the item definition and planning rules to determine which planned order type to create: purchase order, work order, or transfer order.
6. Quantities on order (purchase or work order) are considered during the process. Changes to reschedule in, reschedule out, or cancellation are suggested to fulfill the current net requirements.
7. When the system evaluates independent demand, it reviews the rescheduled and canceled purchase and work orders suggested by the supply plan.
8. Use planning rules to determine item sourcing when creating planned orders.
9. Trace the pegging information for each planned order and then store the results.
10. The planner produces planning suggestions using the supply planning work bench.
11. Produce exceptions noted during the supply planning process.



Note: Some components can be the child of more than one assembly and could also be a service part.

Creating Planning Item Groups

Planners want to specify which items are in a plan at the item category or item level. A planning item group provides a reusable (across different plans) method for specifying a set of items to be planned together.

To create a planning item group:

1. Go to Lists > Supply Planning > Planning Item Groups > New > New.
2. Enter a planning item group **Name**.
3. Enter a **Description** of the planning item group.
4. In the Planning Items subtab, select an **Item Type**.
Select an item type to track and manage the items and services your company buys and sells in the course of doing business.
5. Select an **Item/Category**.
The related item description is automatically displayed.
To clear your entries, click the **Undo** (icon).
6. Click **Save**.

Creating Planning Rule Groups

Planning Rule Groups enable planners to create rules to govern the supply planning process and define how items and item categories are replenished. For example, you can define where to source supply for an item when it is required at a specified location. You can only apply these rules to transfer orders.

To create a planning rule group:

1. Go to Lists > Supply Planning > Planning Rules Group > New > New.
2. Enter a planning rules group **Name**.

3. Enter a planning rules group **Description**.
4. In the Planning Rule subtab, select an **Item Type**.
5. Select an **Item/Category**.
If available, the related item **Description** is automatically displayed.
6. Select a **Location**.
The default **Action** is **Transfer** (transfer order).
7. Select a **Source Location**.
This is the location you are transferring items from.
8. Enter **Lead Time in Days**.
Lead-time represents the in-transit lead-time, or how long it takes to ship the item from its source location.
To clear your entries, click the **Undo** () icon.
9. Click **Save**.

Upgrade Supply Planning to Material Requirements Planning and Master Production Schedule

This section is for administrators who upgrade existing Supply Planning accounts to the Material Requirements Planning (MRP) and Master Production Schedule (MPS) features. Material Requirements Planning helps production managers schedule and place orders for items that depend on demand. The Master Production Schedule helps you plan when and how much of an item will need to be produced.

To upgrade to the current version, complete the following required and optional setup procedures:

- [Enabling Supply Planning Features](#)
- [Setting Supply Planning Preferences](#)
- [Setting Up Required Items](#)
- [Setting Up Optional Items](#)
- [Defining Demand Definitions](#)
- [Setting Up Distribution Resource Planning](#)
- [Supply Planning Parameters](#)

Material Requirements Planning and Master Production Schedule provide several benefits that help organizations that need to procure and build material resources for sale. Some of these benefits are:

- Improved performance
- Enhanced visibility with the supply planning workbench
- Limits removed for the number of items
For example, the length of planning horizon.
- Plan across multiple locations

This supply planning solution provides several Item and Item Location parameters. These parameters include:

- **Work Order Fixed Lead Time** – Fixed period for calculating work order lead-time.
- **Work Order Variable lead Time** – Variable period by unit for calculating work order lead-time.
- **Work Order Lead Time Lot Size** - Lot size for calculating work order lead-time.
- **Late Period Days** - Number of past days the system can search for past due orders.

- **Reschedule Horizon** - Number of days from today the system can scan for future rescheduling opportunities.
- **Minimum Reschedule Days** - Number of days the system will reschedule an order (in or out) from its current period.
- **Past Due Forecast Days** - Number of days in the past the system will search for overdue unconsumed forecast.
- **High Impact Late Demand Threshold** - Threshold for highlighting late demand as high impact in the workbench.
- **Firm/Release Advance Warning** – Threshold used by the system to determine when a warning message should be generated.

Enabling Supply Planning Features

To begin the upgrade process, enable the following Supply Planning features. If you use a previous supply planning version, some of these features may already be enabled.

To enable supply planning features:

1. Go to Setup > Company > Enable Features.
2. On the **Company** subtab, check the **Locations** box.
3. On the **Items & Inventory** subtab, check the following boxes:
 - **Multi-Location Inventory**
 - **Advanced Inventory Management**
 - **Material Requirements Planning**
4. If you use NetSuite Manufacturing, check the following boxes:
 - **Assembly Items**
 - **Advanced Bills of Materials**
 - **Work Orders**
5. Click **Save**.

For more information, see [Setting Up Supply Planning](#).

Setting Supply Planning Preferences

After you enable the required features, set the following preferences to ensure that NetSuite MRP and MPS are optimized.

To set supply planning preferences:

1. Go to Setup > Accounting > Inventory Management Preferences.
2. To enter lead time on the item record, check the **Use Lead Time Per Location and Safety Stock per Location** box.
This preference allows the system to calculate the MRP work start date.
3. Click **Save**.
4. Go to Setup > Accounting > Accounting Preferences.
5. On the **Approval Routing** subtab, check the **Purchase Orders** box.
6. Click the **Order Management** subtab.
7. In the Purchasing section, check the **Allow Purchase of Assembly Items** box.

8. In the Supply Change Order Status section, select a **Default Supply Change Order Status**.
9. Click **Save**.

For more information, see [Setting Up Supply Planning](#).

Setting Up Required Items

Many of the parameters used in previous versions of supply planning are also used in material requirements planning. To set up supply planning items for the upgrade to the latest version, complete the following item setup procedure.

To set up an item for a supply plan:

1. Go to Lists > Mass Update > Mass Updates.
2. On the Mass Updates page, click **General Updates**.
3. Click **Inventory Item**.
4. On the Mass Update page, click the **Mass Update Fields** subtab.
5. Check the **Replenishment Method** box.
6. Beside the **Replenishment Method** box, in the **Replenishment Method** list, select **Material Requirements Planning**.
7. Click **Perform Update**.
8. To set up an item for Assembly Items, repeat steps 3 to 7. In step 3, click **Assembly Items** instead of **Inventory Items**.

For more information, see the help topic [Defining a Mass Update](#).

You can automatically assign a planning item category, a replenishment method, and item parameters using the following features:

- [Defining a Mass Update](#)
- [Importing CSV Files with the Import Assistant](#)
- [Supply Plan Definition](#)

Setting Up Optional Items

If you use optional items the following procedures will help make your supply planning upgrade more complete.

To set up items for a supply plan:

1. Go to Lists > Accounting > Items.
2. In the Items window, beside the item record you want to add, click **Edit**.
3. Click the **Purchasing/Inventory** subtab.
4. In the **Replenishment Method** list, select **Material Requirements Planning** or **Master Production Schedule**.
5. Select a **Planning Item Category**.
6. Click **Save**.

For more information, see the help topic [Entering Inventory Management Details](#).

To create a planning item category:

1. Go to Lists > Supply Planning > Planning Item Categories > New.
2. In the **Name** field, enter a planning item category .
3. In the **Description** field, enter a planning item category .
4. Click **Save**.

For more information, see [Supply Planning Prerequisites](#).

To create a planning item group:

1. Go to Lists > Supply Planning > Planning Item Groups > New.
2. In the **Name** field, enter a planning item group.
3. In the **Description** field, enter a planning item group.
4. On the **Planning Items** subtab, select an **Item Type**.

This item type helps you to track and manage the items and services your company buys and sells.

5. Select an **Item/Item Category**.
6. Click **Save**.

For more information, see [Supply Planning Prerequisites](#).

Defining Demand Definitions

The Supply Plan Definition feature enables you to establish supply planning criteria. To perform MRP calculations, you need to define a list of planning parameters as a plan definition.

To create a supply plan definition:

1. Go to Transaction > Supply Planning > Supply Plan Definitions > New.
2. Enter the Supply Plan Definition **Name**.
3. To define how transfer orders work for the plan, select a **Planning Rule Group**.
4. To define how far into the future you want to plan, enter a planning **Horizon (in Days)**. For example, 180 days.
5. To specify a set of items you want in the same plan, select a **Planning Item Group**.
6. Enter a supply plan definition **Description**.
7. To enable pegging, check the **Generate Pegging** box.
8. On the **Scope** subtab, select the **Location** you want to include in this plan.
9. For each location, select a **Demand Source Type**.
10. If sales orders and demand plans are used as demand, check the **Forecast Consumption** box.
11. Click **Save**.

For more information, see [Creating a Supply Planning Definition and Schedule](#).

Setting Up Distribution Resource Planning

If you use Distribution Resource Planning (DRP) and want to use NetSuite Supply Planning, you must set up transfer planning rules. Transfer rules are used in place of a distribution network to define how the system creates transfer orders.

To set up transfer rules:

1. Go to Lists > Supply Planning > Planning Rule Groups > New.

2. Enter a planning rules group **Name**.
3. Enter a planning rules group **Description**.
4. On the **Planning Rule** subtab, select an **Item Type**.
5. Select an **Item/Category**.
6. Select a **Location**.
7. Select a **Source Location**.

The location you are transferring items from.

8. Enter **Lead Time in Days**.

Lead time represents the in-transit lead time, or how long it takes to ship the item from its source location.

9. Click **Save**.

For more information, see [Supply Planning Process](#).

Supply Planning Parameters

The following tables describe the fields available in the current supply planning solution with those used in the previous supply planning solution.

Current Parameters

Parameters	Description	Required?
Work Order Fixed Lead Time	Fixed lead time for calculating work order lead-time.	No
Work Order Variable Lead Time	Variable lead time per unit for calculating work order lead time.	No
Work Order Lead Time Size	Lot size for calculating work order lead time.	No
Late Period Days	Number of days into the past the supply planning process looks for past due orders.	No
Reschedule Horizon	The maximum number of days from the current day that the supply planning process searches in the future for rescheduling opportunities.	No
Minimum Reschedule Days	The minimum number of days the supply planning process reschedules a supply order from its current period.	No
Past Due Forecast Days	The number of days into the past the supply planning process will search for past due unconsumed forecast.	No
High Impact Late Demand Threshold	Defines a threshold for highlighting late demand in the workbench as high impact.	No
Firm/Release Advance Warning Threshold	Defines a threshold used by the supply planning process to determine when a warning message should be generated for a planned order.	No

Parameters Available in Previous and Current Versions

Parameters	Description	Required?
Supply Type	How stock is procured, either Purchase or Assembly. If Allow Purchase of Assembly Items is enabled on	For locations without transfer rules. Ensures the supply planning

Parameters	Description	Required?
	assembly items, you can build or purchase additional supply.	replenishment process works correctly.
Supply Lot Sizing Method	Select Lot for Lot, Fixed Lot Size, or Periods of Supply.	Defaults to Lot for Lot.
Fixed Lot Size	If Fixed Lot Size is the lot sizing method, enter a Fixed Lot Size quantity. Item procurement quantity is based on demand projections.	If Lot Sizing Method is Fixed Lot Size.
Periods of Supply Type	To aggregate supply, select one Interval, Monthly, or Weekly.	If Lot Sizing Method is Periods of Supply.
Periods of Supply Increment	Defines the period for aggregating supply when Periods of Supply Type is the Interval.	If Periods of Supply Type is Interval.
Safety Stock Level	The quantity of product kept in stock to meet demand fluctuations.	No
Purchase Lead Time	The average number of days between ordering this item from the vendor and receiving it.	No
Backward Consumption Days	Number of days prior to the order date to consider as the forecast consumption window.	No
Forward Consumption Days	Number of days after the order date to consider as the forecast consumption window.	No
Demand Time Fence	Defaults to Default Demand Time Fence. Sets time between the horizon start and the demand time fence where only sales orders are considered.	No
Planning Time Fence	Defaults to Default Planning Time Fence. Sets time between the horizon start and the planning time fence. Supply Planning does not suggest new planned orders or reschedule or cancel existing supply orders.	No
Reschedule In Days	Enter a number between one and 90. The maximum number of days the order can be advanced from the current day.	No
Reschedule Out Days	Enter a number between one and 180. The maximum number of days that the order can be delayed from the current day.	No

Creating a Supply Planning Definition and Schedule

The Supply Plan Definition feature enables planners to establish supply planning criteria. The plan definition provides the information that drives the supply planning process, such as planning horizon and planning scope. For example, you can run a single supply plan at multiple facilities at the same time. A supply plan definition provides a permanent holding place for your planning criteria and planning results.

Creating a Supply Planning Definition and Schedule

A supply planning definition enables you to do the following:

- Define and save supply planning criteria, such as planning horizon, items, locations, and planning rules.
- Compare multiple supply plans.

- Refer to plan output for integration.
- Copy a plan and modify its criteria to use for a "what-if" analysis.

A supply plan offers the following benefits:

- Enables planner to create multiple plans:
 - By product line
 - For "what-if" analysis
- Provides control over items, locations, and associated demand sources for the plan.
- Enables planners to launch a supply plan for processing.

To create a supply plan definition:

1. Go to Transactions > Supply Planning > Supply Plan Definitions > New.
2. Enter a supply plan definition **Name**.
3. To define how transfer orders work for the plan, select a **Planning Rules Group**.
4. To define how far into the future are you want to plan, enter a **Horizon (in Days)**. For example, 180 days.
Horizon start date and end date are calculated based on the current date and the horizon days when the planning process runs.
The planning process will only consider demand plans for a period that is within the horizon.
5. To specify a set of items you want to plan together, select a **Planning Items Group**.
You can use a single group for multiple plans.
6. Enter a supply plan definition **Description**.
7. To enable pegging, check the **Generate Pegging** box.
Clear the box to disable pegging. This can reduce processing time.
8. Click the **Scope** subtab.
 - a. Select a **Location**.
 - b. Select a **Demand Source Type** for the selected location .
For example, demand plans, sales orders, or sales orders and demand source plans.
 - c. Optionally, check the **Consume Forecast** box.
Forecast consumption replaces forecasted demand with sales order demand. Each time you create a sales order line, you create demand. If the demand is already forecasted, the forecast demand must be reduced by the sales order quantity to avoid recounting the same demand.
 - d. To clear your entries, click the **Undo** () icon.
9. Click **Save**.

After you set up a new supply plan definition record, added rules, defined scope, and identified planned items, click **Launch** to launch the record.

The Supply Planning Event Log displays the latest supply planning results.

After the initialization process runs and you have identified your batches, the supply planning process is initiated.

To create a supply plan definition schedule:

1. Go to Transactions > Supply Planning > Supply Plan Definitions > Schedule.
2. Click **New Supply Plan Schedule**.
3. Enter a supply plan definition schedule **Name**.
4. Enter the Supply **Plan Definition** you want to create this schedule for.
5. To select the next date you want to run this supply plan definition schedule, beside the **Next Date** field, click the calendar icon.
6. Enter the **Next Time** you want to run this supply plan definition schedule.
7. In the **Recurrence Frequency** field, set how often you want this supply plan definition schedule to run.
8. If you selected a weekly or monthly recurrence frequency, in the **Repeat Every** field, select how often this supply plan definition schedule should run.
9. If this schedule has an end date, beside the **End Recurrence On** field, click the calendar icon and then select an end recurrence date.
10. If you do not want to make the supply plan definition schedule active right away, check the **Inactive** box.
11. Click **Save**.

Default Supply Planning Workbench View

You can set a default workbench view for a plan definition. This workbench view will then be applied each time you enter the workbench.

To define a default supply planning definitions

1. Go to Transactions > Supply Planning > Supply Definitions.
2. Beside the Supply Definition you want to create a workbench view for, click **Edit**.
3. In Supply Plan Definition, select a **Planning Workbench View**.
For example, US Vendor.
4. Click **Save**.

Supply Planning Event Log

After launching the supply plan definition, the Supply Planning Event Log appears. The event log displays any errors encountered during the planning process run. The log also contains a link to the [Supply Planning Workbench](#).

The supply planning event log displays the following columns:

- **Submission ID** – the identification number for event.
- **Process Type** – for example, Materials Requirements Planning or Planning Repository Refresh.
- **Supply Plan Definition** – the plan definition name displays a link to the plan definition.
- **Submission Status** - indicates whether the supply plan was completely submitted for processing.

Click the link (status or plan generation) to open the processed items window to view the items included in the supply plan.

- **Percent Complete** - displays how complete, in percentage, that the supply plan has been processed.
- **Message** - indicates the number of errors encountered during processing. Click the link to open the message.

- **Date Created** – the date the supply plan was launched.
- **Horizon in Days** – the number of days in the supply plan horizon.
- **Created By** – the name of the planner who created this plan.
- **Repository Refresh Date** – the date the planning data repository was updated.
- **Planning Workbench** – click the **View Results** link to display the Supply Planning Workbench.

Supply Planning Workbench

The Supply Planning Workbench enables planners to view information supply and demand orders within the supply plan. After reviewing the results, you can then take action to adjust your supply plan to ensure that customers receive their orders complete and on time. The workbench essentially helps to guides planners on how they will execute their supply plans.



To access the Supply Planning Workbench:

1. Go to Transactions > Supply Planning > Supply Planning Definitions.
Alternatively you can go to Transactions > Supply Planning > Event Log.
2. Beside the supply plan you want to view, in the Planning Workbench column, click **View Results**.

The workbench displays the following information:

- How demand and supply orders align to their due dates.
- Inventory levels for all items used by your organization.
- Any issues that could delay the demand order schedule.

This enables planners to respond when important supply orders are in danger of not meeting demand orders.

- Possible actions from processing planned orders to processing supply orders.

The Supply Planning Workbench offers the following benefits:

- Review, modify, create, and release planned orders.
- Release reschedule in/out and cancel supply order suggestions.
- Flexible search and browse capability for reviewing planning results.
- Create summary pages by item and location, or across all items and locations. This enables you to drill-down into the numbers and through hierarchical pegging.

Creating a Planning Workbench View

NetSuite Supply Planning enables you to create a Planning Workbench View which can consist of pre-set filters and an embedded item saved search. The item saved search can include item-related criteria, such as item location and preferred supplier.

You can apply pre-set filters to the workbench when a default Planning Workbench View has been selected for the plan definition, or when a Planning Workbench View is selected from within the workbench. However, you do not need to enter a value for every filter.

To create a planning workbench view:

1. Go to Lists > Supply Planning > Planning Workbench Views.

2. Enter a planning workbench view **Name**.
For example, Purchasing View or Scheduling View.
3. Select an Item Criteria **Saved Search**.
For example, Preferred Vendor.
To learn more, see the help topic [Step 2 Create the Saved Search](#).
4. Complete the **Preset Filters** section:
 - a. Select a **Replenishment Method**.
For example, MPS or MRP.
 - b. Select an **Action Type**.
 - c. Select a **Planning Item Category**.
 - d. Select an **Exception Type**.
 - e. Select an **Item**.
 - f. Select the **Supply Type** you want to use to filter the workbench view.
For example, Planned Purchase Order or Purchase Order.
 - g. Enter the **Relative End Date (Days)** to display a specific amount of the planning horizon (instead of the entire horizon).
 - h. Select a **Demand Type**.
5. Click **Save**.

Creating a Preferred Vendor Saved Search

To view all planning data for a supplier, NetSuite enables you to filter the planning workbench by preferred supplier. This update allows you to create your own custom item filters. However, you do not need to enter a value for every filter.

To learn more, see the help topic [Step 2 Create the Saved Search](#).

To create a preferred vendor saved search:

1. Go to Lists > Search > Saved Search > New.
2. On the **New Saved Search** page, click **Item**.
3. Enter a **Search Title**.
For example, US Preferred Vendor Saved Search.
4. Check the **Available as List View** box.
5. Check the **Available as Dashboard View** box.
6. In the **Criteria** subtab, **Filter** list, select **Preferred Vendor**.
7. In the **Saved Item Search** pop-up window, select a Preferred Vendor.
8. Click **Set**.
9. Click **Save**.

To use a preferred vendor search in the planning workbench view:

1. In the Planning Workbench View, enter a Planning Workbench View **Name**.
2. Select a **Saved Search**.

For example, US Vendor Saved Search.

3. Select the **Supply Type** you want to use to filter to the workbench view.

For example, Planned Purchase Order and Purchase Order.

4. Enter the **Relative End Date (Days)** to display a specific amount of the planning horizon (instead of entire horizon).

5. Click **Save**.

The preferred vendor is displayed in the supply detail panel source column of the for purchasing related transactions.

Filtering the Workbench by Preferred Vendor

After creating a preferred vendor saved search, you can use it to filter the Planning Workbench by vendor. The following procedures describe scenarios where all fields are completed. You can select any field, or combination of fields to filter your workbench view.

To filter the workbench by preferred vendor:

1. In the **Planning Workbench, Item Filters** section, select a **Planning Workbench View**.

For example, US Vendor View.

2. In the message box, click **OK**.

The filters associated with the saved search are displayed. For example, your Supply Type could be Planned Purchase Order and Purchase Order.

3. In the **Results Summary**, click the item type.

4. To return to unfiltered Planning Workbench view, click the refresh icon (↻).

To change a preferred vendor:

1. In the **Saved Item Search, Criteria** subtab, select the Saved Search. For example, Preferred Vendor.

2. In the **Saved Item Search** pop-up window, select the new preferred vendor.

3. Click **Set**.

4. **Save the Item Search**.

5. **Save the Planning Workbench View**.

6. Refresh the **Planning Workbench View Item Filter**.

The Source column displays the new preferred vendor.

Workbench Interface

This section describes how the supply planning workbench is organized and the functionality available within the workbench.

- [The Top Panel](#)
- [Item Filters](#)
- [Message/Order Filters](#)
- [Results Summary](#)

The Top Panel

- **Supply Plan Definition** – the supply plan name. Click the link to open the Supply Plan Definition page. See [Creating a Supply Planning Definition and Schedule](#).
- **Planning Horizon** – the date range for the supply plan.
 - **Start Date** – the date the supply plan was launched. Planning horizon is set to start date by default.
 - **End Date** – calculated by adding the number of days defined on the supply plan definition horizon field to the start date.
- **Repository Refreshed** – the date the repository was updated.
- **Results Generated** – the date the supply plan was launched to generate the results.
- **Date Range** – the planner can change the end date to filter the information displayed on the workbench.

You cannot edit the start date or select an end date beyond the default end date (the end of the planning horizon).
- **Plan List** – click the link to open the supply plan list.
- **Event Log** – click the link to open the supply planning event log.

Item Filters

Select item filters to display a more refined set of planning results. To display the data you want to view, select one or a combination of the available filter criteria.

- To move inventory, select a **Replenishment Method**:
 - **Material Production Schedule** – to determine when the materials will be used to produce an item.
 - **Material Requirements Planning** – to define the quantity of materials to order.
 - **Reorder Point** – to order items when available quantity drops below the safety stock threshold.
 - **Time Phased** – to schedule material orders in a timed interval.
- **Planning Item Category** – created by your organization. Select an item category to display the categories in the results summary.

For example, planning item categories represent component, premium, product, standard product, or subassembly items.
- **Item** – filter results by item.

As you type, suggested items appear that match what you have entered. Click the name to display the item.
- **All Locations** – are displayed by default and grouped by subsidiary. All locations represent an aggregate view of all items across all locations.
- **Parent** – select a specific location to view supply changes affect that location.

For example, select the Detroit Manufacturing facility to display all items for only that location.

Message/Order Filters

You can filter workbench results by selecting one, or a combination of, the Action, Exception, Supply, or Demand Type filters. The corresponding results summary section message and order columns are updated. You can access all message/action filters from the results summary.

You can filter the supply planning workbench by selecting a pre-defined message or messages from one, or a combination of the order types. For more information, see the following topics.

- Working With the Action Tab
- Exception Tab
- Working With the Supply Tab
- Creating a Planned Order
- Demand Tab

After you select a message, or messages, they are displayed as a tag in its filter type field.

After you select multiple messages, and then click the message list, the selected messages are highlighted.

To show only the selected filters, check the **View Selected** box.

Working With the Action Tab

The Action tab displays system generated recommendations that you can help you to respond to supply plan challenges. You can open the Action tab, for all items or individual items.

To display the action tab:

1. In the Results Summary, find the item that has actions you want to view.
2. Go to the **Message/Order Counts** column, **Action** sub column.
3. Beside the item, click the **Action** number link.

The following list describes the **Action** tab and its features:

- **Action** – describes the action suggested by the supply planning process. For example, “consider releasing proposed planned order before 06/07/2021 because it is nearing its lead-time threshold.” After you select an **Action** column, the focus () image appears in the column header.
- **Change Order** – displays the suggested action status.
- **Date** – the transaction due date.
- **Item Name** – the name of the item.
- **Location** – the location the suggested action applies to.
- **Quantity** – the quantity of items.
- **Units** – this column appears if units of measure are enabled. Units of measure describes how the item is measured.
- **All Items** - displays all the items for the selected filter. Displaying all items (aggregate view) enables you to review all their data in one location.

To process suggested actions:

1. In the **Action** tab, check the box beside the suggested action, or actions, you want to process. To select all actions, select the box beside the **Action** header.
2. Click **Perform Selected Action**.
3. Click **OK**.
4. In the **Status** box, click the link to open Planning Workbench Event Log.
5. Click **Refresh**.

The completed and display only change order appears.

Click the **Change Order** link to display the change order.

To process all suggested actions for all pages:

1. Point to the **Perform Selected Actions** button.
 2. Click the **Perform All Actions** option.
 3. Click **OK**.
- A confirmation message appears stating that records have been submitted for processing. The message contains a link to the status page.
4. To review the status of processed and submitted actions, click the **Status** page link to open the planning workbench event log.
 5. To view successfully processed actions, beside **Perform Selected Actions**, click **Refresh**.

Click **Return to Summary** to open the **Results Summary**.

Exception Tab

All challenges to the supply plan are listed on the display only Exceptions tab. These challenges are called exceptions because the supply plan process estimates that no action to these orders will support demand.

The Exceptions tab displays the following columns:

- **Exception** – the exception message text.
For example, "Insufficient lead time for proposed Planned Purchase Order scheduled for 06/07/2020 by 1 day(s)."
- **Date** – the due date of the exception alert record.
- **Item** – the item ID or item name impacted by the exception message.
- **Location** – the location where the affected item is stored.
- **Quantity** – the number of items.
- **UOM** – if units of measure is enabled, this column displays how the item is measured.

Click **Return to Summary** to open the **Results Summary**.

Working With the Supply Tab

The Supply tab displays all the supply order information within the supply plan. NetSuite defines supply orders as purchase orders, work orders, and transfer orders. The supply tab enables you to create and release different planned orders.

The supply tab displays newly generated planned orders, unfirmed and unreleased, and any firmed or released orders. These orders were brought back into the plan from previous supply planning process runs.

The supply tab displays the following columns and features:

- **Supply** – planned purchase orders, work orders, or transfer orders.
After you select an Action column, the focus () image appears in the column header.
- **Pegging** – Click the pegging icon () to display how supply and demand orders are connected from a supply perspective. For more information, see [Pegging](#).
- **Start and End Dates** – the expected receipt dates for purchase and transfer orders.

- **Firm** – check the Firm box to firm an order. Firmed orders remain in the supply plan and are not erased when the supply planning process is run. Non-firmed orders will be deleted when the process is run.
- **Item** – the item name or identification number.
- **Location** – the item location ID.
- **Source** – the item source location (transfer order) ID.
- **Quantity** – the number of items.
- **UOM** – if units of measure is enabled, this column displays how the item is measured.

Click [Return to Summary](#) to open the [Results Summary](#).

After you've set the rescheduling parameters are set (reschedule horizon, reschedule in days and reschedule out days) the planning process could cancel or reschedule supply transactions unless supply is not firmed. Consequently, the supplies will be moved to the defined period to be rescheduled or ignored if the process suggested they be cancelled in the Planning Workbench.

In the Planning Workbench Action tab, you can see the original end date and the new target end date. To initiate these suggested actions, clicking the Perform Selected Action button to create the Supply Change Orders.

If the supplies are firmed, the planning process still could canceling or reschedule supplies. The process does not retain the original dates. You will still see the suggested actions in the Action tab but they are not available for submission. You will need to submit them manually.

To firm an order:

1. Beside the order, or orders you want to firm, check the **Firm** box.
2. To review the order, click the order link.
The planned order window opens displaying a Firmed status.
You can also open the planning workbench event log to verify that the order is firmed.
3. Click **Save**.

To release a selected order:

1. Beside the unreleased planned order, or orders you want to release, check the box.
2. Click **Release Selected Orders**.
3. In the confirmation message, click **OK**.
A confirmation message appears stating that records have been submitted for processing. This message contains a link to the status page.
4. To review the status of processed and submitted/planned orders, click the **Status** page.
5. In the **Planning Workbench Event Log**, you can review the order status.
After you refresh the planned order record, the status is Released.

To release all planned orders:

1. In the Results Summary, click the **All Items Supply** number link.
2. Hover over **Release Selected Orders**.
3. Click the **Release All Orders**.
4. In the confirmation message, click **OK**.

A confirmation message appears stating that records have been submitted for processing. The message contains a link to the status page.

5. To review the status of processed and submitted/planned orders, click the **Status** page link to open the planning workbench event log page.
6. To display orders that were successfully processed, beside the **Create Planned Order** button, click **Refresh**.

Integrating Action Messages

After rescheduled or cancelled messages are released, the supply planning process generates action messages. The planner can release an action, and the system may require a secondary level of approval. For example, if an existing purchase order is being rescheduled, the buyer can approve or reject the new schedule or cancel the suggestion.

Releasing planned orders enables you to consolidate individual planned orders released at the item level into larger transfer orders across items or purchase orders. These orders are shipped at the same time or added to the same PO.

After a planned order is released, the order can be consolidated specifically to the planned order type:

- Purchase Order consolidation occurs in the order item page.
- Transfer Order consolidation occurs in the replenish location by transfer order page.
- Work Order consolidation occurs in the mass create work order page.

To integrate an action:

1. In the Supply Planning Workbench, in the row for the item you want to integrate, click the **Supply** link.
2. In the Supply Type list, select **Planned Transfer Order**.
3. In the **Details** pane, check the box beside the transfer order you want to integrate.
4. Click **Release Selected Orders**.
5. Click **OK**.
An information message box appears.
6. Go to Transactions > Supply Planning > Replenish Location by Transfer Order.
7. In the Replenish Location by Transfer Order window, in the **From Location** list, select the **From Location** you want to replenish stock from.
8. Click the **Planned Orders** subtab.
The released transfer order is displayed. Multiple orders are also displayed here.
9. To release the orders, check the box beside the order to consolidate the order based on the locations (from and to) and date.
10. Click **Submit**.
When the refresh process is run for supply planning, this new supply order will be included in the plan to reflect future supply.

Creating a Planned Order

Supply Change Orders are created automatically when you respond to an Action message. Planned orders are created by the planning process. You can also create a planned order from the supply planning workbench.

To create planned orders:

1. In the Supply Planning Workbench, click the **Supply Type** tab.
2. Click **Create Planned Order**.
3. In the Create Planned Order window, select an **Item**.
4. Select a **Location**.
5. Select a **Source Location**.

Source location represents the stocking location you are replenishing. This is where the purchase order and transfer order will be received and where the work order will be stocked after completion.
6. Select a **Transaction Type**.
7. Select planned order **Start** and **End Dates**.
8. Enter the planned order **Quantity**.
9. To firm this order, check the **Firm** box.

Firmed orders remain in the supply plan and are not erased when the supply planning process is run.
10. To release this order, check the **Released** box.
11. Enter any instructions or information you want to accompany this order in the **Memo** field.
12. Click **Save**.

To create a transfer order:

1. Go to Transactions > Supply Planning > Replenish Location by Transfer Order.
2. To select a **Date**, click the calendar icon.
3. Select the **From Subsidiary** location.

Optionally, you can select a **To Subsidiary** location.
4. Select the **From Location**.

The **From Location** represents the location that the item was transferred from. Items are taken out of this location and the inventory count for the item is decreased at the location when the order is fulfilled.

Optionally, to refine this replenishment, you can select a **To Location**, **Department**, or **Class**.
5. If you use Distribution Resource Planning and want to use a network you have set up, check the **Use Distribution Network** box.

Clear this box to create a transfer order showing a quantity based on demand at the receiving location.
6. If you use multiple units of measure, you can choose to display the **Unit** of measure as Base Unit or Stock Unit.

The planned order is displayed in the **Planned Orders** subtab.
7. To process the order, check the box beside the order and then click **Submit**.

The Processed Transfer Orders window displays the location status as Complete.
8. In the **Number** column, click the created transfer order link.

The new planned transfer order is implemented and the transaction is created.
9. In the Planned Transfer Order, click the **Transaction Created** link to display the new transfer order.

This transaction was created from the planned order.

To complete the Reorder Point Items subtab:

- Click the **Reorder Point Items** subtab.

The **Reorder Point Items** subtab displays a list of items that need to be ordered based on designated reorder point. These items have an available quantity that is less than the reorder point indicated on the item record.

- Check the **Create Transfer Order Based on Available Quantity** box to enable the **Shortage Calculation Method** field.
- If you checked the **Use Distribution Network** box in the **To create a transfer order** procedure, select a **Shortage Calculation Method**.

A shortage means the source location does not have enough stock to cover the total quantity requested by all locations. You must decide the best method to distribute the amount available:

- **Distribute Manually** – the system does not calculate the amount to transfer. You can enter the quantity you need to transfer.
- **Distribute Evenly Across Locations** – the system divides the quantity available at the From Location evenly across all locations that need this item.
- **Distribute By Percentage of Total Requested** – the system distributes items based on the quantity each location has requested.

- To filter the list for items that have a shortage warning, in the View filter, select **View Shortages Only**.

The shortage column displays a warning icon if the source location cannot fill the full amount requested by the location.

- Check the box next to each item you want to transfer.

An item is displayed in the list when the stock level is at, or below the reorder point by location.

- Click **Submit**.

For more information about the **Reorder Point Items** subtab, see [Replenish Location by Transfer Order](#).

Demand Tab

The display only Demand tab lists all demand sources included on the supply plan that are brought in from the repository.

The demand tab displays the following columns:

- **Demand** – the demand source: actual orders, forecast, planned transfer order, planned order, safety stock, supply change order, transfer order, and work order.
After you select a Demand column, the focus () image appears in the column header.
- To display how supply and demand orders are connected from a demand source, click the **Pegging icon** (). For more information, see [Pegging](#).
- **Due Date** – the demand source due date. When demand needs to be fulfilled.
- **Item** – the item name or identification number.
- **Location** – the item location ID.
- **Quantity** – the number of items.
- **Units** – if units of measure is enabled, this column displays how the item is measured.

Click **Return to Summary** to open the [Results Summary](#).

Pegging

When the pegging icon () appears beside an order, it indicates that there is a link between supply and demand for this plan.

Pegging links demand to incoming supply. You can create a peg chain between a supply transaction and a demand transaction from either side. Demand transactions can peg to supply transactions and supply transactions can peg to demand transactions. The supply planning process populates pegging data. If Supply Allocation is enabled, the system first looks for allocations and populates pegging with that information.

The remaining supply is pegged to un-allocated demand chronologically. You cannot create the associations for pegging, you can only review them. Only actual allocations are reserved. The pegging generated chronologically by the system is only provided for review/analysis.

If a firm allocation exists for a supply order, it cannot be rescheduled or canceled by the supply planning process. A peg prevents the incoming supply from being reserved or allocated to another demand transaction.

Initially, only the top-level order is displayed.

Click the arrow icon beside a parent item to display the related child item next pegging levels. For example, there is an issue with the balance, not enough supply, the supply order is late, or the purchase order was received late. You can see how demand that is impacted by that issue.

Results Summary

After the planning process has run, the supply plan data for an item or set of items is displayed in the results summary section.

The page display controls at the top of the results summary enable you to control the number of rows you want to display per page. The Show box displays the number of rows. The box beside it displays the number of results pages. For example, the results summary could display 20 rows in 3 pages.

The results summary displays the following sections and columns:

■ Item Details:

- **Item** – the name of the child item on the first level of its Bill of Materials (BOM).
You can expand the parent (assembly) item to show its child (component) items to see whether there is an issue at the component level.
Click the [Date Based Grid View](#) () icon to review all planning entries for an item and location by period.
- **Item Description** – the description of the child item on the first level of its BOM.
- **All Items** – all the counts for all items for the selected filter.

■ Inventory Measures:

- **Units** – if units of measure is enabled, this column displays how the item is measured.
- **On-Hand** – the number of items physically present in the facility.
- **On-Order** – the amount of goods ordered but not yet been received.
- **Late Demand** – the projected late demand within a selected date range. It represents projected negative balances in the plan for the date range. This includes planning horizon when default dates are used.

The High Impact Late Demand Alert ( 140) appears beside items that have severe cases of late demand that can still be addressed.

- **Message Order Counts** – the total number of messages for all items and the messages by item. You can click the number link to open the action, exception, supply, or demand tab.

Date Based Grid View

The date-based grid view enables you to review all planning entries for an item and location by period. It also displays planned orders suggested by the supply planning process to balance supply and demand. This data based grid enables you to review cause and effect by period and forecast trends for the item and location over time.

To view the date-based grid, in the Results Summary beside the item you want to view, click the date-based icon (🕒).

The Date-Based View table shows the planning results for the item by period. Shaded rows display inputs and transactions. Non-shaded rows display calculated values.

The following table describes the date-based table columns:

Column	Past Due	Description
Item Forecast		Item demand plans.
Unconsumed Forecast		The part of a demand plan that has not been consumed by sales orders.
Sales Orders		Unfulfilled sales orders.
Planned Transfer Orders		Planned transfer orders that have the current location as the source.
Transfer Orders		Unshipped transfer orders that have the current location as the source.
Total Demand		The total demand from forecast, sales orders, and transfer orders.
Parent Planned Work Orders		Planned work orders for items that are parent to the current item.
Parent Work Orders		Work orders for items that are parent to the current item.
Production Requirements		Total production requirements from the planned work orders and work orders.
Projected Gross Requirements		Total demand and production requirements.
Current Item Purchase Orders		Purchase orders for the current item that are not yet received.
Current Item Work Orders		Work orders for the current item that are not yet completed.
Current Item Transfer Orders		Transfer orders not yet received where the current location is the destination.
Scheduled Receipts		Total scheduled receipts from the above purchase orders, work orders, and transfer orders.
Projected Available Balance	On-hand quantity	Total demand + scheduled receipts – projected gross requirements (current state).
Adjusted Available Balance	On-hand quantity	Total demand + scheduled receipts – projected gross requirements + system orders (balanced).

Column	Past Due	Description
Firm Planned Orders		Firm planned orders for the current item.
Planned Orders		Planned orders for the current item.
System Orders		Firm planned orders plus planned orders.

Change Orders

After you have firmed and released orders and run the supply plan, you can create a change order. Change orders are produced when a suggested action is processed from the Action tab. Change orders need to be approved for the suggested supply plan changes to be implemented.

Creating a Change Order

Use the following procedure to create a change order.

To create a change order:

1. Go to Transactions > Supply Planning > Supply Planning Event Log.
The Submission Status for the Supply Plan Definition is complete.
2. In the **Planning Workbench** column, click the **View Result**.
3. In the Planning Workbench Results Summary, locate the order you want to create.
For example, Planned Transfer Order for Item A14 in the Ottawa Location.
4. In the order row, click the **Supply** column link.
5. In the Message/Order Filters header, select a **Supply Type**. For example, Planned Transfer Order.
The workbench displays the generated supply types.
Any orders that were firmed and released appear but are not editable. However, they will be included when future supply plans are generated.
6. To review the change order, click **Return to Summary**.

Implementing and Approving a Change Order

After you create a change order, you can implement and approve it.

To implement and approve orders:

1. Go to Transactions > Supply Planning > Planning Workbench Event Log.
2. In the **Planning Workbench Event Log**, click the link beside the change order you want to implement.
3. In the Created Change Orders window, click the link in the **Change Order** column.
For example, Work Change Order 514.
4. In the Work Change Order window, click **Approve**.
The work change order status is **Implemented**.
5. To verify that the order has changed, click the **New Date** link.
The **Production End Date** should match the **New Date**.

6. Go to Transactions > Supply Planning > Approve Supply Change Orders.
7. Select the **Supply Plan Definition** associated with the order you want to approve.
8. Select the **Item** type you want to approve.
9. Select the **Location** associated with the supply change order.
10. Select the change order **Start Date**.
11. Select the change order **End Date**.
12. Click **Submit**.

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A

Actual Demand

This Master Production Schedule (MPS) term represents sales order demand. This includes sales orders and transfer orders for the following Firm, open, and Pending Fulfilment statuses.

Adjusted Available Balance

When a planned order is included, this Master Production Schedule (MPS) and Material Requirements Plan (MRP) calculation represents the projected quantity available for an item. In other words, this figure shows the quantity after these orders are released.

Assembly item

An assembly item is an inventory item made of several components (defined by a Bill of Materials) but is identified as a single item. Assemblies are manufactured by combining raw materials you stock.

You create assembly item records to define the members of an assembly, then NetSuite enables you to track both the raw materials and the assembled items separately.

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B

Bill of distribution

A Bill of Distribution (BOD) specifies how a product is distributed within your enterprise after being received from a supplier or manufacturing, before being passed on to the customer.

Bill of materials

A Bill of Materials, or BOM, lists raw materials, assemblies, sub-components, parts, and quantities needed to manufacture a product. A BOM can be used to communicate between manufacturing partners, multiple facilities within the organization, or with a single manufacturing plant.

Bill of resources

A Bill of Resources (BOR) is a list of resources, such as labor, needed to complete a saleable product. It is used in capacity planning to prioritize and schedule work in manufacturing, by highlighting critical resources.

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C

Capacity requirements planning

Capacity Requirements Planning (CRP) is an accounting method used to determine the available production capacity of a company.

Computer Planned Order

A Computer Planned Order, or planned order, refers to a planned order (work, purchase, or transfer order), generated by MPS or MRP to resolve a negative balance for the item's projected available quantity.

Cumulative lead time

The total lead-time needed to produce an item. This assumes that all sub-assemblies have to be built and all purchased components have to be ordered and received), so that all lead-times are added together in linear fashion.

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D

Demand planning

Demand planning focuses on future demand for products from various sources, such as customer sales orders or spare parts for customer service, to create a projection of demand, or forecast.

Demand time fence

Time fences are boundaries between different periods in the planning horizon. The Association for Supply Chain Management (APICS) defines a demand time fence as "that point in time inside of which the forecast is no longer included in Total Demand." In other words, within the demand time fence, only sales orders are included in total demand and therefore used in other calculations involving total demand.

Demand driven MRP

Demand Driven Material Requirements Planning is a formal multi-level planning and execution method for planning material needs enabling a company to build more closely to market requirements.

Dependent demand

Demand for sub-assemblies or components based on the Bill of Materials and, so is dependent on demand for the item being manufactured.

Discrete manufacturing

The production of distinct items such as automobiles, appliances, or computers.

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E

Engineer to order

This is a manufacturing process in which a product is designed, engineered, and finished after an order has been received. The product is engineered to meet the specifications desired by the received order.

Exception message

An MPS or MRP Exception Message is generated by the system to alert the scheduler or material planner that a situation requires some action be taken or a decision be made.

Execution system

The ERP system where business transactions are executed. This includes Sales Orders, Purchase Orders, and Manufacturing Work Orders.

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F

Firm planned order

This is a planned order that has been firmed by the Master Scheduler (MPS) or Material Planner (MRP). After a planned order is firmed it can no longer be erased prior to a new planning run. The order will persist until it is released or canceled by the Master Scheduler or Material Planner.

Forecast consumption

Forecast consumption replaces forecasted demand with sales order demand. Each time you create a sales order line, you create demand. If demand is already forecasted, the forecast demand must be reduced by the sales order quantity to avoid counting the same demand twice.

Forward and backward forecast consumption days

Forward and backward forecast consumption days create a forecast consumption period, called a "window," that consists of the backward and forward consumption days added to the sales order line schedule date.

In other words, the consumption days define a forecast entry period. Consumption days are used when an exact match between the sales order date and the forecast date is not found, or when a match is found, but there are not enough items to cover the sales order quantity.

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I

Independent demand

This is typically demand for a finished product. It is demand for an item that is unrelated to the demand for other items. For example, demand for finished goods, parts required for destructive testing, and service parts requirements.

Inventory item

A NetSuite Inventory Item is an item for which the quantities and other information (for example, cost) are tracked in the Inventory system.

Item

An item listed in inventory is the product or part that is being tracked. In NetSuite it is possible to have a non-inventory item, which still can be counted on a list and associated with a cost/price (such as a service), but it does not have a physical quantity to be tracked.

Item definition

A NetSuite Inventory Item Definition is comprised of a name, description, and attributes that control how the item is used within the system.

Item demand plan

Records the expected future demand for an item based on previous or projected demand.

Item forecast

An item forecast displays the predicted future demand for an item.

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L

Last_Update_Date

Last_Update_Date is a system-assigned date value associated with a record in the database, designating the most recent date that the record was updated.

Lead-time

This is the time between the beginning of a process and when the results appear.

Location

A Location defined in NetSuite. In supply planning, a location could be warehouses, manufacturing plants, distribution centers, and any other locations where inventory is tracked.

Lot size

The amount of a particular item that is ordered from the plant or a supplier or issued as a standard quantity to the production process.

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M

Make to order

Make to Order means that manufacturing starts only after a customer's order is received. Make to order is a business production strategy that enables consumers to purchase products that are customized to their specifications.

Make to stock

Make to Stock is a production process where products are finished before receipt of a customer order. Customer orders are typically filled from existing stocks, and production orders are used to replenish those stocks.

Manufacturing and logistics data repository

This is a repository of data that is extracted periodically from the NetSuite ERP system. The repository acts to filter daily transactions in the execution system and enables the Master Scheduler and the Materials Planner to control the frequency of updates to the repository. This ensures that the system is reading a consistent view of the data, while processing a plan.

Manufacturing calendar

A Manufacturing Calendar designates annual operating days in advance, in each company or factory.

Master production schedule

The Master Production Schedule (MPS) is the build schedule for items designated as MPS items. Typically, these items represent independent demand from a forecast. For example, a demand plan. The Master Scheduler maintains this schedule which then becomes a set of planning numbers that drives Material Requirements Planning. It represents what the company plans to produce expressed in specific configurations, quantities, and dates.

Master production schedule MPS matrix

This is a table used to represent the Master Production Scheduling process. It displays each step of the process and the results of these calculations. It's used in most of the feature documentation for Master Production Scheduling.

Master scheduler

A Master Scheduler is responsible for balancing supply and demand for end items, service parts, and other critical resources. They also manage the Master Production Schedule, which in turn, drives Material Requirements Planning.

Material planner

The Material Planner manages the flow of materials to ensure that their organization never runs out of necessary manufacturing materials.

Material requirements planner

Material Requirements Planning (MRP) uses bills of materials data, inventory data, and the master production schedule to calculate requirements for materials. MRP makes recommendations to release replenishment orders for material.

Material requirements plan matrix

This is a table used to represent the Material Requirements Planning process. It displays each step of the process and the results of these calculations. It is used in most of the feature documentation for Master Production Scheduling.

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N

Negative balance

When the Projected Available Balance calculation displays a negative balance, demand for an item is greater than its supply. The Master Scheduler or Material Planner must then take action to restore item supply and demand balance.

Net change

Refers to any changes made to planning related data items and locations since the most recent extraction from the execution system to the manufacturing and logistics data repository.

Net requirements

Net requirements are defined by the Projected Available Balance calculation. This calculation subtracts total demand from supply for the period. If this calculation produces a negative balance, then the value required to counter this negative value and bring the projected available balance to zero or greater, represents the net requirements.

Non-inventory item

An item that does not represent physical inventory, but still represents something of value. For example, a service that is provided to customers.

Non-inventory part

An item you sell but do not keep in stock, such as an item that is custom made.

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O

On-hand quantity

The amount of inventory available for a particular item.

Option forecast

Option forecast represents dependent demand for an item. Typically, the item is an optional component of a Model Bill of Material for an item and is dependent on the forecast for the item. Percentages are used with the end-item forecast to estimate the mix of optional components and generate the option-level forecast.

Order fulfillment

The steps and processes through which an order passes, typically between the moment it is approved and when it is delivered to the customer. The steps in the order fulfillment process can include acknowledging a fulfillment request for an order, preparing and packing the items in the order, shipping the order to the customer, and recording the item fulfillment in NetSuite.

Order quantity

The quantity on order for a given period for an item.

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P

Past due forecast days

A preference that controls the number of days the system will consider a forecast quantity for consumption, after the period has passed.

Period

A specific period of time in the planning process. For example, a specific day, week, month, or year.

Plan definition

Is the definition of a supply plan, which includes a name and the parameters to be referenced by the system, that will control the system's behavior. This plan also serves as a reference for accessing the results of a supply planning run, so that multiple plans can be generated, compared, analyzed, and so on.

Plan type

There are two plan types, the Master Production Schedule (MPS) and the Material Requirements Plan (MRP). Plan type is part of the Plan Definition.

Planned order

A Planned Order is a work order, purchase order, or transfer order suggested by the planning process. Planned orders can be in firmed or released status. Firmed Planned Orders are not deleted by a subsequent planning run. Released Planned Orders are transformed into work orders, purchase orders or transfer orders in the NetSuite.

Planning horizon

The Planning Horizon is the length of time that the planning system considers during a run. The planning horizon is designated in the plan definition as several days. The system calculates the start date as the current date, and the end date as the current date plus the number of days from the plan definition. For example, if the plan start date is June 1 and the horizon is 30 days, the end date will be June 30.

Planning repository

The Planning Repository stores related planning information that enables you to control how often NetSuite updates planning inputs. The repository refresh process accumulates the most up-to-date data from NetSuite to use for supply planning. The planning process calculates projected available quantity, generates supply orders, and action, and exception messages.

Planning rule

Planning Rules are designated in the Plan Definition. They define how an item is sourced, whether it is made at a manufacturing plant, purchased from a supplier, or transferred from another plant. This information is critical for multi-location planning.

Planning scope

Planning Scope is designated in the Plan Definition. It determines which locations will be included in the plan and the demand sources for each location.

Planning time fence

A point in time in the planning horizon that acts as a boundary. Within this boundary, any changes to the schedule may adversely affect component schedules, capacity plans, customer deliveries, and cost. Within the planning time fence, the planning system will not create planned orders. Instead, Exception Messages will be created to inform you that a projected negative balance exists within the time fence.

Process manufacturing

Process manufacturing is a production process that adds value by mixing, separating, forming, and performing chemical reactions. For example, process manufacturing items can include food, chemicals, beauty products, and pharmaceuticals.

Product family

A group of products or services that pass through similar processing steps, have similar characteristics, and share common equipment prior to shipment or delivery to the customer. Can be from different overlapping product lines that are produced in one factory and often used in production planning (or sales and operations planning).

Projected available balance

An inventory balance projected into the future. It is the running sum of on-hand inventory minus requirements plus scheduled receipts and planned orders.

Projected gross requirements

The total of independent and dependent demand for a component before the netting of on-hand inventory and scheduled receipts, projected into the future.

Purchase order

A purchase order (PO) is a document issued by a buyer committing to pay the seller for the sale of specific products or services to be delivered in the future.

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Q**Quantity available**

Quantity On Hand less Quantity Committed.

Quantity back ordered

Quantity committed to sales for which there is no stock to fill the order.

Quantity committed

The number of units of an item reserved by unfulfilled sales orders.

Quantity on order

Quantity on approved purchase orders pending receipt from the vendor.

Quantity to order

Preferred Stock Level less Quantity Available.

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R**Release planned order**

The planning system generates planned orders which are suggestions to the planner to resolve a projected negative balance in the supply plan. The planner can release the planned order, which transforms it from a planned order suggested by the planning system into a work order, purchase order or transfer order.

Reorder point

The point at which you should place an order to restock an item. If you select Inventory Level Warnings from Set Preferences on the Home page, NetSuite notifies you automatically when your inventory reaches the reorder point.

Replenishment method

A preference on the item, which designates how the item is to be replenished in Inventory. For example, order point, MPS, or MRP.

Rough cut capacity planning

Rough Cut Capacity Planning (RCCP) is a long-term capacity planning tool used to balance required and available capacity and to negotiate changes to the schedule and available capacity.

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S

Safety stock

This is a measure of the amount of stock you want to keep on hand to account for variations in demand so that you do not run out. It is a buffer amount of an item you prefer to keep in stock at all times so that you do not run out.

Sales order

A sales order is a transaction that records a commitment to sell items or services to a customer. Sales orders have no accounting impact until items are shipped or services are completed.

Scheduled receipt

An open order that has an assigned due date. An open order can be a released manufacturing order, purchase order, or an unfilled customer order

Sub-assembly

A unit assembled separately but designed to be incorporated with other units into a larger manufactured product.

Supply planning

Supply planning is the component of supply chain management that determines how to best fulfill the requirements created from the demand plan. The objective is to balance supply and demand in a manner that achieves the financial and service objectives of the enterprise.

Supply planning workbench

The Supply Planning Workbench enables planners to view information supply and demand orders within the supply plan. After reviewing the results, you can then take action to adjust your supply plan to ensure that customers receive their orders complete and on time. The workbench essentially, helps to guides planners on how they will execute their supply plans.

Supply required by date

To efficiently match supply with demand, you must know the required shipping date for the product. For these calculations, you identify a Supply Required By Date on demand order lines. Then, you can calculate allocation to determine which supply sources should be used to meet the demand on specific orders by the required date. This applies to demand created from customer orders, as well as demand from transfer orders and work orders.

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T

Time-phased

The technique of expressing future demand, supply, and inventories by time period. Time phasing is one of the key elements of a planning system.

Total demand

The sum of all demand less item forecast (independent demand), option forecast (dependent demand), and demand (sales orders). This is one of the calculations used within the MPS process.

Transaction – supply planning

An exchange or transfer of goods, services, or funds. In the context of planning, there are key transactions that must be extracted from the NetSuite execution system, to properly execute a supply plan. For example, sales orders, purchase orders, or work orders.

Transfer order

An order requesting the transfer of goods from one location to another.

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U**Unconsumed forecast**

The total forecast quantity remaining in past periods, that has not been offset by sales orders.

Unfulfilled sales order

A sales order that has been created in the execution system, but has not yet been shipped.

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V**Vendor bill variances**

The Advanced Receiving feature enables you to enter vendor bill variances and generate journal postings to variance accounts. These variances can be based on quantity, price, or exchange rate discrepancies.

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W**Work order**

A work order is a task or a job, that can be scheduled or assigned to someone. In the context of planning, a work order is an order requesting the production of a quantity of product, to be completed on a specific date.

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Supply Allocation

Supply Allocation matches inventory supply sources to demand sources. This feature enables you to meet demand requirements with the right product, amount, and location, by the required date. The Supply Allocation feature can expand inventory commitment calculations to consider future inventory on supply orders in addition to current, on-hand inventory.

When you enter demand orders (sales orders or transfer orders), the allocation process also considers planned inventory orders and the supply required by date. When Supply Allocation matches demand orders with future ship dates to supply orders with future receipt dates, on-hand inventory remains available to meet demand.



[Supply Allocation – A Day in the Life](#)

Supply Required By Date

To efficiently match supply with demand, you must know the required shipping date for the product. For these calculations, you identify a Supply Required By Date on demand order lines. Then, you can calculate allocation to determine which supply sources should be used to meet the demand on specific orders by the required date. This applies to demand created from customer orders, as well as demand from transfer orders and work orders. For more information, see [Setting Supply Required By Dates on Order Lines](#).

Allocation Strategies

Use allocation strategy records to define rules for allocating inventory. When you allocate inventory for particular types of orders, NetSuite assigns allocation strategies to order lines.

For example, you can create an allocation strategy to allocate the total ordered quantity as soon as it all becomes available. Or, you can create a strategy to allocate any portion of the full ordered quantity as close to the Supply Required By Date as possible. For more information, see [Creating Allocation Strategies](#).

Allocation Calculation

Supply Allocation calculations assess current and future inventory supply and determine the best ways to allocate supply to the demand on orders. NetSuite bases these calculations on the allocation strategies defined on order lines. The system can perform calculations automatically based on preference settings or predetermined schedules. For more information, see [Supply Allocation Calculations](#).

Allocation Exceptions

Supply Allocation matches supply with demand based on allocation strategies. It identifies orders that will not have a supply source to meet the demand by their Supply Required By Date. When this occurs,

NetSuite generates a Supply Allocation Exception to warn you that demand may not be met in time. For more information, see [Supply Allocation Exceptions](#).

Item Types

Supply Allocation works with current and future inventories and supports the following Item Types:

- Inventory Items
- Assembly Items
- Kit/Package Items (only in sales orders)

Supply Allocation Setup

Use the following topics to set up Supply Allocation in your account:

- [Enabling Supply Allocation](#)
- [Enabling Blanket Purchase Orders and Inbound Shipments](#)
- [Setting Demand Preferences for Supply Allocation](#)
- [Setting Supply Preferences for Supply Allocation](#)
- [Setting Up Location Records for Supply Allocation](#)
- [Setting Up Item Records for Supply Allocation](#)
- [Setting Up Inventory Status Records for Supply Allocation](#)
- [Setting Up Order Reservations](#)
- [Enabling Sales Channels](#)
- [Enabling Inbound Shipment for Supply Allocation](#)

Enabling Supply Allocation

Enable Supply Allocation to meet demand requirements with the right product, amount, and location, by the required date.

To enable supply allocation:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. Check the **Supply Allocation** box.
4. Verify that the **Multi-Location Inventory** box is checked.
5. To initiate the required data check, click **Save**.
6. On the Supply Allocation Migration page, click **Submit**.
7. If necessary, click **Refresh** to update the status of the data check.
8. After the data check is complete, the system informs you if the check was successful.
 - If the data check is unsuccessful, a message indicates that you need to contact NetSuite Customer Support.
 - If the data check is successful, return to Setup > Company > Enable Features. Check the **Supply Allocation** box on the **Items & Inventory** subtab and then click **Save**.

Enabling Blanket Purchase Orders and Inbound Shipments

Enable the Supply Allocation feature to expand inventory commitment to consider future inventory as well as current inventory.

Enabling Blanket Purchase Order Schedules enable you to provide production forecasts to vendors. Inbound Shipments enable you to create multiple inbound shipments against each purchase order line, each with its own delivery date and receiving location.

To enable blanket purchase orders and inbound shipments:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the **Supply Chain Control Tower** box.
3. On the **Analytics** subtab, check the **Supply Chain Predicted Risks** box.
4. On the **Transactions** subtab, check the **Blanket Purchase Orders** box.
5. Check the **Inbound Shipment Management** box.
6. Click **Save**.

Setting Demand Preferences for Supply Allocation

Define how Supply Allocation sorts demand orders when allocating inventory.

To set demand preferences for supply allocation:

1. Go to Setup > Order Management > Supply Allocation.
2. In the **Demand Transaction Sorting Options** section, select the first, second, and third columns by which to sort demand orders:
 - From the **Sort By** list, select the first column field by which to sort demand transactions.
 - From the **Then By** list, select the secondary column field by which to sort demand transactions.
 - If required, from the next **Then By** list, select a third column field by which to sort demand transactions.

For example, if you want to sort picking tickets by **Transaction Date** first, then by **Expected Ship Date**, select the following:

- From the **Sort By** list, select **Transaction Date**.
 - From the **Then By** list, select **Expected Ship Date**.
3. To change the sort order, check the **Descending** box. The default order is ascending.
 4. Select an **Allocation Timing** option:

Affected transactions include purchase orders, sales order, transfer orders, and work orders.

- To automatically reallocate inventory whenever a demand transaction is created, changed, or deleted, check the **Perform Supply Allocation After Transaction Entry, Update or Delete** box.

To manually reallocate inventory, clear the box.



Note: Items must be de-allocated on other orders before they can be automatically reallocated.

- To automatically close order reservations that are past their user defined expiration date, check the **Close Order Reservations Based on Expiration Date** box.

- For the order reservation expiry date, select an effective **Start Time to Close Expired Order Reservations** option. For example, you can refine the March 31 order reservation expiry date start at 1:00 on that day.



Note: Enter an expiry date that occurs before the order reservations pick up date.

- Select which **Time Zone to Start Closing Expire Order Reservations**.

Setting Supply Preferences for Supply Allocation

Define the default allocation strategy for each demand order type. The strategy you set appears as the default selection on demand order lines. You can change the default to another strategy on individual orders.

To set supply preferences for Supply Allocation:

- Go to Setup > Order Management > Supply Allocation.
- On the **Supply Preferences** subtab, set the following preferences:
 - From the **Default Allocation Strategy on Sales Order** list, select an allocation strategy for the default selection on new sales orders.
 - From the **Default Allocation Strategy on Work Order** list, select an allocation strategy for the default selection on new work orders.
 - From the **Default Allocation Strategy on Transfer Order** list, select an allocation strategy for the default selection on new transfer orders.
- Click **Save**.

Setting Up Location Records for Supply Allocation

For each location, choose to make inventory available to be allocated and committed.

To set up location records for Supply Allocation:

- Go to Setup > Company > Classifications > Locations > New.
- Next to the location from which you want to allocate inventory, click **Edit**.
- Check the **Make Inventory Available** box on the location record. This enables NetSuite to allocate and commit inventory from this location.
- Click **Save**.

For more information about location records, see the help topic [Creating Locations](#).

Setting Up Item Records for Supply Allocation

After you enable the Supply Allocation feature, item records include additional fields that require values.

On the Locations subtab, choose the Inventory View. The Quantity Allocated field displays the sum of allocated quantities across all demand orders for each location.

After enabling Supply Allocation, on the Locations subtab, View field, choose Order Management for details about item quantities that are committed and allocated. Note that the total quantity allocated includes the total quantity committed. The quantity committed is a subset of the quantity allocated.

To set up item records for Supply Allocation:

1. Go to Lists > Accounting > Items.
2. Next to the item you want to set up, click **Edit**.
The **Purchasing/Inventory** subtab and the **Locations** subtab under it, are open by default.
3. On the **Locations** subtab, a list of locations is displayed. In the **ATP Lead Time** field, enter the number of days for the lead time next to your location of choice.
If no current or future supply is available, Supply Allocation uses this value to calculate item availability dates for demand orders in each location.
4. Click **Save**.

Setting Up Inventory Status Records for Supply Allocation

If you also use the Inventory Status feature, you can determine allocation and commitment availability on each inventory status record. For example, you may choose to exclude items that are undergoing an inspection. Alternatively, you can exclude a status of **bad** from availability for commitment or allocation.

For each status, set inventory availability for commitment, for supply allocation, for both, or for neither.

To set up inventory status records for Supply Allocation:

1. Go to Lists > Supply Chain > Inventory Status > New.
2. Click **Edit** next to a status.
3. To make on-hand inventory associated with this status available for NetSuite to commit to orders, check the **Make Inventory Available for Commitment** box.
If you prefer that on-hand inventory associated with this status is excluded from the available count, clear this box.
4. To make on-hand inventory associated with this status available for Supply Allocation to allocate to orders, check the **Make Inventory Available for Allocation** box.
If you prefer that on-hand inventory associated with this status is excluded from being allocated to orders using Supply Allocation, clear this box.
5. Click **Save**.

After a status is associated with items on completed or pending transactions, you cannot check or clear these boxes.



Important: The settings chosen here do not apply to items on drop shipments and special order purchases. Items with an unavailable status can be allocated to sales orders marked as drop shipments or special orders. You can also receive unavailable items on the associated purchase order created from a drop shipment or special order sales order. For more information about drop shipments and special orders, see the help topic [Drop Shipment and Special Order Purchases](#).

For more information about the Inventory Status feature, see [Inventory Status](#).

Setting Up Order Reservations

Order reservation works as a virtual container that enables you to save multiple sources of supply for a specific group of future demands. This helps you to ensure that supplies are saved for high priority customers.

To enable approval routing and suiteflow:

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. In the **Employees** subtab, check the **Approval Routing** box.
3. Click the **SuiteCloud** subtab.
4. Under **SuiteFlow**, check the **SuiteFlow** box.
5. Click **Save**.

To enable approval routing for order reservations:

1. Go to Setup > Accounting > Accounting Preferences.
2. On the **Approval Routing** subtab, check the **Order Reservations** box.
When cleared, the order reservation is automatically approved.
3. Click **Save**.

Enabling Sales Channels

The Sales Channel Allocation feature enables planners to save inventory and future supplies to sales orders in these channels.

To enable sales channels:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. In the Inventory section, check the **Supply Allocation** box.
For more information, see [Enabling Supply Allocation](#)
4. Check the **Sales Channel Allocation** box.
5. Click **Save**.

Enabling Inbound Shipment for Supply Allocation

The Inbound Shipment for Supply Allocation feature lets you create multiple inbound shipments. Each shipment can have a delivery date and receiving location for each purchase order line. Supply allocation can allocate both the inbound shipments and purchase orders to ensure that the allocated quantities are reconciled across these sources of supply. This new source of information enables you to provide more accurate availability information about sales orders.

To set up inbound shipment for supply allocation:

1. Go to Setup > Company > Enable Features.
2. Click the **Transactions** subtab.
3. Check the following boxes:
 - **Purchase Orders**
 - **Advanced Receiving**
 - **Inbound Shipment Management**

4. On the **Items & Inventory** tab, check the following boxes:

- **Advanced Bin/Numbered Inventory Management**
Basic Bins are not supported
- **Advanced Inventory Management**
- **Landed Cost**

5. Click **Save**.

For more information, see Inbound Shipment Management [Prerequisites and Setup](#).

A demand order line with an allocation strategy that includes Inbound Shipment, Inbound Shipment lines can be allocated to that order line. (Allocation strategy with Inbound Shipment is specified in the Future Inventory options.)

Supply Allocation Management

After you set up the Supply Allocation feature, you can use Supply Allocation to maximize efficiency of allocating your inventory. The following topics can assist you with day-to-day allocation functions.

- [Creating Allocation Strategies](#)

Create an allocation strategy to define rules used to allocate particular inventory.

- [Creating Order Allocation Schedules](#)

Create schedules to automate when NetSuite calculates allocation to periodically re-assess the demand orders that are being prioritized to be fulfilled.

- [Applying Allocation Strategies to Order Lines](#)

After you have created allocation strategies, assign them on demand orders.

- [Setting Supply Required By Dates on Order Lines](#)

Define the date when demand on an order needs to be met.

- [Supply Allocation Calculations](#)

Learn more about ways that allocation is calculated in NetSuite.

- [Supply Allocation Exceptions](#)

If allocation calculations determine that supply will not meet demand in time, you are alerted.

- [Allocating Supply to Order Demand](#)

Supply can be allocated manually in addition to automated calculation.

Creating Allocation Strategies

Create an allocation strategy to define the rules that allocate particular inventory. You can create multiple strategies, then select them on demand order lines to specify the inventory allocation to respond to that demand.

For example, you want to allocate e-commerce orders quickly and allocate wholesale orders close to the Supply Required By Date. You can create several strategies to cover various cases and create new ones as situations change over time.

When you enable the Supply Allocation feature, two predefined allocation strategies are available by default. Note that these default strategies only consider inventory that is currently on-hand, not future inventory.

- **Predefined Available Allocation Strategy** - This strategy uses the Allocation Quantities setting to allocate any available quantities.

 **Note:** You cannot delete a **Predefined Available Allocation Strategy**. In some cases, NetSuite uses this record as backup. For example, manually allocating current inventory on the reallocate items page to order lines with no allocation strategy.

- **Predefined Complete Allocation Strategy** - This strategy uses the Allocation Quantities setting to allocate only complete quantities.

To view a complete list of allocation strategies, go to Setup > Order Management > Order Allocation Strategies.

Creating Supply Allocation Strategies

To create an allocation strategy:

1. Go to Setup > Order Management > Order Allocation Strategies > New.
2. Enter a **Name** for the strategy. This name appears in strategy lists.
3. Check the **Inactive** box if you do not want this strategy to show in lists.
4. To consider future inventory for allocation, under Inventory Options, check the **Future Inventory** box.

This includes inventory that is on-order and in-transit, but not yet received. Note that inventory that is currently on-hand is always considered for allocation.

5. In the **Future Inventory Order Types** field, click each type to consider for future inventory. To select more than one, press the **Shift** key and then click each item.

If you select **Purchase Order, Inbound Shipment** is automatically selected. However, you can select **Inbound Shipment** without selecting **Purchase Order**.

To exclude future inventory from consideration for allocation, clear the **Future Inventory** box.

6. Use the **Allocation Period** fields to limit the allocation of inventory by defining a specific period before or after the **Supply Required by Date**.

 **Note:** If no allocation period is defined, this allocation strategy considers all inventory that is available to allocate.

- a. To limit the inventory allocation to a period before the **Supply Required by Date**:
 - i. Under **Current and Future Inventory**, check the **Limit Inventory Allocation Period Before Supply Required by Date** box.
 - ii. In the **Days** field, enter the number of days for the limited allocation period. The default value is 180 days. The maximum value you can enter is 9999.
- b. To limit inventory allocation to the period after the **Supply Required by Date**:
 - i. Under **Future Inventory Only**, check the **Limit Inventory Allocation Period After Supply Required by Date** box.
 - ii. In the **Days** field, enter the number of days in the period after the Supply Required by Date to consider. The default value is 0 days. The maximum value you can enter is 9999.

For example, for seasonal items, you want to limit allocation to 30 days before and 30 days after the **Supply Required By Date**. To do this, check both boxes and enter 30 in the Days fields.

7. Under **Allocation Method**, choose one of the following:

- **Allocate as Soon as Available Before Supply Required by Date**

- **Allocate as Close as Possible to Supply Required by Date**

8. Under **Allocation Quantities**, choose one of the following:

- **Available Quantity** - Allows NetSuite to allocation a partial quantity of items as soon as any portion of the total amount needed becomes available. NetSuite will allocate the remainder at a future time after another allocation calculation.

For example, a sales order line needs 10 items. Only five items are available now to be committed. Using this setting, NetSuite allocates five items to demand on the line now and the remaining five in the future.

- **Complete Quantity** – Allocate items only when the total amount needed for the line is available for commitment. If only a portion of the full amount is available, NetSuite does not yet commit any of the items.

For example, a sales order line needs 10 items. Only 5 items are available now for commitment. When you choose this option, NetSuite allocates 0 items to demand on the line now. No items are allocated against the demand until the full amount is available for commitment. NetSuite will allocate all 10 items in the future.

9. Under **Available Date Calculation**, choose one of the following:

- **Calculate Available Date with ATP Lead Time** - to calculate the available date using available to promise lead time.
- **Calculate Available Date without ATP Lead Time** – to calculate the available date using available to promise lead time.

10. Under **Allocation Type**, choose one of the following to indicate the allocation type:

- **Reserved Allocation** – NetSuite commits inventory, but can also reallocate it to other orders.
- **Firm Allocation** - NetSuite commits inventory and cannot reallocate it to other orders by the system. You can only reallocate this inventory manually.



Note: When part of the ordered quantity is Firm Allocation, the system may allocate further quantities in addition to the amount that has been allocated. The system can drop such allocation only when the user sets the strategy on the order line to Do Not Allocate.

11. Click **Save**.

Allocation Strategy Examples

The following image shows how NetSuite allocates inventory based on the values set in the Allocation Method, Allocation Quantities, and Allocation Period fields.

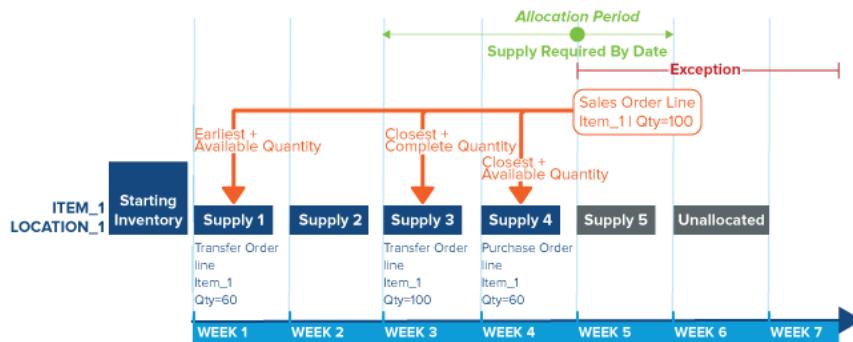
Consider a sales order line that has a quantity of 100 units of Item_1:

- 60 units of Item_1 from a transfer order in week 1.
- 100 units from a transfer order in week 3
- 60 items from a purchase order in week 4.

If Allocation Method is Earliest and Allocation Quantities is Available Quantity, NetSuite allocates Supply 1 in Week 1 to the sales order line. Supply 1 represents the allocation of a partial quantity of inventory as soon as it's available before the Supply Required by Date.

NetSuite allocates Supply 3 or Supply 4 to the sales order line based on the alternate methods and quantities. Supply 3 represents the allocation of the total quantity of inventory for the sales order, close to the Supply Required by Date. Supply 4 represents the allocation of a partial quantity of inventory as close as possible to the Supply Required by Date.

Use the Allocation Period field to limit the allocation of inventory by defining a specific period before or after the Supply Required by Date. In this example, NetSuite would not consider Supply 1 for allocation when the Allocation Period is 14 days before the Supply Required By Date. You can also use the Allocation Period option to limit allocation of future supplies arriving later than the Supply Required By Date.



For more information, see [Creating Allocation Strategies](#).

Creating Order Allocation Schedules

Create an allocation schedule to automate allocation calculations based on rules defined on the schedule.

[Creating Order Allocation Schedules](#)

Note: When you use approval routing, allocation calculations consider only approved inventory supply orders. This applies to purchase orders, work orders, and transfer orders. Additionally, work orders must have a Released status for NetSuite to consider them in allocation calculations.

To create an allocation schedule:

1. Go to Transactions > Order Management > Allocate Orders > Schedule.
2. Click **New Order Allocation Schedule**.
3. Under Primary Information, complete the following steps:
 - a. Enter a schedule **Name**.
For example, enter the name **Weekly Order Allocation** for an allocation you plan to run one time a week.
 - b. Enter a **Description** with additional details that identify this schedule.
 - c. Check the **Inactive** box to exclude this schedule from lists.
4. Under Schedule, complete the following steps:
 - a. To select how often to run this schedule, select a **Recurrence Frequency**.
 - b. If the selected **Recurrence Frequency** is **Weekly**, **Monthly**, or **Annually**, from the **Repeat Every** list, select a number to specify the recurrence.
For example, using a monthly recurrence, select **2** to repeat every two months. Using a weekly recurrence, select **3** to repeat every three weeks.
 - c. To specify the next date you want the schedule to run, enter the **Next Date**.
 - d. To specify the hour and minute the next schedule runs, select a **Next Time**.
5. Under Order Options, complete the following steps:

- a. Select a **Subsidiary** to limit the list of locations when you set search criteria described later in this procedure.



Note: In the Intercompany Cross-Subsidiary Fulfillment Feature, the list expands to include cross-subsidiary locations defined as an Inventory Subsidiary on the Global Inventory Relationship record.

- b. Select an **Allocation Processing Option**.
 - **Using Sorting Options Only**
 - **Using Fill Rate Optimization** – prompts NetSuite's batch allocation logic to calculate the largest possible number of order lines fully allocated on time.
 - **Using Revenue Optimization on Sales Order** - The system allocates existing supply to produce the maximum sales revenue.
Revenue is defined as the company income on the sales transaction after the product is sold (invoiced). The revenue on the sales order line is stored by the amount field, in the transaction currency.
 - **Using Gross Profit Optimization on Sales Order** - The system allocates the existing supply to maximize sales profits.
Gross Profit is the remaining sales transaction amount after deducting the direct item cost from the revenue. When the Gross Profit feature is enabled, gross profit is calculated on the sales order line and stored by the Est. Gross Profit field in the transaction currency.
 - c. Check the **Set Order Line to Firm** box to set items as firmed when this allocation schedule is run.
Clear this box to set items as committed but not yet firmed when this allocation schedule is run.
6. Under Select and Sort Orders, select one of the following options to filter the list of orders using a saved search:
- **Select Orders Manually** - Choose this option if you do not want to filter the list using a saved search. You can define search criteria later in this procedure.
 - **Select Orders Using a Saved Search** - Choose this option to filter the list of orders using an existing saved search.
 - **Select Orders by Creating a New Search** - Choose this option to open a form to choose filters for a new saved search. For more information about creating a saved search, see the help topic [Defining a Saved Search](#).
7. If you choose **Select Orders Manually** under **Select and Sort Orders**, NetSuite displays the following fields for you to define search criteria. These criteria determine which orders appear in the list:

Criteria	Description
Location	Choose a location to filter orders by location. Press and hold the Ctrl key to select more than one location.
Item	Choose an item to filter orders by that item.
Sales Channel	Choose a sales channel to filter orders by sales channels.
Customer	Choose a customer to filter for orders associated with a customer.
Order No.	Enter an order number to filter for a certain number.
Transaction Type	Choose a type of transaction to filter the list for that type.

Criteria	Description
Transaction Date From	Enter a beginning date to define a transaction date range.
Transaction Date To	Enter an end date to define a transaction date range.
Supply Required by Date From	Enter a beginning date to define a supply required by date range.
Supply Required by Date To	Enter an end date to define a supply required by date range.
Expected Ship Date From	Enter a beginning date to define an expected ship date range.
Expected Ship Date To	Enter an end date to define an expected ship date range.
Order Priority From	Enter a beginning date to define an order priority range.
Order Priority To	Enter an end date to define an order priority range.
Est. Gross Profit Percent From	Enter the lowest estimated gross profit amount to restrict the list of sales orders returned.
Exclude Zero Est. Extended Cost	Check this box to exclude all sales orders with zero estimated extended cost. Zero estimated extended cost are always suspects if wrong data profitability data. This is a user option to exclude all of those and investigate them afterwards.

- a. Under **Sort By**, make selections in the fields below to define how the orders are sorted.



Note: The sorting option on the Order Allocation Schedule page defaults to use the predefined preferences. For more information, see [Setting Demand Preferences for Supply Allocation](#).

- i. In the **Sort By** field, choose a field to sort the orders.
- ii. In the **Then By** field, choose a field for a secondary sort for orders.

For example, you can sort orders in this manner:

- In the **Sort By** field, choose **Transaction Date**.
- In the **Then By** field, choose **Expected Ship Date**.

Using these sorting options, the list is first sorted by **Transaction Date**, and within each date, orders are sorted by the **Expected Ship Date**.

The sort order on custom forms is ascending by default, but you can check the **Descending** box to change the sort order.

8. Click **Save**.

Applying Allocation Strategies to Order Lines

When you enter a sales order, you can select an allocation strategy for each line item. The strategy you select for each line determines the way NetSuite allocates inventory for each line's demand. You can assign a unique strategy for each line.

For details about creating allocation strategies, see [Creating Allocation Strategies](#).

To apply an allocation strategy to an order line:

1. Open or create a sales order, transfer order, or work order.
2. Click the **Items** subtab.
3. On an item line, in the **Allocation Strategy** field, select a strategy.

4. Click **Add** or **Save** on the line.
5. Repeat the steps above for each line item to which you want to assign a strategy.
6. Click **Save**.

Setting Supply Required By Dates on Order Lines

Demand order lines on can help you identify the Supply Required By Date. This information enables you to learn the date the order must be shipped to the customer. Supply allocation calculates which supply sources you can use to meet the demand created from customer orders, transfer orders, and work orders.

Supply orders display all related demand orders that have been allocated from the incoming supply. This then shows you which demand orders are affected when a supply order is not received on the scheduled date. You can then identify which supply order could cause a demand order to miss its supply required by date.

To set a supply required by date on a sales or transfer order line:

1. Open or create a sales order or transfer order.
2. Click the **Items** subtab.
3. Add an assembly item.
4. On an item line, in the **Supply Required By Date** field, select a date.
5. Click **Add** or **Save** on the line.
6. Repeat the steps above for each line item to which you want to assign a Supply Required By Date.
7. Click **Save**.

To set a supply required by date on a work order line:

1. Open or create a work order.
For more information, see the help topic [Entering an Individual Work Order](#).
2. Click the **Items** subtab.
3. Add an assembly item.
4. In the **Supply Required By Date** field, select a date.
5. Click **Save**.

Set the preference to **Perform Supply Allocation After Transaction Entry, Update or Delete** and then save the form. The allocation calculations determine whether inventory supplies can meet the demand on the order by the required date. If demand cannot be met, NetSuite displays an allocation alert to warn you that demand for one or more lines cannot be met.

View the lines on the order to compare the Supply Required By Date and the Expected Ship Date to investigate the problem. Click the link in the Allocated Supply field to view details about where NetSuite is allocating the supply. The Allocated Supply window also details the number of days late that supply will arrive.

Supply Allocation Calculations

Set the preference to **Perform Supply Allocation After Transaction Entry, Update or Delete** and then save a demand order form. NetSuite then performs a new allocation calculation in real time for each

order line. This calculation determines whether inventory supplies can meet the demand on the order by the Supply Required By Date.

Inventory demand can originate from several sources, including:

- Sales to customers (sales orders)
- Retail store locations (transfer orders)
- Warehouse distribution centers (transfer orders)
- Assembly manufacturing locations (work orders)

After you enter these transactions, the Supply Allocation feature uses them to calculate demand for the items on the order. Then, demand for items is matched to current and future sources of supply for the items. Inventory supply sources can include these examples:

- Vendor fulfillment of purchase orders (purchase orders)
- Warehouse distribution centers (transfer orders)
- Assembly manufacturing locations (work orders)

NetSuite bases supply allocation calculations that determine the best ways to commit supply to demand on the allocation strategies defined on order lines. For details about strategies, see [Allocation Strategies](#).

NetSuite can perform allocation calculations automatically based on preference settings or based on predetermined schedules. The following are allocation calculation triggers:

- **Automated Real Time** - NetSuite calculates allocation automatically in real time if you set the **Perform Supply Allocation After Transaction Entry, Update or Delete** preference.
 - NetSuite calculates allocation each time a demand order is created, edited, or deleted (Sales Order, Transfer Order, Work Order).
 - NetSuite calculates allocation each time a supply order is created, edited, or deleted (Purchase Order, Transfer Order, Work Order).
 - NetSuite calculates allocation for each order line.
 - Reallocation whenever supply falls below allocated quantities
 For details on this preference, see [Setting Demand Preferences for Supply Allocation](#).
- **On Demand** - NetSuite calculates allocation for demand orders using the Allocate Orders page.
- **Scheduled** - NetSuite calculates allocation automatically for demand orders based on schedules using the Order Allocation Schedule page.
 - For more information, see [Creating Order Allocation Schedules](#).
- **Manual** - Manually calculate reallocation for demand orders using the Reallocate Items page.

When a supply quantity is matched to a demand quantity, that quantity is allocated to the specific demand order. When the allocation is set as Firm, that quantity cannot be changed or reallocated to another order. If the allocation is not firmed, quantities allocated to that demand order may be reallocated by the supply allocation process during a future calculation.

You can set an allocation as firm in one of two ways:

- On the allocated order line, check the Commitment Confirmed box.
- On an Allocation Strategy, set the Allocation Type field to Firm Allocation. Then, apply the associated strategy to the order line before allocation.

For more information, see [Creating Allocation Strategies](#) and [Applying Allocation Strategies to Order Lines](#).

If a calculation determines that demand cannot be met, an alert warns you that demand for one or more lines cannot be met. For more information, see [Supply Allocation Exceptions](#).

Supply Allocation Exceptions

A supply allocation calculation may determine that inventory will not be available to meet order demand by the indicated Supply Required By Date. When this occurs, a Supply Allocation Exception is generated to warn you that an order may not be fulfilled in time.

You can check the Supply Allocation Alerts page to view all sales orders currently generating an exception alert. This page summarizes orders with one or more exceptions and displays details about exceptions that are generated.

1. Go to Transactions > Order Management > Order Allocation Alerts.
2. You can optionally filter the list of alerts by subsidiary, status, and style.
3. Click the order number on a line to display demand exception details.

For each exception, NetSuite displays the following exception information:

- Order Number
- Customer – links to the customer order
- Order Priority
- Status
- Subsidiary
- Ship Complete
- Order Date
- Earliest Alert Supply Required by Date
- Sales Channel

Exception details can include number of days late for a demand order line. Also, related supply orders are linked on the demand order line.



Tip: If you customize a view, you can select an option in the View field to change the displayed information.

Supply Allocation Exceptions Management

Supply Allocation Exceptions Management is designed to help you make informed reallocation choices. To respond to supply shortages, review all sources of supply and order allocations to ensure high priority sales orders ship complete and on time.

To help you achieve these goals, the NetSuite Reallocate Order popup window can be accessed from order lines. The Reallocate Order item generates intelligent supply re-allocation recommendations with reasonably little effect on other orders. Automating reallocation significantly reduces the time to find, review, and execute reallocations. After you accept a recommendation, the system automatically re-aligns the supplies to the affected orders. This system reallocation logic produces recommendations by reviewing all available (unallocated) supplies and then reviewing which orders are best suited to reallocate supplies.

The following is the exceptions management process:

1. Review existing exceptions to identify which orders cannot be fulfilled by the supply required by date.

NetSuite offers the following two options for exception lists:

- Order Allocation Alerts
- Customized Late Order Allocations or Transaction Saved Searches

Order Allocation Alerts are based on late order allocation searches, which display orders without order line break-down.

Transaction searches can display each order line with allocation information.

2. After reviewing the exception lists, review sources of supply and existing orders to decide how to re-allocate to the high priority, or target, orders.

On all of these lists you can drill down on each order and act on an exception.

Sales order lines display a link to the Reallocate Order Item.

3. Select one or more order lines from less urgent orders to move to the target sales order line to meet the requested date and quantity.
4. If the generated recommendations are unsuitable, you can generate a new set of allocation recommendations.
5. Review the new reallocation scenarios until you arrive at a suitable solution.
6. After the reallocation is approved, NetSuite automatically executes the re-allocations across the selected orders.
7. The system opens the sales order enabling you to reallocate any other order lines.

Setting up Access to Reallocate Order Items

Complete the following procedure to enable the Reallocate Order items to generate intelligent supply re-allocation recommendations.

To set up access to reallocate order items:

1. Go to Setup > User/Roles > Manage Roles.
2. Check that you have **Create**, **Edit**, or **Full** permission for **Reallocate Order Item**.
To view this permission, in the **Permissions** subtab, click **Lists**.
3. Check that you have **View** permissions for **Sales**, **Transfer**, **Work**, and **Transfer Orders**.

Creating Reallocate Recommendations

NetSuite enables you to create reallocation recommendations to address your supply shortages. By reviewing all sources of supply and order allocations, you can ensure that high priority sales orders are shipped complete and on time. These recommendations are designed to have minimal effect on other orders.

Creating Reallocation Recommendations.

To create a reallocation recommendation:

1. Go to Transactions > Order Management > Order Allocation Alerts.
The Order Allocation Alerts page displays the late orders.
2. Review the information in the following **Order Allocation Alerts** results columns to understand which orders most urgently need to be filled:
 - Earliest Alert Supply Required by Date
 - Order Date

- Order Priority
- Customer

3. After deciding which order needs to receive allocations, click the **Order** column number link.

The **Sales Order, Items** subtab displays how late the order is and how much inventory needs to be reallocated to fulfill this order.

4. In the exception list or sales order, review each order line's allocation details.
5. To take allocations from other orders to fulfill this order, in the **Reallocate Order Item** column, click **Reallocate**.

6. Review the **Reallocate Order Item** window order details to understand what to reallocate do to satisfy the order requirements:

- **Supply Required by Date** – how late is this order.
- **Quantity** – how many items are assigned to this order.
- **Expected Ship Date** – date is based on existing allocations.
- **Priority** –orders are ranked by importance.
- **Customer** – helps decide order of importance.
- **Location**
- **Expected Ship Date** – based on the system generated recommendation.

7. In the **Select Orders for Reallocation** subtab, review the possible source orders where you can take resources from.

The order items must be at the same location:

- a. Review the **Order Priority** and **Commitment Confirmed** columns to locate possible reallocation sources.
- b. Check the box beside the order, or orders, you want to reallocate.

You may need to select more than one order if the source orders do not have enough inventory to fulfill the target order.

To customize the **Select Orders for Reallocation** subtab list, click **Customize View**.

8. Click **Generate Recommendation**.

When the recommendation is available, NetSuite enables the **Accept Recommendation and Reallocate** button.

9. Click the **Affected Orders** subtab to display a list of system generated recommendations where resources were taken from.
 - The Recommendation of Success and Recommendation Summary sections display whether the Quantity and Expected Ship Dates will be met due to this reallocation.
 - The target order is identified.
 - If the **Impact in Days** column displays a negative number, the expected delivery date has moved forward due to the reallocation.
 - If source orders display positive numbers in the **Impact in Days** columns, the source orders will be shipped later than the reallocation.
 - To customize the **Affected Orders** subtab list, click **Customize View**.

You may need to select a wider range of orders to meet the target order needs.

To reallocate, repeat steps 5 to 9.

10. To assess the affects of this reallocation, click the **Allocated Supply** subtab.

This subtab shows the supplies available to the target and source orders after reallocation.

- The **Supply Type** column displays where the inventory came from. For example, purchase order or inventory.
- The **Quantity Allocated** column shows the remaining inventory allocated to that sales order.
- To customize the **Allocated Orders** subtab list, click **Customize View**.

For example, you can add a **Demand Order #** column to show that the target sales order is receiving the supplies it needs. It also displays the new allocation of orders that lost inventory due to the reallocation.

11. If this order satisfies the target order needs without adversely harming the source orders, click **Accept Recommendations and Reallocate**.

The window closes and the customer is returned to the sales order.

On the sales order the reallocated order line is expected to be shipped on time and the **Reallocate** link is no longer visible.

Lot and Serial Numbered Items on Reallocate Order Item

Enabling Serialized Inventory or Lot Tracking makes entering Lot Numbers on Lot or Serial numbers on Serial Numbered Items optional. Order line quantity on Purchase, Work, Transfer, or Sales Orders can be greater than the sum of all Inventory Details Serial or Lot numbers.

Reallocate Order Item does not remove existing serial or lot numbered inventory commitments from the order line if it has serial or lot numbers. For the candidate order, existing order commitments cannot be reallocate quantities that are serial or lot numbered on the order line.

Optimizing Fill Rate

Fill Rate Optimization is available on the [Creating Allocation Strategies](#) and [Creating Order Allocation Schedules](#) pages. Allocation Optimization calculates maximum possible demand orders for an allocation batch.

Fill Rate can be defined as the number of fully allocated order lines divided by the total number of order lines during a defined period. For example, your organization is receiving supplies at a single location. You have several sales orders all with differing priorities, for multiple customers, and on different dates. Unfortunately, there is an inventory quantity shortage of 10%. This shortage may not cause a significant delay, but it inconveniences most of your customers. These delays also affect your organization's Fill Rate KPI.

Supply Allocation Optimize Fill Rate

NetSuite enables you to allocate orders using the new Fill Rate Optimization feature.

To optimize order allocation on the Allocate Orders page:

1. Go to Transactions > Order Management > Allocate Orders.
2. Complete the Allocate Orders form.
For more information, see [Allocating Supply to Order Demand](#).
3. In the Orders section, select an **Allocation Processing Option**:
 - **Using Sorting Options Only**
 - **Using Fill Rate Optimization** – prompts NetSuite's batch allocation logic to calculate the largest possible number of order lines fully allocated on time.
 - **Using Revenue Optimization on Sales Order** - The system allocates existing supply to produce the maximum sales revenue.

Revenue is defined as the company income on the sales transaction after the product is sold (invoiced). The revenue on the sales order line is stored by the amount field, in the transaction currency.

- **Using Gross Profit Optimization on Sales Order** - The system allocates the existing supply to maximize sales profits.

Gross Profit is the remaining sales transaction amount after deducting the direct item cost from the revenue. When the Gross Profit feature is enabled, gross profit is calculated on the sales order line and stored by the Est. Gross Profit field in the transaction currency.

4. In the Orders section, check the box beside the orders that you want to optimize.
5. Click **Submit**.

To optimize order allocation on the Order Allocation Schedule page:

1. Go to Transactions > Order Management > Allocate Orders > Schedule.
2. Click new **Order Allocation Schedule**.
3. Complete the Order Allocation Schedule form.
For more information, see [Creating Order Allocation Schedules](#).
4. In the Order Options section, **Allocation Processing Option** list, select **Using Fill Rate Optimization**.
This option prompts NetSuite's batch allocation logic to calculate the largest possible number of order lines fully allocated on time.
5. Select a **Sort Order** filter.
6. Click **Save**.

After the allocation batch completes its calculations, NetSuite allocates the existing supplies to satisfy as many order lines as possible using the following parameters:

- Allocates the full required quantities.
- Allocate the latest supplies that meet the Supply Requited By Dates.
- Prioritizes smaller quantities over larger quantities.

Beyond the optimization priorities, Supply Allocation follows the allocation preferences and the allocation strategy of each order.

Allocating Supply to Order Demand

You can manually choose which order lines to allocate inventory to. Use the steps below to filter and sort the list of order lines, then choose which lines to allocate items for.

To manually allocate supply to orders:

1. Go to Transaction > Order Management > Allocate Orders.
2. To refine your order allocation results, complete the optional Order Filters section.
For more information, see [To complete the order filters section](#):
3. In the Sorting Options section, you can optionally sort the order list.
The sorting options default is based on your set preferences.
For more information, see [Setting Demand Preferences for Supply Allocation](#).
 - a. Select one or more of these three fields to sort:

- **Sort By**
- **Then By**

Beside each field check the **Descending** box to return results in descending order instead of ascending order.

- b. To apply the sorting sequence to all orders, check the **Select All Orders** box.

The system remembers your sorting choices the next time you open this page.

4. In the Orders section, perform the following optional actions:

- a. Select a **Allocation Processing Option**.

- b. To firm each selected order line, check the **Set Order Line to Firm** box.

Quantities on lines that are firmed cannot be reallocated to other orders.

- c. To select all orders in the list, check the **Select All Orders** box.

This option limits order processing to 200 at one time to optimize allocation time.

5. Beside each line for which you want allocate an item, check the **Select** box.

6. Click **Submit**.

To complete the order filters section:

1. In NetSuite OneWorld accounts, select a **Subsidiary**.
2. Select a **Location**, or locations.
3. Select an **Item**.
4. Select a **Sales Channel**.
5. Select that **Customer**.
6. Enter an **Order No.**.
7. Select a **Transaction Type**.
8. Select the **Transaction Date From** date.
9. Select the **Transaction Date To** date.
10. Select the **Supply Required by Date From** date.
11. Select the **Supply Required by Date From/To** date.
12. Select the **Expected Ship Date From** date.
13. Select the **Expected Ship Date To** date.
14. In the **Order Priority From** field, enter the lowest customer priority number.
15. In the **Order Priority From/To** field, enter a highest customer priority number.
16. Select a **Commit Criteria**.

Kits and their components cannot be set to Do Not Commit.

To confirm order allocation status:

1. Go to Transactions > Order Management > Allocate Orders > Status.
2. Click **Refresh** to reload the list of order allocations.

Inbound Shipment in Supply Allocation

Supply Allocation includes Inbound Shipments as a source of supply for calculating purchase order supply allocations. NetSuite defines an Inbound Shipment as a trading document that lists items ordered and

received in a shipping consignment (for example, a container). This new functionality enables you to create multiple inbound shipments, each with a delivery date and receiving location for each purchase order line.

Supply allocation can assign both the inbound shipments and the purchase orders to ensure that the assigned quantities are allocated across these sources of supply. This additional source of information provides more accurate availability information about sales orders.

Inbound shipments in supply allocation handles each shipment and its related purchase order as separate sources of supply which it allocates demand orders. This enables you to do the following:

- Assign a single purchase order line into multiple supply events and allocate each event by their own date of supply.
- Direct the supply to a location other than the purchase order location.
- Commit received inventory to the allocated demand order.

NetSuite reconciles the purchase order allocations and related inbound shipments, so that:

- The purchase order supply quantity is depleted by the related inbound shipment quantities to ensure that the total available supply is not counted twice.
- The remaining order supply quantity and shipment item receipts are updated by location.
- The quantity received against the purchase order, including all shipments, is maintained on the order.

To setup Inbound Shipment for Supply Allocation, see [Enabling Inbound Shipment for Supply Allocation](#).

The Inbound Shipment Future Inventory Type is now included in the Order Allocation Strategy form.

To create an Allocation Strategy that includes Inbound Shipments as a source of supply, see [Creating Allocation Strategies](#).

Viewing Allocated Demand on an Inbound Shipment

Use the following procedure to view allocated demand on an inbound shipment.

To view allocated demand on an inbound shipment:

1. Go to Transactions > Purchases > Create Inbound Shipment > List.
2. Beside the inbound shipment you want to see, click **View**.

On the **Items** subtab, the **Allocated Demand** column displays the quantity allocated to different sources of demand. It also displays the **Expected Delivery Date** for this shipment.

3. Click the linked number to open the Allocated Demand window.

The Allocated Demand window displays the data for all allocations associated with the Inbound Shipment line:

- **Demand Type** – Work Order, Transfer Order, or Sales Order.
- **Order Number**
- **Allocated** – the number of items allocated to the work order.
- **Supply Required by Date** – the date the items need to be supplied by.
- **Days Late** – the number of days the delivery is late.

If the Expected Demand Date has not been met. The allocation process uses this date to calculate whether the allocated demand has been met on time. If this date is not met, the process displays the number of late days in the **Days Late** column.

- **Reallocated Order From** – the location the items will be reallocated from.

Finding Inbound Shipment as an Allocated Supply

Use the following procedure to find inbound shipment as an allocated supply.

To find inbound shipment as an allocated supply:

1. Go to Transactions > Sales > Enter Sales Orders > List.
2. Beside the order you want to see, click **View**.

On the **Items** subtab, the **Allocated Supply** column displays the quantity allocated to different sources of supply.

3. Click the linked number to open the Allocated Demand window.

The Allocated Supply window displays the data for all allocations associated with the Inbound Shipment line:

- **Item** – Item name or ID number.
- **Supply Type** – Inbound Shipment.
- **Order** – the order number.
- **Order Status** – To be Shipped, In-Transit, Partially Received.
- **Source** – the name or ID for the source location.
- **Supply Quantity** – the number of items supplied.
- **Supply Receipt Date** – the date the supply is expected to be received.
- **Allocated** – the number of items allocated.
- **Days Late** – the number of days the delivery is late.

Inbound Shipment Example

The following images illustrate how NetSuite allocates inventory items to the sources of demand orders when Inbound Shipment is considered a supply source.

You can create a purchase order that displays the quantity of items to supply, location to deliver the items, and expected receipt date.

In the first image, the purchase order has a quantity of 15 items in your San Francisco facility. These items are available to be allocated to the sources of demand.



Using the purchase order data, you can allocate the items to the sources of demand, work orders, transfer orders, or supply orders. After the purchase order PO is received, the quantity goes into inventory, and the inventory would be committed to the demand.

The diagram illustrates the supply allocation process. It starts with a Purchase Order table and an Inbound Shipment table. An arrow labeled "Allocation" points from the Purchase Order table to a list of three types of orders: Work Orders, Transfer Orders, and Sales Orders. Red boxes highlight the "Expected Receipt Date" and "Expected Delivery Date" fields in the Purchase Order table.

Purchase Order		Inbound Shipment - 1
Location	San Francisco	San Francisco
*Remaining quantity	15	4
Quantity available to allocate	11	4
Availability date	Expected Receipt Date	Expected Delivery Date

Allocation

- Work Orders
- Transfer Orders
- Sales Orders

The purchase order can now account for inbound shipment quantities. In this second part of the example, we add an inbound shipment. From an allocation perspective, the inbound shipment is seen as a new source of supply. The inbound shipment expected delivery date represents the date for the expected supply.

The original purchase quantity available to allocate of 15 is reduced by the inbound shipment quantity of 4. This resulting available quantity to allocate is now 11. The allocation process now considers two sources of supply which may affect the source of supply for the demand orders.

Supply allocation now enables you to receive inbound shipments to multiple locations. This means that the allocation process will have to consider multiple sources of supply from different locations. The following third part of the example illustrates this:

The diagram illustrates the supply allocation process for a purchase order with two inbound shipments. It starts with a Purchase Order table and two Inbound Shipment tables. An arrow labeled "Allocation" points from the Purchase Order table to a list of three types of orders: Work Orders, Transfer Orders, and Sales Orders. Red boxes highlight the "Expected Receipt Date" and "Expected Delivery Date" fields in the Purchase Order table.

Purchase Order		Inbound Shipment - 1	Inbound Shipment - 2
Location	San Francisco	San Francisco	Santa Cruz
*Remaining quantity	15	4	3
Quantity available to allocate	8	4	3
Availability date	Expected Receipt Date	Expected Delivery Date	Expected Delivery Date

Allocation

- Work Orders
- Transfer Orders
- Sales Orders

You have received a second inbound shipment for this purchase order. This new shipment is coming to the Santa Cruz facility bringing a further 3 items. This reduces the purchase order quantity available to allocate to 8 items.

Supply Allocation Order Management

NetSuite Supply Allocation Order Management groups related features into one category. To access the order management category, go to Transactions > Order Management.

To enable the Supply Allocation Order Management Dashboard, see [Enabling Supply Allocation](#).

The following topics are available in the Order Management navigation section:

- [Order Management Dashboard](#)
- [Order Reservations](#)

- Enter Order Reservations
- Approve Order Reservations

Order Management Dashboard

The Order Management Dashboard provides a single workspace where you can review KPIs, allocations, and monitor alerts and processes to align existing supply to demand. The dashboard consists of the following sections:

- [Order Management Dashboard Links](#)
- [Order Scorecard](#)
- [Order Operations by Channel](#)
- [Sales Order Allocation Alerts](#)
- [Allocation Automation Status](#)

The Order Management Dashboard consists of adaptable tiles that you can expand or collapse to move within the dashboard:

- Click a tile header to expand or collapse that tile.
- Click and hold a tile to drag it to another position.

[The Order Management Dashboard](#)

Order Management Dashboard Links

The Order Management Dashboard Links section displays the following sections and its links:

- **Channel Management**
 - Reserve Supply with Order
 - Reservation
- **Exceptions Management**
 - View and Fix Allocation Alerts
 - Allocate Orders Now
 - Schedule
 - Reallocate Items with Current Inventory
- **Automation**
 - View Allocation Schedule
 - View Allocation Automation Status

To locate an order management link, enter the name in the **Find Link** field.

Click a link to open parent page. For example, click the Schedule link to open the Order Allocation Schedule page.

To remove the Order Management Dashboard Links tile, click the menu icon (⋮), and then click Remove.

Order Scorecard

The Order Scorecard displays Key Performance Indicators (KPI) such as Average Inventory, Inventory Value, Inventory Turnover for Period, Sales Order (volume), and Fill Rate. The new Fill Rate KPI metric

measures how well the order is being fulfilled on time. It helps you to understand how well you are delivering orders on time to meet customer demand.

Click the trend graph icon () to open the Trend Graph popup window.

Click a number link to open a summary page.

Click the Order Scorecard menu icon  to set up, customize, export, or remove the scorecard. You can also refresh the scorecard data.

Order Operations by Channel

The Order Operations by Channel tile provides an overview of supply allocations by sales channel. When sales channel allocation is enabled, data is collected from sales orders in the last and the current quarter. This tile displays a summary of sales orders in different channels. For example, potential revenue from sales, whether the gross profit feature is enabled, or profit by channels.

Select a **Location**, or All locations, to define which sales channels you want review.

Click a **Sales Channel** link to open the sales channel page to see more detailed information.

Click the Order Operations by Channel menu icon  to set up, reset, customize, or remove the scorecard. You can also refresh the channel data or click the Maximize icon () to view this tile in full screen mode.

Sales Order Allocation Alerts

The Sales Order Allocation Alerts section displays allocation issues that help you understand potential order delivery obstacles.

Use the **Earliest Supply Required by Date** tool to customize how you want to view allocation alerts. You can also select which **Sales Channel** alerts you want to display.

Click a link in the Customer column to open the order you want to act on. For more information, see [Supply Allocation Exceptions Management](#).

Click the Sales Order Allocation Alerts menu icon  to set up, reset, edit, or remove, the scorecard. You can also refresh the displayed alerts or click the Maximize icon () to view this tile in full screen mode.

Allocation Automation Status

The Allocation Automation Status section enables you to monitor the automated supply allocation processes over the past seven days. Use this section to monitor orders that are being processed.

Click the **Submission ID** to open the Allocation Automation Status page.

Click the Allocation Automation Status menu icon  to set up, reset, customize, or remove, the scorecard. You can also Refresh the displayed status or click the Maximize icon () to view this tile in full screen mode.

Earliest Item Availability

The Supply Allocation Earliest Item Availability page computes item and location level availability information based on simulated allocations. The system then populates the computed availability date to provide answers to item availability inquiries regarding future demand.

Earliest Item Availability is now compatible with Sales Channel Allocation. This improves the earliest availability calculation by leveraging the allocation process to allocate supplies set aside for sales channels.

The Earliest Item Availability page enables you to:

- Quickly identify item availability across all inventory holding locations.
- Check on item availability anytime, accounting for existing allocation.
- Enter an item and quantity to compute the earliest available date for all locations that handle inventory.
- Compute and display key quantity data, such as current and future inventories and existing allocations for all available locations.
- Apply rules to the date calculation by selecting multiple strategies. For example, current inventory only or include future inventory already shipped.
- Available dates and quantities are computed based on the quantity of supplies set aside for each sales channel.

Reviewing Earliest Item Availability

The Supply Allocation Earliest Item Availability page displays answers to item availability inquiries regarding future demand.

To review earliest item availability:

1. Go to Transactions > Order Management > Earliest Item Availability.
2. Select a **Subsidiary**.
3. Select the **Item** you want to display availability for.
The locations holding inventory are displayed and the related columns are populated.
4. To filter your item availability, select a **Sales Channel**.
To display the available supply pool, leave the field empty.
5. Enter the number of items you need in the **Quantity** field.
If the displayed Earliest Available Dates dates do not match your required date, enter a lower quantity, and review other locations for available inventory.
6. To apply rules to the date calculation, select an **Allocation Strategy**.
7. If your allocation strategy has an allocation period, select a **Supply Required by Date**.
This period can be before or after Supply Required By Date.
8. Click **Save**.

To reserve an order:

1. Go to Transactions > Order Management > Enter Order Reservations > List.
2. Beside the reservation you want to approve, click **Edit**.
3. Click **Approve**.

For more information, see [Order Reservations](#).

Order Reservations

An order reservation enables you to set aside multiple sources of supply for a specific group of future demands. This helps you to ensure that supplies are saved for high priority customers. You can use order

reservations to automatically save supplies for anticipated demand by item, location, a period, and a sales channel. You can further allocate supply on an order reservation to sales orders with the same channel only.

The allocated quantity on order reservations cannot be updated either in NetSuite or by CSV Import. Allocated quantity is updated only when you save a reservation, create a supply transaction, or run an allocation batch.

After a reservation is created, it must be approved. After it is approved, the reservation is effective until:

- Its end date
- The reservation quantity is fully allocated and fulfilled
- The reservation is manually closed

While the reservation is effective:

- You can set aside inventory and future supplies by allocating them to the order reservation.
- The reservation allocation strategy determines which sources of supply can be set aside.

You can allocate channel sales orders based on what is set aside by channel order reservations. The order reservation can be automatically closed at its end date.

To define the timing of this background process, see [Setting Demand Preferences for Supply Allocation](#).

To use order reservations:

1. Go to Setup > Accounting > Accounting Preferences.
2. On the **Approval Routing** subtab, check the **Order Reservations** box.
When the box is clear, the order reservation is automatically approved.
3. Click **Save**.

To create an order reservation saved search:

1. Go to Lists > Search > Saved Searches > New.
 2. In the New Saved Search window, click **Transaction**.
 3. Complete the main section.
 4. In the **Criteria** tab **Filter** list, select **Type**.
 5. In the **Saved Transaction Search** popup window, select **Order Reservation**.
 6. Click **Set**.
 7. In the **Results** subtab **Columns** tab, select Title.
Add more result fields as necessary.
 8. Click **Save & Run**.
- You can click Preview to view your results.

To enter an order reservation:

1. Go to Transactions > Order Management > Enter Order Reservation.

2. Complete the Primary Information section:

The reservation **ID** field is automatically filled but you can enter a different number.

- a. Enter an order reservation **Name**.
- b. If it is available, select a **Subsidiary**.
- c. Select the **Item** you want to reserve supplies for.
- d. Select the **Sales Channel** associated with this item.
- e. Select the order reservation **Location**.

The **Order Priority** is automatically populated based on the priority defined in the selected Sales Channel.

3. Complete the Allocation Details section:

- a. Select an **Order Allocation Strategy**.
- b. To hold the supply quantity, check the **Commitment Firm** box.
- c. To define an effective date for the order reservation, enter **Start** and **End Dates**.
- d. To display current and future inventory allocated to demand through the reservation, enter the order reservation **Transaction Date**.

4. Complete the Request Details section:

- a. Enter the **Quantity** of items you want to reserve.
Allocated Demand supply lines display the current and future inventory allocated to demand through the reservation.
- b. Enter the number of **Units** to be reserved for this order.
Allocated Supply demand lines display the quantity that is fulfilled by future supply or current inventory.
Quantity Committed displays the current number of units committed to the reservation.
- c. If approval routing is enabled, select an **Approval Status**.
Then select the **Next Approver** in the order reservation workflow.
- d. Enter the **Target Quantity** of items you want to reserve.
Days Late displays how late receipt date is compared to the order reservation start date.
- e. To close the order reservation without reserving the item, check the **Closed** box.

5. Click **Save**.

6. Click the **Supply Allocation** subtab.

When you have allocated inventory to an order reservation, this subtab displays the quantities committed and allocated:

- **Supply Type:**
 - Purchase Order
 - Inventory
 - Inbound Shipment
 - Transfer Order
 - Blanket Purchase Order
 - Work Order
- **Supply Order** number
- **Supply Order Status**
- **Supply Source**

- **Supply Quantity**
 - **Supply Receipt Date**
 - **Days Late** – displayed if the receipt date is later than the order reservation start date.
 - **Allocated** – quantity allocated to the reservation.
 - **Demand Type**
 - **Supply Required by Date**
7. Click the **Fulfillment** subtab.
- When a sales order is partially or fully fulfilled, the fulfillment details appear on this subtab.
- **Fulfillment Number**
 - **Transaction Date**
 - **Type** – fulfillment type
 - **Fulfillment Status** – picked, packed, or shipped.
 - **Quantity** – the fulfilled and allocated quantity are both counted toward the reservation quantity.
- After a sales order is partly allocated by an order reservation and then fulfilled at full quantity, the list of fulfilled sales orders updates.
- To approve an order reservation:**
1. Go to Transactions > Order Management > Approve Order Reservations.
 2. On the Approve Order Reservation page, use the filters to refine your order reservation results:
The default is **View**.
 - a. Select the **Item**, or items, you want to approve.
 - b. Select a **Subsidiary**.
 - c. Select a **Location**.
 - d. Select a **Sales Channel**.
 - e. Select a **Start Date**.
 - f. Enter **From** and **To** dates.
 3. To approve an order reservations, check the **Select** box beside the order reservation, or reservations.
Clear the box to not approve a reservation.
 4. Click **Submit**.

Defining a Sales Channel Allocation

NetSuite lets you manage order to cash transactions by channel. You can save a specified amount of inventory and future supplies and allocate them to sales orders in these channels. A sales channel is a category of sales transaction that you can differentiate by customer type and distribution channel, such as web-shop or retail outlet.

The Sales Channel Allocation feature enables you to do the following:

- Define sales channel records to represent your organization's multi-channel sales hierarchy.
- You can select sales channels you have defined for sales orders and other order to cash transactions that use sales channels.

- You can use sales orders with a designated channel for sales reporting, allocation exception reporting, selective batch allocation, and batch re-allocation.
- Enter order reservations for each sales channel.

To define a sales channel allocation:

1. Go to Setup > Order Management > Sales Channel > New.
2. If you do not want this sales channel to appear in saved search or transaction, check the **Inactive** box.
3. Enter a sales channel **Name**.
4. Enter a **Description** for this sales channel.
5. Enter an **Order Priority** number to designate the sales channel priority.
6. To use supplies reserved for this sales order in this channel, check the **Can Only use Dedicated Order Reservations as Supply** box.
Clear this box to use other source allocations that are not assigned to other sales channels.
7. Click **Save**.

Order Management Process with Sales Channels

The Sales Channel Allocation feature enables planners to save inventory and future supplies to sales orders in these channels. Order reservation works as a virtual container that enables you to save multiple sources of supply for a specific group of future demands.

Supplies are set aside by the means of allocations to order reservations. The allocations are governed by the allocation strategy assigned to each reservations. This helps you to ensure that supplies are saved for high priority customers.

Assign Opportunities and Estimates to a Sales Channel

NetSuite lets you create an opportunity record to indicate sales items your customers are interested in. For more information, see the help topic [Creating an Opportunity Record](#).

In NetSuite, you can create an estimate and then print, email, or fax it to your customer. Then when your customer accepts it, you can make any necessary changes and convert it to a sales order, invoice, or cash sale. For more information, see the help topic [Preparing an Estimate](#).

Assign Sales Orders and Cash Sales to a Sales Channel

When you create a sales order, cash order, or an invoice, you can specify a sales channel to use for the order. The system can then report orders by sales channel.

If an order was converted from an opportunity or an estimate, the sales channel field is automatically populated.

Reallocate Supplies Between Reservations and Channel Sales Orders

To identify which sources the target order can reallocate supply from, clear the target order **Can Only Use Dedicated Order reservation As Supply** box. The customer order line then appears as a target order.

NetSuite provides suggested target orders sources you can take existing allocations from, such as order reservations and sales orders. After you accept a recommendation, the reallocations are executed and the order is fully allocated.

Supply Order Allocated Demand

NetSuite helps you to check that supply lines are not allocated to sales orders when a supply order has an allocation to an order reservation. The Allocated Demand popup window displays the following information:

- The order reservation number and allocated quantity.
- The sales order number, allocated quantity, and order reservation number.

Supply Order Allocated Supply

When a sales order has channel-bound allocations, the Allocated Supply popup window displays the following information:

- The source of supply, quantity, allocated quantity, and supply date for each allocation.
- The order reservation from which the supply line was allocated to the sales order.

Sales Channel Reporting

NetSuite enables you to produce reports that display order to cash transactions by product group and by sales channel. This information helps you to manage your available supplies. Creating order to cash reports by sales channel provides insight into your multi-channel sales operation. All order to cash reports display sales channel information from sales transactions. A channel is a category of orders that can be differentiated by customer type or distribution channel, such as web-shop or retail outlet. For example, you can view reports for sales by channel, backorders by channel, item profitability by channel, or ad-hoc lists by channel.

Saved Search by Sales Channel

You can also add a sales channel to a custom search based on transaction records. For example, in the beginning of the new year, you may want to review pre-holiday orders that require immediate attention.

SuiteAnalytics Supply Chain Workbook

SuiteAnalytics Workbook offers many workbooks and dataset templates, each with a predefined source data, criteria, pivot tables, and charts.

This section contains information for the SuiteAnalytics Supply Chain workbooks in NetSuite. For more information about SuiteAnalytics workbooks, see the help topic [SuiteAnalytics Workbook Overview](#).

Supply Chain Dataset

This dataset combines fields from the Supply Chain Snapshot record type, how it is configured and why it uses the selected record types and fields. It forms the source data for the [Supply Chain Workbook](#).

 **Note:** There is a Supply Chain Simulation record type that is not part of any pre-configured dataset. See fields in the Key Field Differences section.

Dataset Configuration

The Supply Chain Workbook dataset combines fields from one record type, one custom formula, and multiple criteria filters. To edit the dataset, see the help topic [Editing a Dataset](#).

Root Record Type	Joined Record Types	Custom Formula Fields	Data Grid	Criteria Filters
Supply Chain Snapshots	Item Supply Chain Snapshot Details	The following custom formula fields are included in the dataset: CASE WHEN { supplychainsnapshotdetails.demandquantity} > 0 THEN 'Demand' ELSE 'Supply' END	The following fields are included in the dataset. Supply Chain Dataset: <ul style="list-style-type: none"> ■ Date ■ Days Past Due ■ Demand Quantity ■ Item ■ Location ■ Source Type ■ Supply Quantity ■ Transaction ■ Transaction Type ■ Line Type (Formula) 	The Supply Chain Snapshot Details: Source Type is Past-due Transaction criteria is used to filter the dataset.

For more information, see the help topic [Dataset Templates](#).

Supply Chain Workbook

This workbook is based on the Supply Chain Workbook dataset and introduces the analytics transactions concept for supply chain specific transactions.

For more information, see the help topic [Workbook Templates](#).

Pivot Tables

This workbook contains the following pivot tables:

- **Purchase Orders Past Due** displays purchase orders that are late and have not been received.
- **Sales Order Shipment Past Due** displays sales orders that are late and have not been received.
- **Transfer Order Receipt Past Due** displays transfer orders that are late and have not been received.
- **Transfer Order Shipment Past Due** displays transfer orders that are late and have not been shipped.
- **Work Order Build Past Due** displays work orders that have not been built.

FEFO Lot Assignments

The FEFO (First Expiry First Out) Lot Assignments SuiteApp manages the process of optimal lot assignment to sales order line items. The lot assignment happens either on a first expiry first out (FEFO) or a first in first out (FIFO) basis. If the item is expiry date controlled, the assignment takes place on FEFO basis, else on FIFO basis.

Using this SuiteApp, you can mark each location to use either of the following modes:

- **Commit and Assign** – Commit and assign lots to sales order line items automatically at a scheduled interval using a schedule script. You can also assign lots manually from the Add Lot Assignments

page. This assignment is made taking into account customer shelf requirements and minimum order fulfillment needs.

- **Assign Lots on Order Fulfillment** – Assign lots and fulfill orders through UI, CSV import, or web services.

You can also use the SuiteApp to automatically assign inventory to cash sale transactions that you import using CSV files.

 **Note:** The FEFO Lot Assignments SuiteApp supports translation. However, the following user interface elements are not translatable:

1. The following center links in Lists > FEFO Lot Assignments:
 - Preferences
 - Add Lot Assignments
 - Remove Lot Assignments
 - Assign and Fulfill Orders
 - CSV Import – Assign and Fulfill Orders
2. Character encoding list values on the CSV Import – Assign and Fulfill Orders page.
3. The first item in the subsidiary list on the following pages:
 - Add Lot Assignments
 - Remove Lot Assignments
 - Assign and Fulfill Orders
 - FEFO Lot Assignment Messages Report

To select your language preference, see the help topic [Setting Language Preferences](#).

FEFO Lot Assignments Terminology

The following terms are used in FEFO Lot Assignments SuiteApp:

- **Lot assignment** – The process of assigning lots to a sales order line item. Lot assignment applies to only lot numbered items.
- **First Expiry First Out (FEFO)** – Lots with earliest expiry date are first assigned to sales order line items.
- **First In First Out (FIFO)** – Lots that are input first are assigned first.
- **Required shelf life** – Minimum number of days that an item is expected to stay on customer's shelf before being consumed or sold. Required shelf life can be set at item level as well as at customer item level. If it is defined at both places, the required shelf life defined at the customer item level is used.
- **FEFO Shelf life group** – Minimum number of days that each associated item in the group is expected to stay on customer's shelf before being consumed or sold.
- **Commit group** – The number of days prior to the sales order's ship date when the SuiteApp makes the first attempt of lot assignment.
- **Minimum fulfillment percentage** – The minimum quantity that should be available for assigning lots to a sales order line item. This percentage is set at customer level and applies only to lot assignment at the locations marked as commit and assign in the FEFO Lot Assignments preferences.

FEFO Lot Assignments and Supply Allocation Feature

The FEFO Lot Assignments SuiteApp works in parallel with the supply allocation feature for inventory and assembly item types. When using the SuiteApp to commit and assign lots, use the supply allocation feature for commitments for all items, except lot items for selected locations configured to commit assign mode.

When using the SuiteApp for assigning lots and fulfilling orders, use the supply allocation feature for committing items for locations configured in assign lots on order fulfillment mode. For lot items, automatic lot assignment takes place at the time of fulfillment.

Commit and Assign Lots

When a location is marked as commit and assign, the SuiteApp performs the following tasks on the sales order line items for that location:

- Allocates inventory to customer sales orders desired number of days prior to shipment. Enables allocating slower moving items earlier and faster moving items closer to the ship date.
- Meets customer-specific shelf life requirements. Customer-specific shelf life requirements relate to the minimum number of days of shelf life that an item should have upon receipt by a customer.
- If the items are expiry date controlled, allocates item lots on a FEFO basis to reduce instances of item lots going past their expiry date. If the items are not expiry date controlled, allocates item lots on a FIFO basis.
- The lot allocation script delivered with the SuiteApp recurs to assign lots to sales order line items.

For more information, read [Commit and Assign Lots](#).

Assign Lots on Order Fulfillment

For a location, if you select the Assign Lots on Order Fulfillment preference, you can automatically assign lots at the time of fulfillment using one of the following options:

- From the Assign and Fulfill Orders page
- From the view mode of the sales order.
- From the CSV Import Assign and Fulfill Orders page
- Using web services integration

For more information, read [Assigning Lots on Order Fulfillment](#).

Criteria for Commitment and Lot Assignment

Commitment and lot assignment in this mode works on the following criteria:

- For lot numbered items, the SuiteApp commits and assigns lots. For nonlot items, the SuiteApp makes only commitments.
- The **Location** field, if available at line level of a sales order, must not be empty.
- The SuiteApp assumes that the sales order always aligns with the corresponding item fulfillment record. If you fulfill less than the committed quantity, then you must also make allocation manually based on the expiry date.

- If Intercompany Cross-Subsidiary Fulfillment feature is enabled, a value is required in the **Inventory Location** column at line level.
- When assigning lots on order fulfillment, the SuiteApp does not consider commit days and minimum fulfillment percentage.
- Sales order line items that have the **Commitment Confirmed** box checked are not committed by the SuiteApp.
- Sales orders that have only one of the following statuses are considered for commitment and lot assignment:
 - Pending Fulfillment
 - Pending Billing/Partially Fulfilled
 - Partially Fulfilled
- If the **Expiry Date Required** box for an item is checked, you must add expiration date to the lots of that item.
- For kit items, the committed quantity is displayed as a whole number on the sales order page.
- When order quantity and lot quantity have different units, a conversion of units take place. In such case, the SuiteApp considers the converted values up to 4 decimal places.

The following video gives you an introduction to the FEFO Lot Assignments SuiteApp.



The following video gives you an introduction to the assign lots on order fulfillment mode of FEFO Lot Assignments SuiteApp.



The following video explains the scenarios in the commit and assign mode using the FEFO Lot Assignments SuiteApp.



Setting Up FEFO Lot Assignments

FEFO Lot Assignments is a managed SuiteApp that automatically updates whenever enhancements or new features are added.

This section covers the following setup topics:

- [Installing FEFO Lot Assignments](#)
- [Creating or Customizing Roles and Permissions to Use FEFO Lot Assignments](#)
- [Adding Center Category and Center Types](#)
- [Prerequisites for Using FEFO Lot Assignments](#)
- [FEFO Lot Assignments Preferences](#)

Installing FEFO Lot Assignments

Only users with Administrator role can install the SuiteApp. Following are the bundle details:

- Bundle name: FEFO Lot Assignments
- Bundle ID: 279508

For more information on installing a bundle, see the help topic [Installing a Bundle](#).

When you install the SuiteApp for the first time or upgrade from a SuiteApp version lower than 2.00.0.a, the following changes take place:

- The SuiteApp creates FEFO Lot Assignment preferences for each location and configures the preferences to commit and assign mode. You may later update the preferences for each location.
- The SuiteApp checks lots of the existing lot numbered items. If all the lots of an item have an expiration date, then the SuiteApp checks the **Expiry Date Required** box for the item. If one or more lots do not have the expiration date set, then it does not check the **Expiry Date Required** box for the item.

Prerequisites for Installing FEFO Lot Assignments

The FEFO Lot Assignments SuiteApp is developed and tested for use primarily with NetSuite OneWorld. For more information about NetSuite OneWorld, see the help topic [Introduction to NetSuite OneWorld](#).

To use the FEFO Lot Assignments SuiteApp, enable the following features:

Subtab	Feature Name
Items & Inventory	<ul style="list-style-type: none"> ■ Supply Allocation ■ Advanced Bin/Numbered Inventory Management ■ Serialized Inventory
SuiteCloud	<ul style="list-style-type: none"> ■ Custom Records ■ Client SuiteScript ■ Server SuiteScript

You must also disable the **Sales Channel Allocation** feature from the **Items & Inventory** subtab.

For more information, see the help topic [Enabling Features](#).

Supported Browsers for FEFO Lot Assignments SuiteApp

The FEFO Lot Assignments SuiteApp supports the following browsers and operating systems:

Browser	Platform
Google Chrome 71 or newer	<ul style="list-style-type: none"> ■ Windows 10 ■ Windows 8.x ■ Windows 7
Microsoft Edge (Anniversary Update and later)	Windows 10 (Anniversary Update)
Mozilla Firefox 60 or newer	<ul style="list-style-type: none"> ■ Windows 10 ■ Windows 8.x ■ Windows 7 ■ Windows Vista

Creating or Customizing Roles and Permissions to Use FEFO Lot Assignments

If you are an administrator, you can create new roles or customize roles for using the FEFO Lot Assignments SuiteApp. For more information, see the help topics [Assigning Roles to an Employee](#) and [Customizing or Creating NetSuite Roles](#).

Refer to the following table for minimum access levels for different permissions required to use the FEFO Lot Assignments SuiteApp:

Subtab	Permission	Minimum Access Level	Purpose
Transactions	Find Transaction	Edit	Required for the following pages: <ul style="list-style-type: none">■ Add Lot Assignments■ Remove Lot Assignments■ Assign and Fulfill Orders■ CSV Import – Assign and Fulfill Orders
	Item Fulfillment	Edit	Required for Assign and Fulfill Orders page and CSV Import – Assign and Fulfill Orders page.
	Sales Order	Edit	Required for the following pages: <ul style="list-style-type: none">■ Add Lot Assignments■ Remove Lot Assignments■ Assign and Fulfill Orders■ CSV Import – Assign and Fulfill Orders
	Cash Sale	Edit	Required for CSV Import – Cash Sale page
Lists	Documents and Files	View	Required for all pages.
	Locations	View	Required for all pages.
	Items	View	Required for all pages.
	Subsidiaries	View	Required for all pages.
	Customers	View	Required for all pages.
Setup	SuiteScript	Edit	Required for all pages.
	Order Allocation Strategy	View	Required for all pages.
	Import CSV File	Edit	Required for the following pages: <ul style="list-style-type: none">■ CSV Import – Assign and Fulfill Orders■ CSV Import – Cash Sale
	FEFO Lot Assignment Preferences	View	Required for all pages.
Custom Records	Commit Group	View	Required for Commit Group custom record.
	Shelf Life Group	View	Required for Shelf Life Group custom record.
	Customer Shelf Life Group	View	Required for Customer Shelf Life Group custom record.
	FEFO Lot Assignment Preferences	View	Required for all pages.



Note: Assigning and fulfilling lots through web services integration require the same permissions as the Assign and Fulfill Orders page.

To access different pages in the SuiteApp, add the roles as audience to the script deployments as listed in the table below:

Page Name	Script Deployment
Add Lot Assignments	customdeploy_fefo_sl_add_alloc_commits
Remove Lot Assignments	customdeploy_fefo_sl_rem_alloc_commits
CSV Import – Assign and Fulfill Orders	customdeploy_fefo_sl_csv_import
CSV Import - Cash Sale	customdeploy_fefo_sl_csv_cashsale
Messages Report	customdeploy_fefo_sl_reportpage
Assign and Fulfill Orders	customdeploy_fefo_sl_allocate_n_fulfill

For more information, see the help topic [Defining Script Audience](#).

Adding Center Category and Center Types

For a custom role, you can add the FEFO Lot Assignments center category and links. Use the following information when creating the center category:

- **Center category label** – Label the center category as **FEFO Lot Assignments**.
- **Center Type** – Select the desired center type.
- **Center Tab** – Select the desired center tab.
- Add the following links:

Link	Label
FEFO Shelf Life Group	FEFO Shelf Life Groups
Commit Group	Commit Groups
Add Lot Assignments	Add Lot Assignments
Remove Lot Assignments	Remove Lot Assignments
Assign and Fulfill Orders	Assign and Fulfill Orders
CSV Import – Assign and Fulfill Orders	CSV Import – Assign and Fulfill Orders
CSV Import – Cash Sale	CSV Import – Cash Sale
Messages Report	Messages Report
Preferences	Preferences

For more information, see the help topics [Creating Center Categories](#) and [Creating Center Links](#).

Prerequisites for Using FEFO Lot Assignments

The following are the prerequisites for using the FEFO Lot Assignments SuiteApp:

Feature	Access	Prerequisite
Supply Allocation Setup	Setup > Order Management > Supply Allocation	<ul style="list-style-type: none"> ■ Clear the Perform Supply Allocation After Transaction Entry, Update or Delete box ■ The sorting sales of orders for lot allocation depends on the sorting configuration set in the Supply Allocations Setup page.
Location	Setup > Company > Classifications > Location	For each location record, check the Make Inventory Available box.

Feature	Access	Prerequisite
		When you create the location from Setup > Company > Classifications > Locations > New, this box is checked by default. However, if you create a location from a sales order or some other record, you must explicitly check the box.
Items	Lists > Accounting > Items	The value in ATP Lead Time field must be set to 0 for lot numbered items. On SuiteApp installation, this field is set to 0 for all lot items.
Order Allocation Schedules	Transactions > Order Management > Allocate Orders > Schedule	For lot numbered items that have location configured to commit and assign mode, do not use order allocation schedule. For addressing only nonlot and other item types, choose the Select Orders Using a Saved Search option and then select FEFO_customsearch in the Saved Search list. When using a different saved search, make sure the saved search filters line items containing lot numbered items for the locations marked as commit and assign. For other locations, select all sales order line items.
Allocate Orders and Reallocate Items	<ul style="list-style-type: none"> ■ Transactions > Inventory > Allocate Orders. ■ Transactions > Order Management > Reallocate Items 	Do not add line items containing lot numbered items for locations set with Commit and Assign mode.



Note: When using FEFO Lot Assignments, you must **not** use the standard NetSuite Allocate Orders and Reallocate Orders pages, accessible from Transactions > Order Management.

FEFO Lot Assignments Preferences

FEFO Lot Assignments preferences are set separately for each location. Following are the preferences:

Preference	Description
Location	Select the location for which you want to apply the FEFO lot assignments preferences.
Assign Lots on Order Fulfillment	<p>Check this box to assign lots on order fulfillment for orders for the selected location.</p> <p>If this box is not checked, the SuiteApp commits and assigns lots for orders for the selected location.</p>
Validate Expiry Date when Fulfilling from UI	<p>Check this box to validate the expiry date on lots when fulfilling sales order line items from the following:</p> <ul style="list-style-type: none"> ■ Assign and Fulfill Orders page ■ Assign & Fulfill Orders button in the view mode of the sales order <p>This check box is available only when Assign Lots on Order Fulfillment box is checked.</p>
Validate Expiry Date when Fulfilling from CSV or Web Services	<p>Check this box to validate the expiry date on lots when fulfilling sales order line items using the following:</p> <ul style="list-style-type: none"> ■ CSV Import - Assign and Fulfill Orders page ■ Web services integration

Preference	Description
	This check box is available only when Assign Lots on Order Fulfillment box is checked.

Note: If you do not want a preference record for a location, you should delete the record. You must not make the record inactive.

Commit and Assign Lots

If a location has **Assign Lots on Order Fulfillment** option not selected in the FEFO Lot Assignments preferences, following is the workflow:

Task	Help Topic
Create FEFO shelf life groups	Creating FEFO Shelf Life Groups
Create commit groups	Creating Commit Groups
Assign commit groups and FEFO shelf life groups to items	Assigning Commit Groups and FEFO Shelf Life Groups to Items
(Optional) Create FEFO customer shelf life groups	Creating FEFO Customer Shelf Life Groups
(Optional) Set minimum fulfillment percentage for a customer	Setting Minimum Fulfillment Percentage for a Customer
Schedule the lot assignments script	Lot Assignments Script

Creating FEFO Shelf Life Groups

A FEFO shelf life group contains the minimum shelf life days that each associated item must have at the time of delivery. A FEFO shelf life group is defined at item level.

To create a FEFO shelf life group:

1. Go to Lists > FEFO Lot Assignments > FEFO Shelf Life Groups > New.
2. In the **FEFO Shelf Life Group Name** field, enter the name of the FEFO shelf life group.
3. In the **Required Shelf Life Days** field, enter the number of days before the inventory can be allocated to the line item on a sales order.
4. Click **Save**.

Creating Commit Groups

A commit group lets you define the number of days before the sales order's ship date when the SuiteApp makes a lot assignment attempt. Commit group ensures item assignment does not take place too far in advance of an order's ship date. If commit group is set to zero on the item, then the assignments take place only on the day of shipment. If you do not define a commit group, then assignments take place in the next script run. Commit group is applicable to lot assignments at locations marked as commit and assign.

To create a commit group:

1. Go to Lists > FEFO Lot Assignments > Commit Groups > New.

2. In the **Commit Group Name** field, enter the name of the commit group.
3. In the **Days Before Shipment** field, enter the number of days of shelf life.
4. Click **Save**.

Assigning Commit Groups and FEFO Shelf Life Groups to Items

Assign the commit groups and FEFO shelf life groups to lot-numbered inventory items from the **Assignments** subtab of the item record.

To assign a commit group and a FEFO shelf life group to an item:

1. Go to List > Accounting > Items.
2. On the Items list page, click **Edit** on the item to which you want to add a commit group and a FEFO shelf life group.
3. On the Items page, click the **Assignments** subtab.
4. From the **Commit Group** list, select the commit group.
The commit days for that commit group displays in the adjacent **Days Before Shipment** field.
5. From the **FEFO Shelf Life Group** list, select the FEFO shelf life group.
The value of required shelf life days for that FEFO shelf life group displays in the adjacent **Required Shelf Life Days** field.
6. Click **Save**.

Creating FEFO Customer Shelf Life Groups

A FEFO customer shelf life group is the FEFO shelf life group defined at customer level. Required shelf life days in the FEFO customer shelf life group take precedence over the required shelf life days in the FEFO shelf life group for the item.

To create a FEFO customer shelf life group:

1. Go to List > Relationships > Customers.
2. On the Customers List page, click **Edit** on the customer to which you want to add the FEFO customer shelf life group.
3. On the Customer page, click the **Shelf Life** subtab.
4. Click **New FEFO Customer Shelf Life Group**.
The FEFO Customer Shelf Life Group page opens.
5. From the **FEFO Shelf Life Group** list, select the FEFO shelf life group.
6. In the **Required Shelf Life Days** field, enter the number of shelf life days.
7. Click **Save**.

Setting Minimum Fulfillment Percentage for a Customer

You can set the minimum fulfillment percentage for assigning lots at customer level.

To set the minimum fulfillment percentage for a customer:

1. Go to List > Relationships > Customers.
2. On the Customers List page, click **Edit** on the customer to which you want to set the minimum fulfillment percentage.

3. On the Customer page, click the **FEFO Shelf Life** subtab.
4. In the **Minimum Fulfillment %** field, enter the minimum fulfillment percentage.
5. Click **Save**.

Lot Assignments Script

For locations marked as commit and assign, the SuiteApp enables administrators to deploy a script that automatically assigns lots to sales order line items at a scheduled time. The script name is **FEFO_MR_Lot_Allocation**. The administrator can set a schedule for the script to automatically assign lots to sales order line items. By default, the script is scheduled to run every 24 hours.

At each run, the script performs the following operations:

1. For locations set commit and assign mode, the script reads all sales order lines with lot items having backordered quantity greater than zero on approved sales orders.
2. Processes the sales order line items and makes lot allocations using the following formula:
 - Expected Ship Date – Commit Group Days <= Current Date
 - Backordered Quantity > 0
 - Ship Date + Customer Required Shelf Life Days <= Lot Expiry Date



Note: If customer required shelf life days is not available, then the SuiteApp considers the required shelf life days set for the item.

At the scheduled run, the script considers the following additional criteria:

- The script reads lot numbered line items with backordered quantity greater than 0 on approved sales orders.
- The script considers lot numbered line items with ship dates within the commit days from the current date.
- The script considers only inventory on hand. It does not consider planned supply or future inventory.
- For lot assignment, if the **Expiry Date Required** box is checked for the item, then the script assigns lots following First Expiry First Out (FEFO), after considering required shelf life days. If the **Expiry Date Required** box is not checked for the item, then the script assigns lots following First In First Out (FIFO).
- For lot assignment, the script considers minimum fulfillment percentage. However, if the selected allocation strategy has **Allocation Quantities** set to **Complete Quantity**, the script considers minimum fulfillment percentage as 100%.
- The sequence of allocation is done according to the sort order defined in the Supply Allocation Setup page.
- The script allocates only unfulfilled sales orders.
- The script does not allocate more than the order quantity.
- If picked quantity is greater than the sum of committed and fulfilled quantity, the lot allocation script does not consider that line item for lot allocation.

Updates to Sales Orders on Lot Assignment

After the lot assignment script makes assignments, you see the following updates in the sales orders:

- Commitments display in the **Committed** column in the **Items** sublist of the sales order.
- Lot assignment quantity displays in the **Allocated** column of the sales order lines items. If you click the icon in the **Inventory Detail** column, you see the assigned lot numbers in the Inventory Detail window.

Adding Lot Assignments Manually

The lot assignments script runs at a scheduled interval. To make lot allocations at any time and to selected sales order line items, go to the Add Lot Assignments page.

To add lot assignments manually:

1. Go to Lists > FEFO Lot Assignments > Add Lot Assignments.
The Add Lot Assignments page opens.
2. In the **Order Number** field, enter the sales order number.
3. (Optional) If you do not have the sales order number, you can filter the sales orders using the following lists:
 - Subsidiary
 - Customer
 - Location
 - Ship Date
4. (Optional) To include nonlot items, check the **Include Non-Lot Items** box.
If you check this box, the SuiteApp displays the nonlot items including kit item components and makes commitments to these items. However, the SuiteApp does not make any assignments to kit component items. Also, the SuiteApp does not consider the expiry date for committing the quantity to kit lot components.

5. Click **Search**.

Lot numbered items for the selected criteria display in the **Items** sublist.



Note: The page displays up to 5000 sales order line items in search results.

6. From the **Items** sublist, select the sales order line item on which you want to run the lot allocation script.
7. Click **Assign Selected Items**.

If you have more than 25 search results, the SuiteApp displays the results in multiple pages. For more than 25 search results, use the **Assign All Items** button to allocate all items on all the pages. The **Assign Selected Items** button allocates items selected only on the active results page.

Removing Lot Assignments

To remove lot assignments on selected sales order line items, go to the Remove Lot Assignments page. A separate script runs in the background to remove the lot assignments.

To remove lot assignments:

1. Go to Lists > FEFO Lot Assignments > Remove Lot Assignments.
The Remove Lot Assignments page opens.
2. In the **Order Number** field, enter the sales order number.
3. (Optional) If you do not have the sales order number, you can filter the sales orders using the following lists:
 - Subsidiary
 - Customer

- Location
 - Item
4. (Optional) To include nonlot items, check the **Include Non-Lot Items** box. If you check this box, the SuiteApp displays the nonlot items including kit item components and removes commitments from these items.
 5. Click **Search**. The page displays up to 100 sales order line items in search results.
 6. From the **Items** sublist, select the sales order line items from which you want to remove the assignments.
 7. Click **Remove Selected Items**.

If you have more than 25 search results, the SuiteApp displays the results in multiple pages. For more than 25 search results, use the **Remove All Items** button to assign all orders on all the pages. The **Remove Selected Items** button removes items selected only on the active results page.

i Note: The script does not remove lot assignments from sales order line items that are in outbound processing. For example, a sales order line item has committed quantity of 100, out of which 70 are in picked state. When you change the ship date, the SuiteApp removes assignments from only 30 quantity that is not in picked state. This open quantity of 30 is considered for assignment in the next lot assignment script run.

Impact of Modifying Sales Orders on FFO Lot Assignments

This section explains the impact on assignments when you make changes to the sales orders. The following points are applicable only to sales order line items that have the location preference **Assign Lots on Order Fulfillment** not checked. If line level location is not set, then the header level location is checked.

- When you change the ship date or location at header level, the SuiteApp removes all assignments and commitments made to unfulfilled line items. However, these line items are considered for allocation in the next lot assignments script run. The SuiteApp does not remove assignments and commitments made to completely fulfilled or partially fulfilled line items.
- When you change the supply required by date at line level, the SuiteApp removes all the unfulfilled assignments and commitments.
- If you increase the order quantity and the assigned quantity does not meet the minimum fulfillment percentage quantity, then the SuiteApp removes the assigned quantity.
- When you decrease the order quantity, you must decrease the lot assignment manually.

For more information about sales orders, see the help topic [Sales Orders](#).

Modifying Sales Orders Using Web Services Integration

When you update sales orders using web services integration, the FFO Lot Assignments related functionality does not apply. For example, assume that you updated the ship date using web services integration. The SuiteApp does not remove assignments and commitments from the sales order line items.

Guidelines for Importing Sales Orders Using CSV Files

When importing sales orders using CSV files, make the following settings:

- Check the **Run Server SuiteScript and Trigger Workflows** box.
- In the **Order Management** subtab of the Accounting Preferences, select **Allow Uncommitted** from the **Fulfill Based on Commitment** list. This setting is required only when updating location using CSV file import.

For CSV import, the SuiteApp considers the header ship date, irrespective of supply required by date.

For more information, see the help topic [Importing CSV Files with the Import Assistant](#).

Assigning Lots on Order Fulfillment

If a location has **Assign Lots on Order Fulfillment** option checked in the FEFO Lot Assignments preferences, the SuiteApp works in Assigning Lots on Order Fulfillment mode for orders in that location. In the Assigning Lots on Order Fulfillment mode:

- Lot assignment happens automatically at the time of fulfillment of sales order line items.
- When assigning lots, you have the option to validate the expiry date condition on the lots before fulfilling. If the condition is true, then if some lots expire by the fulfillment date plus required shelf life days criteria, those lots are not assigned. The commitments of such lots is also removed.
- For lot items, depending on the **Fulfill Based on Commitment** accounting preference selection, the lot assignment takes place as follows:
 - If **Fulfill Based on Commitment** accounting preference is set to **Limit to Committed** or **Allow Uncommit**, the lot quantity is assigned based on the following formula:
Lot Quantity = Committed Quantity – Already Assigned Quantity
 - If **Fulfill Based on Commitment** accounting preference is set to **Ignore Commitment**, the lot quantity is assigned based on the following formula:
Lot Quantity = Ordered Quantity – Already Assigned Quantity
- The SuiteApp does not assign and fulfill sales orders that contain only non-inventory items. Such sales orders are not displayed in the Assign and Fulfill Orders page.
- For nonlot items such as serial numbered items, if the complete quantity is committed and assigned, the items are directly fulfilled. If the **Fulfill Based on Commitment** accounting preference is set to one of the following, the SuiteApp fulfills serial numbered items if committed quantity is equal to assigned quantity:
 - Limit to Committed
 - Allow Uncommitted
- For kit items:
 - If kit items contain lot items, only the lots that form complete kits are assigned. For example, assume a kit item contains 3 lot items with 1 quantity of each item and there is an order of 10 such kits. Let us also assume that the available quantity of 1 lot item is 15 and other 2 items is 8. Then, for the 10 kit items order, only 8 quantity will be assigned for each item because only 8 complete kits can be created.
 - Kit items containing serial numbered items cannot be fulfilled.
 - When processing kit items, if a kit component does not have fulfillable quantity greater than 0, then the SuiteApp does not process remaining kit components. In the message report, you get an error only until the line the kit components are processed.
 - Error messages have a limit of 4000 characters. Messages longer than 4000 characters are truncated.
- Lot items are assigned on sales order. However, kit components containing lot items are assigned on item fulfillment when transforming from sales order to item fulfillment.

- On successful item fulfillment creation, if there are any some committed quantities left due to expired lots not being assigned, the SuiteApp removes commitment from those quantities.
- If the item fulfillment is not created successfully, the SuiteApp removes the assigned quantities from the sales order, but does not reduce the committed quantities.

You can assign and fulfill orders from one of the following places:

- **Assign and Fulfill Orders page** – Lets you assign multiple orders.
- **Sales order** – Lets you assign the selected sales order using the **Assign & Fulfill** button in the sales order's view mode.
- **CSV Import - Assign and Fulfill Orders page** – Lets you assign and fulfill sales orders imported from this page.

Assigning and Fulfilling Orders from the Assign and Fulfill Orders Page

On the Assign and Fulfill Orders page:

- You can search an order by the order number or filter orders by subsidiary, location, and customer.
- The **Validate Expiry Date When Fulfilling From UI** list enables you to validate the lot expiry date. You can select one of the following options:
 - As per Location Preference** – Considers the setting in the FEFO Lot Assignments preference for that location.
 - Yes** – Validates expiry date for all sales order line items.
 - No** – Does not validate expiry date for any sales order line item.
- The following field selections made in the **Applied Values** section are used when making lot assignments and item fulfillments:
 - Date** – The value in this field is considered when making lot assignments. This date is considered as expected ship date for lot assignment criteria.
 - Posting Period** – The value in this field is applied in the item fulfillment created from this page.
 - Set Shipment Status to** – The value in this field is applied in the item fulfillment created from this page.

To assign and fulfill orders from the Assign and Fulfill Orders Page:

1. Go to Lists > FEFO Lot Assignments > Assign and Fulfill Orders.
 2. (Optional) To change the expiry date validation setting, select the required option from the **Validate Expiry Date When Fulfilling From UI** list.
 3. In the **Order Number** field, enter the sales order number.
 4. (Optional) If you do not have the sales order number, you can filter the sales orders using the following lists:
 - Subsidiary
 - Customer
 - Location
 5. Click **Search**.
- The search results are grouped by location and displayed in the **Sales Orders** sublist.
- The page displays up to 2500 sales order line items in search results.
6. From the **Sales Orders** sublist, select the sales orders that you want to assign and fulfill.
 7. Click **Assign & Fulfill Selected Orders**.

The **Assign & Fulfill Selected Orders** button assigns orders selected only on the active results page. If you have more than 25 search results, the SuiteApp displays the results in multiple pages.

Assigning and Fulfilling Order from the Sales Order

You can assign and fulfill an order from the sales order by clicking the **Assign & Fulfill** button. When you click this button:

- The item fulfillment record opens in **Create** mode
- The SuiteApp assigns lots to line items of lot numbered items that have the location preference **Assign Lots on Order Fulfillment** checked.
- Line items that are not supported by the SuiteApp or do not have valid lots to assign are not selected in the item fulfillment record.
- If you manually clear line items in the item fulfillment record, lots are not assigned to those line items. However, the messages associated to those line items appear in the message report.

The reason for not assigning lots on some line items can be one of the following:

- Some line items do not have valid lots to assign.
- The SuiteApp does not support assignment for some line items, such as serial numbered items.
- The line items contains location that does not have the **Assign Lots on Order Fulfillment** preference checked. These line items do not appear in the message report.
- The line items contains location that does not have the FEFO Lot Assignments preferences set. These line items appear in the message report.

To assign and fulfill an order from the sales order:

1. Go to Transactions > Sales > Enter Sales Order > List.
2. From the sales orders list, on the sales order that you want to assign and fulfill, click **View**.
3. Click **Assign & Fulfill**
After the assignment and fulfillment is complete, the item fulfillment page opens in create mode.
4. (Optional) If an item is partially assigned, to persist the lot assignment in the sales order:
 - a. On the inventory detail page, click the **Inventory Detail** icon for the line item that is partially assigned.
 - b. In the Inventory Detail popup window, click **OK**.
5. Click **Save**.

Assigning and Fulfilling Orders Using CSV File Import

When assigning and fulfilling orders using CSV file import:

- The CSV file should contain only the order numbers column. You can download the sample CSV file from the link in the CSV Import – Assign and Fulfill Orders page.
- The **Validate Expiry Date When Fulfilling From CSV or Web Services** field enables you to validate the lot expiry date. You can select one of the following options:
 - **As per Location Preference** – Considers the setting in the FEFO Lot Assignments preference for that location.
 - **Yes** – Validates expiry date for all sales order line items.
 - **No** – Does not validate expiry date for any sales order line item.

- The feature supports only UTF-8 encoding.
- The following field selections are used when making lot assignments and item fulfillments:
 - **Date** – The value in this field is considered when making lot assignments.
 - **Posting Period** – The value in this field is applied in the item fulfillment created from this page.
 - **Set Shipment Status to** – The value in this field is applied in the item fulfillment created from this page.
- Using CSV import, you can import up to 2500 line items in the sales orders.

To assign and fulfill orders using CSV file import:

1. Go to Lists > FEFO Lot Assignments > CSV Import – Assign and Fulfill Orders.
2. Click **Choose File**.
3. From the Open window, navigate to the CSV file and click **Open**.
4. (Optional) To change the expiry date validation setting, select the required option from the **Validate Expiry Date When Fulfilling From CSV or Web Services** list.
5. From the **Bulk Fulfill from Location** list, select the location from which you want to fulfill the orders.
6. From the **Posting Period** list, select the posting period in which you want to account the transaction.
You cannot post to a closed period.
7. Click **Assign & Fulfill**.

Assigning and Fulfilling Orders Using Web Services Integration

When creating item fulfillment for sales order using web service integration, add the following parameters when requesting sales order in edit mode:

Parameter Name	Parameter ID	Parameter Type	Supported Values	Default Value	Description
Create IF from Integration	custbody_fefo_createif_frm_so_intgrtn	Boolean	<ul style="list-style-type: none"> □ true □ false 	false	Determines whether the item fulfillment record should be created.
Apply Expiry Date Validation	custbody_fefo_apply_expirydate_intgrtn	Integer	<ul style="list-style-type: none"> ■ 1 or no value – Take value from FEFO location preference. ■ 2 – Always apply expiry date validation ■ 3 – Never apply expiry date validation 	1	Determines whether expiry date validation should be considered when assigning lots.
Fulfillment Date	custbody_fefo_fulfill_date_fm_ingrtn	Date	Timestamp	Today's date	Fulfillment date on the item fulfillment record.
Posting Period	custbody_fefo_post_period_fm_ingrtn	Posting Period	Available accounting periods in the account	Default posting	Posting period on the item fulfillment record.

Parameter Name	Parameter ID	Parameter Type	Supported Values	Default Value	Description
				period of the account	
Shipping Status	custbody_fefo_ship_status_fm_ingroup	Shipment Status	<ul style="list-style-type: none"> ■ Shipped ■ Picked ■ Packed 	Default shipping status	Shipping status on the item fulfillment record.

Importing Cash Sale Transactions and Assigning Lots

The SuiteApp also provides the ability to import cash sale transactions and assigning lots to the items in the cash sale transactions. The CSV Import – Cash Sale page is provided for the same.

You must first create a saved CSV import of the cash sale transactions and note the script ID of the saved CSV import. The saved CSV import can be of single or multiple files.

When creating the saved CSV import using single file, set the following mapping:

CSV File Column	NetSuite Field
Customer	Cash Sale: Customer (Req)
ExternalId	Cash Sale: External ID
Process	Cash Sale: Handling Mode (Req)
Location	Cash Sale: Location
Date	Cash Sale: Date (Req)
Item	Cash Sale – Items: Item
Quantity	Cash Sale – Items – Inventory Detail: Status
InventoryDetail:Status	Cash Sale – Items – Inventory: Issue Inventory Number
InventroyDetail:Serial/LotNumber	Cash Sale – Items – Inventory Detail: Quantity
InventoryDetail:Quantity	Cash Sale – Items – Inventory Detail: Quantity

When creating the saved CSV import using multiple files, set the following mapping:

CSV File Column	NetSuite Field
Customer	Cash Sale: Customer (Req)
ExternalId	Cash Sale: External ID
Process	Cash Sale: Handling Mode (Req)
Location	Cash Sale: Location
Date	Cash Sale: Date (Req)
Amount	Cash Sale – Items: Amount
Item	Cash Sale – Items: Item
Quantity	Cash Sale – Items – Inventory Detail: Status

CSV File Column	NetSuite Field
InventoryDetail>Status	Cash Sale – Items – Inventory: Issue Inventory Number
InventroyDetail:Serial/LotNumber	Cash Sale – Items – Inventory Detail: Quantity
InventoryDetail:Quantity	Cash Sale – Items – Inventory Detail: Quantity

For more information about saved CSV imports, read the help topic [Working with Saved CSV Imports](#).

 **Note:** This import does not check the expiry date condition when assigning lots.

Importing Single File Cash Sale Transactions and Assigning Lots

Before proceeding:

- Create a single file saved CSV import of the cash sale transactions
- Note the script ID of the saved CSV import.

 **Note:** Make sure you use the same delimiter that use selected in the **CSV Column Delimiter** field of the saved CSV import.

To import single file cash sale transactions and assigning lots:

1. Go to Lists > FEFO Lot Assignments > CSV Import – Cash Sale.
2. In the **Saved CSV Import Script ID** field, enter the script ID of the saved CSV import.
3. Select **Upload Using Single File**.
4. Click **Choose File**.
5. In the Open window, navigate to the CSV file and click **Open**.
6. Click **Import**.

Importing Multiple File Cash Sale Transactions and Assigning Lots

Before proceeding:

- Create a multiple files saved CSV import of the cash sale transactions
- Note the script ID of the saved CSV import.

 **Note:** Make sure you use the same delimiter that use selected in the **CSV Column Delimiter** field of the saved CSV import.

To import multiple file cash sale transactions and assigning lots:

1. Go to Lists > FEFO Lot Assignments > CSV Import – Cash Sale.
2. In the **Saved CSV Import Script ID** field, enter the script ID of the saved CSV import.
3. Select **Upload Using Multiple Files**.
4. From the **(Primary File) Cash Sale** field, click **Choose File**.
5. In the Open window, navigate to the CSV file and click **Open**.
6. (Optional) To add more saved CSV import files, click **Choose File** from one or more of the following fields and add the files:

- (Optional) Cash Sale – Items
- (Optional) Cash Sale – Items – Inventory Detail
- (Optional) Cash Sale – Billable Time
- (Optional) Cash Sale – Billing Address
- (Optional) Cash Sale – Shipping Address

7. Click **Import**.

Reporting Errors

When doing assignments and fulfillments, there could be issues such as insufficient available quantity or lots not satisfying the assignment criteria. When performing assignment and fulfillment, you can see the report of such issues in a popup window by clicking a link in the banner message. The popup window displays up to 500 messages.

You can also get a consolidated report of messages by subsidiary, location, or message type from the FEFO Lot Assignment Messages Report page.

You can filter the report by selecting a subsidiary, location, or message type. The **Message Type** field has the following options:

- **Info** – Lists all the information messages.
- **Error** – Lists all the error messages.
- **All** – Lists all error and information messages.

Depending on the mode selected, the messages can be different in the message report. For example, in commit and assign mode, for kit items, the messages are shown at kit component level. Whereas, in assign lots on order fulfillment mode, the messages are shown at kit item level.

To view the FEFO Lot Assignments messages report:

1. Go to Lists > FEFO Lot Assignments > Messages Report.
2. On the FEFO Lot Assignment Messages Report page, select values one or more of the following filters:
 - Subsidiary
 - Location
 - Message Type
3. Click **Get Report**.

By default, the **FEFO SS Report Page** scheduled script runs on the first Sunday of every month and clears all the messages that are more than 30 days old. You can customize this script by modifying the **Remove FEFO Lot Assignment Messages Log** deployment of the script. You can change the number of days that the script checks for deleting the logs from the **Days** field in the **Parameters** subtab of the script deployment. For more information, read the help topic [Script Deployment](#)

FEFO Lot Assignments and the Static Route Management SuiteApp

When you install both FEFO Lot Assignments and Static Route Management SuiteApps on the same account, there is a change in behavior of the SuiteApps. The FEFO Lot Assignments SuiteApp follows the Static Route Management SuiteApp for changes in header level location, ship date, or transaction

date. The FEFO Lot Assignments SuiteApp does not present any alerts when you change the header level location, ship date, or transaction date. However, the allocations and commitments are removed following the FEFO Lot Assignments SuiteApp conditions. For more information, see [Criteria for Commitment and Lot Assignment](#).

Available to Promise

The Available to Promise feature gives purchasing and sales departments visibility into the projected ship date of goods during the quote and order processes. It enables you to check item availability based on outstanding transfer orders, purchase orders, work orders, and sales orders.

For example, on April 1, your customer wants to place an order for 100 bicycles. You need to know how soon the order can be fulfilled. Using Available to Promise, you check item availability to find the earliest date that all 100 bicycles will be available in stock. According to NetSuite calculations, by April 15, only 50 bicycles will be available. However, by May 1, all 100 items on the order can be fulfilled. This information enables you guarantee the customer that they will receive the items they need by the promised date.

To determine availability, NetSuite reviews the following information:

- The quantity of items expected to be received on purchase orders, work orders, and transfer orders based on their expected receive date.
- The quantity of items expected to be fulfilled on sales orders and transfer orders based on their expected ship date.

Knowing the number of items that will move in and out of inventory each day provides you with a virtual available quantity calculation. This virtual quantity describes the number of items that are available to fulfill orders for that day. These calculations can also be used to track the available quantity for any date. This information helps you to find a date when the quantity to fill an order will be available. For more information, see [Available to Promise Methods](#).

Available to Promise differs from Demand Planning in the following way:

- Demand Planning provides supply recommendations based on a forecast or sales orders in a Build to Order or a Build to Stock environment.
- Available to Promise provides demand date recommendations based on available firmed supply.

The Available to Promise feature is accessible only when you have enabled the Demand Planning feature. For more information, see [Enabling Available to Promise](#).



Important: A user must have the Check Item Availability permission for their role to use the Available to Promise feature. The View setting is the default for this permission. For more information, see the help topic [NetSuite Roles Overview](#).

After item records are set up, you can review item availability either on transaction lines or using the Check Item Availability page.

Check Item Availability Page

Use the Check Item Availability page to review the supply and demand of an item based on the projected receipt and ship date. You can review the item supply and demand on outstanding sales orders, work orders, and transfer orders.

For example, a customer requesting a quote or placing an order asks for a projected shipment date. The information about the Check Item Availability page provides the earliest date that the full item quantity

will be available. You can then pass this information about to the customer. You can also review the projected inventory for handling projected stock shortages.

Check Item Availability Popup Window

You can access the Check Item Availability popup window from a quote, opportunity, or sales order. The popup window displays the same data as the Check Item Availability page. For more information, see [Checking Item Availability](#).

Enabling Available to Promise

Enable the Available to Promise feature to check inventory and assembly item availability.

 **Note:** To use this feature, enable Demand Planning.

To enable the Available to Promise feature:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the **Available to Promise** box.
3. Click **Save**.

After the feature is enabled, you can set up item records for it.

To set up an item record for Available to Promise:

1. Go to Lists > Accounting > Items.
2. Beside the name of an inventory or assembly item, click **Edit**.
3. On the item record, click the **Purchasing/Inventory** subtab.
4. In the **Inventory Management** section, select a **Default ATP Method**.
For more information, see [Available to Promise Methods](#).
5. In the **ATP Lead Time** field, enter a lead time to use in Available to Promise calculations.
ATP lead time is used as a planning horizon for supply and demand in the ship date recommendation calculations. ATP lead time also provides a ship date on an order when no inventory is available based on future supply and demand.
If you use the Multi-Location Inventory feature, the **Locations** subtab shows an **ATP Lead Time** column. You can enter a distinct ATP lead time for each location in the fields in this column.
6. Enter additional data in fields as necessary.
7. Click **Save**.

Available to Promise Methods

On item records, you can choose the Available to Promise (ATP) method used to calculate the available date for the item. You can choose one of the following:

- Discrete ATP
- Cumulative ATP with Look Ahead

Discrete ATP

The Discrete ATP method reviews the item availability for each supply order and provides an available date for the specified quantity.

Non-posting purchases are fulfilled by sales orders. The quantity that is available for an item is based on the quantity available within an individual purchase.

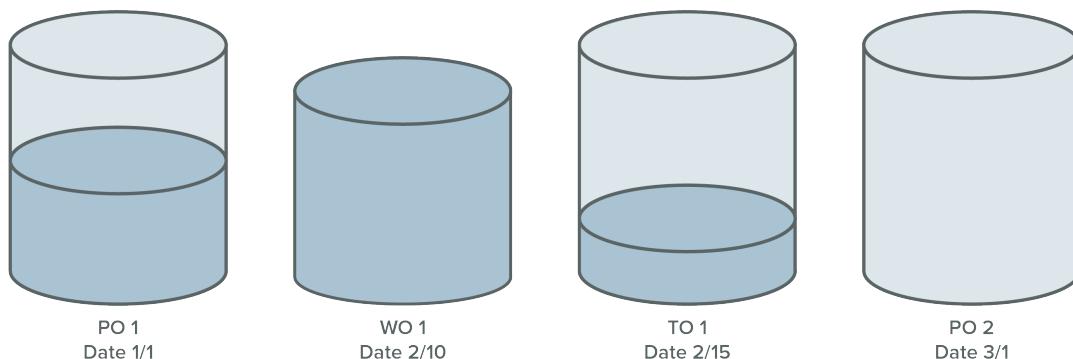
In the following example, four supply sources are entered into NetSuite:

- A purchase order with an expected receipt date of January.
- A work order with a production end date of February 10.
- A transfer order with an expected receipt date of February 15.
- A purchase order with an expected receipt date of March 1.

Based on these sources of supply, NetSuite sets aside non-posting purchase quantities for inventory calculations. Demand sources are then counted against these purchases based on the following:

- Expected ship date for sales orders and transfer orders
- Production start date for work orders

The quantity that is available on a certain date is based on the supply and demand calculated for each non-posting purchase transaction.



	PO #1 January 1	WO #1 February 10	TO #1 February 15	PO #2 March 1
Supply	50	40	50	50
Demand	(Orders dated from January 1 – February 9) 30	(Orders dated from February 9 – February 14) 40	(Orders dated from February 15 – February 28) 10	
Available	20	0	40	50

Using Discrete ATP, NetSuite calculates the earliest date that the item is available.

- If a quantity of 10 is requested, then the available date is 1/1.
- If a quantity of 30 is requested, then the available date is 2/15.
- If a quantity of 100 is requested, the available date is calculated based on the sum of the current and ATP lead time.

Using the Discrete ATP method, the quantity available is based on the discrete non-posting purchase quantities. If your sales order quantities are always greater than the supply quantities, you should use the Cumulative ATP with Look Ahead method.

Cumulative ATP with Look Ahead

Using the Cumulative ATP with Look Ahead method, supply estimates are cumulative based on all outstanding orders within a horizon. This enables you to account for future shortages.

These supply calculations are based on future-dated non-posting transactions: purchase orders, sales orders, and work orders.

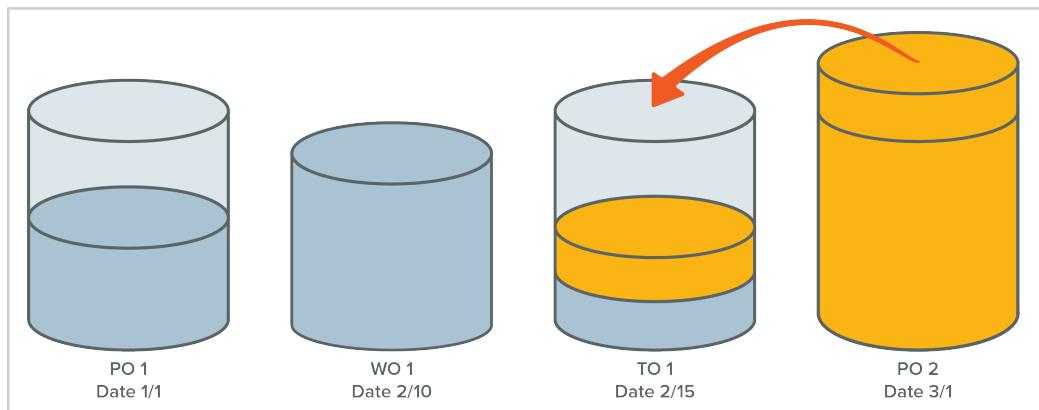
For example, you can build a maximum of 50 bicycles per week based on current capacity. Bicycle Mart places an order of 200 units to be delivered a month from now. You must accumulate inventory for the next month to fulfill this Bicycle Mart order. This means that any new sales orders must have a delivery date of over one month from now.

For example, four supply sources are entered into NetSuite:

- A purchase order with an expected receipt date of January 1.
- A work order with a production end date of February 10.
- A transfer order with an expected receipt date of February 15.
- A purchase order with an expected receipt date of March 1.

On March 1, a sales order for 60 units and a purchase order for 50 units is entered.

- The 50 units on the purchase order will be consumed by the sales order.
- The sales order will also use 10 units from the transfer order on February 15.
- The total amount available reflected includes this transfer amount.



	PO #1 January 1	WO #1 February 10	TO #1 February 15	PO #2 March 1
Supply	50	40	50	50
Demand	(Orders dated from January 1 – February 9) 30	(Orders dated from February 9 – February 14) 40	(Orders dated from February 15 – February 28) 10	(All orders on March 1st and beyond, within ATP lead time) 60

	PO #1 January 1	WO #1 February 10	TO #1 February 15	PO #2 March 1
Projected On-hand Total	20	20	60	50
Available	20	20	50	50

Checking Item Availability

When you use the Available to Promise feature, you can check the future availability of an item. This shows the demand date recommendation based on available supply.

Item availability calculations use the following assumptions:

- When the item availability check is done on an assembly, all existing orders for the assembly are reviewed. NetSuite does not review possible component shortages of components.
- The current item availability check is available only for assembly and inventory items.
- Existing drop ship orders and special orders are not considered as part of supply or demand.
- suggested purchases or work orders in a supply plan are not considered for availability calculations because these orders are not yet firmed.

You can check item availability in the following ways:

- [Checking Item Availability on Transactions](#)
- [Checking Item Availability on the Check Item Availability Page](#)

Checking Item Availability on Transactions

The following procedure enables you to check item availability on transactions.

To view recommendations based on available supply:

1. Open a sales order, opportunity, or quote.
2. On a line-item for an assembly or inventory item, click the **Expected Ship Date** field.

The **Check Item Availability** icon appears next to the field.



3. Click the **Check Item Availability** icon.

The Item Availability popup window opens and displays the following item data:

- **Primary Information**
 - Location
 - Item name
 - Quantity shown on the transaction
 - Line quantity shipped – Quantity shipped on the transaction line
 - Line quantity committed – Quantity committed on the transaction line
 - Quantity remaining – Quantity that is neither shipped nor committed on the transaction line
 - Unit of Measure

- Earliest Available Date - This is the earliest date that the remaining quantity on the transaction line will be available.

■ **Item Information**

- ATP Method
- Quantity on hand
- Quantity available
- Quantity committed
- Lead time
- Safety stock level

4. Enter a new **Quantity**.

When you click **OK**, the new quantity populates the transaction.

5. Select an **Alternate Unit of Measure**.

When you click **OK**, quantities update based on the alternative unit of measure.

The bottom portion of the popup window displays the quantity available of the item, based on future dates. The supply, demand, and balance quantities appear for each date.

6. To close the popup window click one of the following:

- a. **Close** to close the popup window without updating any data on the transaction.
- b. **OK** to close the popup window and update the transaction with new data.

Checking Item Availability on the Check Item Availability Page

You can use the Check Item Availability page to verify availability of assembly and inventory items.

To check item availability:

1. Go to Transactions > Inventory > Check Item Availability.
2. Select a **Location**.
3. Select an **Item**.
4. After you select an item and location, the following general availability data populates the form.
 - Primary Information
 - Location
 - Item name
 - Quantity shown on the transaction
 - Line quantity shipped – Quantity shipped on the transaction line
 - Line quantity committed – Quantity committed on the transaction line
 - Quantity remaining – Quantity that is neither shipped nor committed on the transaction line
 - Unit of Measure
 - Item Information
 - ATP Method
 - Quantity on hand
 - Quantity available
 - Quantity committed

- Lead time
- Safety stock level

If a unit of measure is set for the item, it appears. You can optionally select a different unit.

Note that to show an availability date, you must enter a specific quantity.

5. Enter the **Quantity** required.

- The date shown in the **Earliest Available Date** field is the earliest date the full quantity is available.
- The **Earliest Available Date** changes based on the quantity being requested.

DATE	SUPPLY	DEMAND	BALANCE	AVAILABILITY
12.9.2014	36	0	36	36

6. For each date shown, the **Supply** column displays the quantity to be added to the available total. The **Demand** column displays the quantity to be removed from the available total.

You can click a quantity in either column to open the Check Item Availability Detail window.

The detail window lists all transactions that affect the totals for that date.

- The supply detail shows existing purchase orders and work orders that add inventory on that date.
- The demand detail shows existing sales orders and transfer orders that deplete inventory on that date.

You can click on the transaction number in the detail window to open the transaction form.

TRANSACTION DATE	EXPECTED RECEIPT DATE	TRANSACTION TYPE	TRANSACTION NUMBER	QUANTITY
			12345678012	0

7. To check availability for additional items, make new selections in the **Location**, **Item**, and **Quantity** fields.

Available to Promise Earliest Availability

When you enable the Supply Allocation feature, you can view the earliest availability estimate in the Sales Order line, according to your supply allocation policies. This new availability calculation provides an earliest available date based on a real-time simulated supply allocation.

The computed availability date follows supply allocation policies, which means sales order required by dates have a higher probability of being met.

Enabling supply allocations prompts the following changes in NetSuite:

- The **Expected Ship Date** field is disabled and the embedded link to the Check Item Availability popup window is not visible.
- The Transactions > Inventory > Check Item Availability page is not available.
- The **Earliest Availability** icon is embedded in the **Sales Order Supply Required By Date** column.



Note: Supply Allocation does not consider buffer stock when allocating and setting expected item ship dates.

Enabling Supply Allocation and the Earliest Available Popup Window

An administrator can use the following procedure to enable Supply Allocation. After the feature is enabled, the administrator can make the Earliest Availability popup window available to NetSuite roles.

To enable the Supply Allocation feature:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. In the **Inventory** section, check the **Supply Allocation** box.
4. Click **Save**.

To enable the Earliest Availability popup window, grant Create, Edit, or Full permissions the Earliest Availability role. For more information, see the help topic [NetSuite Roles Overview](#).

Calculating Earliest Availability on Sales Orders

Use the following procedure to calculate earliest availability on sales orders.

To calculate earliest availability on sales orders:

1. Go to Transactions > Sales > Enter Sales Orders.
2. Complete the sales order page.
For more information, see the help topic [Creating Sales Orders](#).
3. On the Sales Order, click the **Items** subtab.
4. Select an **Item**.
5. Enter an item **Quantity**.
Enter other details for this item.
6. In the **Supply Required by Date** column, click the **Earliest Availability** icon ().
7. Complete the following Earliest Availability popup window fields:
The **Subsidiary** and **Item** information displays.
 - a. Select the **Location** you want to check supply availability.
Selecting other locations may change the **Supply Required by Date**.
 - b. Enter the **Quantity** of items you want to ship.
 - c. The **Fulfilled** amount is displayed.
 - d. Select an **Allocation Strategy**.

- e. Enter the **Supply Required by Date** target that you and your customer have agreed to.
 - f. Any change to the following fields prompts NetSuite to recompute the earliest available date:
 - Location
 - Quantity
 - Supply Required by Date
 - Allocation Strategy
8. To accept the earliest availability date, click **OK**

The **Location**, **Quantity**, **Supply Required by Date**, and **Allocation Strategy** fields update.

To reject the earliest availability date and to return to the order line without populating the fields, click **Close**.

Assigning a Location Based on Automatic Location Assignment

NetSuite can help you negotiate supply required by dates based on earliest availability across multiple locations for each required order item. NetSuite calculates availability based on the automatic location assignment rules and supply allocation policies.

Before you can assign location based on automatic location assignment, see the help topic [Setting Up Automatic Location Assignment](#).

To assign location based on automatic location assignment:

1. Complete the sales order page.
For more information, see the help topic [Creating Sales Orders](#).
2. On the sales order, select an **Automatic Location Assignment Configuration**.
3. In the **Supply Required by Date** column, click the **Earliest Availability** icon ().
4. Complete the Earliest Availability popup window.
5. To compute the best location, click **Assign Location**.
The Assign Location popup window displays the best location and the earliest available date for the sales order line based on the following:
 - Quantity
 - Supply Required by Date
 - Allocation Strategy
 - Automatic location assignment configuration
6. To accept the recommendation, click **OK**.

To decline the Supply Allocation calculation method, set the Sales Order line allocation strategy to **Do Not Allocate**. The link to the Check Item Availability popup window appears in the **Sales Order Expected Ship Date** column. NetSuite then treats all sources of supply as consumed against the demand orders, regardless of their allocations.

Supply Chain Control Tower

You use the Supply Chain Control Tower feature to simulate inventory supply and demand across your supply chain. NetSuite uses these forecasting simulations (snapshots) to analyze whether inventory levels

are in line with demand or planned levels. This can help you juggle matching customer requests with supply availability.

Supply Chain Control Tower

Snapshot analysis can help you plan to receive a product only when it is needed, reducing inventory investment. Understanding your inventory levels in conjunction with forthcoming supply and demand helps you analyze your supply chain logistics to plan inventory purchases and production.

When you use Supply Chain Control Tower, snapshots can be performed for Inventory items and Assembly/Bill of Materials items. This includes lot numbered and serial numbered items. These snapshots show a running balance of inventory based on sales orders and future inventory levels.

NetSuite calculates supply and demand snapshots for the following transactions:

- Sales Orders (Demand only)
- Transfer Orders (Demand and Supply)
- Intercompany Transfer Orders (Demand and Supply)
- Work Orders (Demand and Supply)
- Purchase Orders (Supply only)
- Blanket Purchase Orders (Demand and Supply)

When you generate a snapshot for an assembly item, the snapshot simulates the inventory level only for the assembly item. You would need to generate additional snapshots for each component to analyze component inventory levels.

Snapshot simulations may also be useful for inventory planning to introduce new products or for end-of-life product phases.



Note: If item record and location restrictions apply to users in your account based on their assigned role, those restrictions apply when accessing inventory information.

Set Up the Supply Chain Control Tower Feature

To set up the Supply Chain Control Tower feature, see the following help topics.

- [Enabling the Supply Chain Control Tower Features](#)
- [Setting Supply Chain Control Tower Preferences](#)
- [Defining Auto Generated Numbering in Snapshot Simulations](#)
- [Set up Supply Chain Control Tower on Location Records](#)
- [Set up Inventory and Item Records for Supply Chain Control Tower](#)

Enabling the Supply Chain Control Tower Features

Use the following procedure to enable the Supply Chain Control Tower features.

To enable Supply Chain Control Tower features:

1. Go to Setup > Company > Enable Features.
2. Click the **Items & Inventory** subtab.
3. Verify that these features are enabled:

- Inventory
 - Multi-Location Inventory
 - Advanced Inventory Management
4. Check the **Supply Chain Control Tower** box.
 5. Click **Save**.

Setting Supply Chain Control Tower Preferences

Choose settings for control tower and accounting preferences that govern ways the Supply Chain Control Tower feature functions. These settings act as defaults for all of your items, but you can specify different settings for each item.

To set Supply Chain Control Tower preferences:

1. Go to Setup > Accounting > Control Tower Preferences.
2. Enter the following preferences:
 - **Default Supply Chain Past Order Horizon** – Enter the number of days prior you want to be included in the snapshot. This will include past due orders dated during a range from current date back through the number of days defined here.
The default for this field is 14 days.
 - **Default Supply Chain Future Order Horizon** – Enter the number of days ahead you want to be included in the snapshot. This will include future orders beyond the current date in the snapshot generated for this item.
For example, when you select 30 in this field, open orders are included that are due between the current date and 30 days out.
The default for this field is 30 days.
The maximum you can enter in this field is 365 days.
 - **Vendor Predicted Days Late/Early** - Enter the number of days that a vendor is predicted to be late. The default for this field is 0 days. This value is used for all vendors by default, but you can set a vendor-specific value on the vendor record.
 - **Vendor Predicted Risk Confidence** - Enter the confidence in percent of a vendor providing ordered items. The default for this field is 100. This value is used for all vendors by default, but you can set a vendor-specific value on the vendor record.
3. Click **Save**.

To set vendor-specific Supply Chain Control Tower preferences:

1. Go to Lists > Relationships > Vendors.
 2. Click **Edit** next to the name of the vendor whose record you want to change.
 3. Under User Entry Predicted Risk, enter:
 - Predicted Days Late/Early — Enter the number of days that this vendor is predicted to be late. When you create a new vendor, this field is automatically set to 0.
 - Predicted Risk — Enter the confidence in percent of a vendor providing ordered items. When you create a new vendor, this field is automatically set to 100.
 4. Click **Save**.
- **Accounting Preferences**

When you use Supply Chain Control Tower, the accounting preference, **Create Work Order in Supply Planning**, can use any selection except **Do Not Generate**. For more information, see the help topic [Items/Transactions Accounting Preferences](#).

Defining Auto Generated Numbering in Snapshot Simulations

You can enable auto numbering support for your organization's snapshot simulations. For example, you can apply auto-numbering in the following ways:

- Set up auto-numbering for simulations on the supply chain snapshot.
- You can configure the system to apply auto-numbering to manual and auto generated simulations.
- The update option enables you to apply auto-numbering to existing simulations.

To define auto-generated numbers:

1. Go to Setup > Company > Auto-Generated Number.
For more information, see the help topic [Set Auto-Generated Numbers](#).
2. In the **Entities** subtab, beside Supply Chain Snapshot Simulation, check the **Enable** box.
3. Click the **Other** subtab.
4. In the **Prefix** column, enter the letters or numbers that you want to appear in front of every record number of this type.
For example, you could add the prefix CUST to identify your customer records.
5. In the **Suffix** column, enter letters or numbers you want to appear after every record number of that type.
For example, 2021.
6. In the **Minimum Digits** column, enter the lowest number of digits you want in your auto-generated numbering code. Valid values for this field range from 0–20.
For example, if you enter 4, your first record is 0001.
7. In the **Initial Number** column, enter the number you want your first numbered record to be.
The **Current Number** displays.
8. To enter your own name or number on records, check the **Allow Override** box.
Checking this box clears the **Auto** box on records. If you do not check this box, you cannot edit the numbers on records that serve as the record name.
9. To assign a number to all existing records of this type, check the **Update** box.
10. Click **Save**.

Set up Supply Chain Control Tower on Location Records

On location records, check the **Include in Control Tower** box to allow the location to appear in snapshots you generate. For more information, see the help topic [Creating Locations](#).

Set up Inventory and Item Records for Supply Chain Control Tower

You can set up inventory and assembly item records for Supply Chain Control Tower. In the Supply Chain Future Horizon field, enter the number of days ahead you want to be included in the snapshot. This will

include future orders beyond the snapshot date generated for this item. For more information, see the help topic [Entering Inventory Management Details](#).

Generating a Supply Chain Snapshot

You can generate a Supply Chain Snapshot for Assembly or Inventory items.

To generate a Supply Chain Snapshot:

1. Go to Lists > Supply Chain > Supply Chain Snapshots > New.
2. In the **Item Name/Number** field, select an assembly or inventory item.
3. Optionally, enter a **Memo**.
4. Optionally, change the setting for **Past Horizon**. Select the number of days prior you want to be included in the snapshot. This will include past orders from the last generated snapshot for an item. The maximum is 60 days.



Note: The **Future Horizon** can be changed only on the item record, or using the default preference. See [Set Up the Supply Chain Control Tower Feature](#).

Even if no setting appears for the **Future Horizon** on a snapshot, NetSuite uses the default future order horizon to generate the snapshot.

5. Click **Save** to generate a snapshot.
- The snapshot displays inventory and order data at the bottom of the form.
6. Click **Refresh** to view the latest updates.
7. Click **Edit** to modify the memo you entered.

To customize a snapshot, click **Customize View**. For more information, see the help topic [Saved Searches](#).

To manually create a simulation, click **Manual Simulation**. For more information, see [Manually Creating a Supply Chain Snapshot Simulation](#).

The snapshot uses data in the following order:

1. Supply
2. Demand
3. Past Due Supply
4. Past Due Demand

Planned orders from supply plans are included in snapshot calculations, as well as planned orders from reorder point planning. Planned orders are purchase orders only, not transfer orders.



Note: When the sourced date used in the snapshot is NULL, the transaction is removed from the snapshot. Demand and supply orders only appear on the snapshot when sourced dates have a value.

Manually Creating a Supply Chain Snapshot Simulation

Use the following procedure to manually create a supply chain snapshot simulation.

To manually create a supply chain snapshot simulation:

1. Go to Lists > Supply Chain > Supply Chain Snapshots.

2. Click the number link of the snapshot for which you want to manually create a simulation.
3. On the Supply Chain Snapshot page, click **Manual Simulation**.
The Supply Chain Snapshot Simulation popup window appears.
4. Complete the Primary Information section.
A **Simulation Number** is automatically created after the simulation is created.
The displayed **Item Name/Number** and **Item Type** are from the original snapshot.
 - a. Select a **Transaction Type**: Purchase Order, Sales Order, Transfer Order, or Work Order.
 - b. Enter a simulation **Quantity**.
 - c. Select a simulation **Status**: Authorized, Implemented, Rejected, or Under Evaluation.
 - d. To reschedule this simulation, check the **For Reschedule** box.
 - e. Select a simulation **Owner**.
 - f. Optionally enter a **Memo**.
The values in the **Document Created From** and **Line Created From** fields are taken from the snapshot simulation column.
5. If you selected all transaction types except Sales Order, complete the Supply Location section.
 - a. Select a **Supply Date**.
 - b. Select a **Supply Location**.
 - c. Select a **Supply Entity** customer or vendor.
 - d. Select a **Supply Subsidiary**.
6. If you selected Sales or Transfer Order as your transaction type, complete the Demand Location section.
 - a. Select a **Demand Date**.
 - b. Select a **Demand Location**.
 - c. Select a **Demand Entity** customer or vendor.
 - d. Select a **Demand Subsidiary**.
7. Click **Save**.

Generating Supply Chain Snapshots From Item Records

Use the following procedure to generate supply chain snapshots from item records.

To generate snapshots from item records:

1. Go to Lists > Accounting > Items > New
2. Beside the item you want to generate a snapshot for, click **View**.
3. To generate a simulation, click **Supply Chain Snapshot**.

Supply Chain Snapshot Allocated Demand and Allocated Supply

Allocated Demand and Allocated Supply pop-up windows are now available on the Supply Chain Snapshot:

- On supply order lines, such as purchase orders, transfer orders, or work orders, the allocated demand figure links to a pop-up window. This pop-up window displays the details of each allocated demand order.

- On inventory lines, the allocated demand figure links to a pop-up window, which displays the details of each allocated demand order.
- Allocated demand order lines can be sales orders, transfer orders, order reservations, or work orders.
- On demand order lines, such as sales orders, transfer orders, or work orders (component lines), the allocated supply figure links to a pop-up window. This pop-up window displays allocated source of supply details. Sources of supply can be inventory or supply orders. For example, blanket purchase orders, purchase orders, inbound shipments, transfer orders, or work orders. (assembly).
- When an organization experiences shortages, demand orders are delayed. The allocated supply pop-up window displays where the inventory or supply is missing or delayed.
- The allocated demand pop-up window displays where supply order or inventory is allocated, and which demand orders are affected.

To view an Allocated Supply or Allocated Demand Supply Chain Snapshot window:

1. Go to Lists > Supply Chain > Supply Chain Snapshots.
2. In the **Supply Chain Snapshot** page, beside the snapshot you want to open, click the number link.
3. To review where allocations have assigned, in the Supply Chain Snapshot subtab, click the **Allocated Demand** number link.
On the list of allocations pop-up window, review the allocated demand order information:
 - Allocated quantity
 - Days late
 - Sales channel
 The Allocated Demand pop-up window shows to where the inventory has been allocated.
4. To review where allocations are coming from, in the Supply Chain Snapshot subtab, click the **Allocated Supply** number link.

Using Blanket Purchase Orders and Inbound Shipments on Supply Chain Snapshots

NetSuite lets you include Blanket Purchase Orders (BPO) and Inbound Shipments as sources on the supply chain snapshot.

Blanket Purchase Order Schedules provide a forecast to vendors to help them prepare for production. After the BPO schedule line item is released, NetSuite creates a purchase order.

Inbound Shipments represent a shipping consignment between trading partners. It lists items ordered on the purchase order. You can create multiple inbound shipments against each Purchase Order line, each with its own delivery date and receiving location.

The Supply Chain Snapshot includes the BPO schedule line items, purchase orders, and the related inbound shipments. These inclusions ensure that the supplied quantities across these sources of supply are consistently accounted for.

To enable features for using BPO and Inbound Shipments on snapshots:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the **Supply Chain Control Tower** box.
3. On the **Analytics** subtab, check the **Supply Chain Predicted Risks** box.

This is not required for Blanket Purchase Orders and Inbound Shipments.

4. On the **Transactions** subtab, check the **Blanket Purchase Orders** box and the **inbound Shipment Management** box.
5. Click **Save**.

Approving a Blanket Purchase Order

Use the following procedure to approve a blanket purchase order.

To approve a blanket purchase order:

1. After you create an inventory item containing blanket orders, go to Transactions > Purchases > Enter Blanket Purchase Orders.
2. On the **Items** subtab, open the **Item to Allocate**.
3. On the Item Ready to Allocate page, click **Supply Chain Snapshot**.
4. On the Supply Chain Snapshot page, click the **Blanket Purchase Order Approved** you want to open.
Pending approval blanket POs do not appear in the snapshot.
5. On the Blanket Purchase Order, **Approval Status** field, select **Approved**.
6. Click **Save**.

Editing or Viewing the Approved Blanket Purchase Order

Use the following procedure to edit or view an approved blanket purchase order.

To edit or view the approved blanket purchase order:

1. Reopen the approved blanket purchase order.
2. On the **Items** subtab next to the item you approved, in the **Schedule** column, click the **Edit** icon.
3. **Refresh** the Supply Chain Snapshot.
The **Blanket PO Quantity** column displays what is included in the snapshot for blanket purchase orders.

Displaying an Inbound Shipment From a Purchase Order

Use the following procedure to display an inbound shipment from a purchase order.

To display an inbound shipment from a purchase order:

1. Go to Transactions > Purchases > Create Inbound Shipment > List.
2. On the Inbound Shipments page next to the shipment you want to open, click **Edit**.
3. On the **Item** subtab, click the purchase order you want to view.
4. Update and save the inbound shipment.
5. Go to Lists > Supply Chain > Supply Chain Snapshot.
The new source of supply appears in the snapshot.
6. Click the inbound shipment transaction link.

If you have multiple shipments from a purchase order line at different dates, the quantities and dates are displayed in the snapshot. NetSuite updates the existing purchase order line to prevent duplication.

Customizing a Snapshot Form

You can customize your Supply Chain Snapshot form to learn more when analyzing inventory supply and demand. This enables you to more efficiently plan future purchases and product line production.

Customize your snapshot form to use the following new fields:

Entity	Add the Entity field to show information about the vendor or customer in the Supply Chain Snapshot.
Original Transaction Date	Add the Original Transaction Date field to show the Original Transaction Date in the Supply Chain Snapshot.
Past Due Date	Add the Past Due Date field to show the number of days past due in the Supply Chain Snapshot.
Status	Add the Status field to show the transaction status in the Supply Chain Snapshot.

If your custom snapshot form shows the Status field, you can additionally choose to filter the list by transaction status. To do this, use the Filters field on the Available Filters subtab.

To customize Supply Chain Snapshot forms:

1. Go to Lists > Accounting > Items.
2. Click **Customize View**.
3. In the **Field** list, select the appropriate field value.
4. Click **Add**.
5. Click **Save**.

Excluding Predicted Risks

NetSuite enables you to exclude irregular or rare supply and demand from your organization's predictive model as they can negatively affect modeling accuracy. For example, you can remove one-off supplies that support a promotion from the model. Checking the Exclude from Predicted Risk box on a transaction line removes the line from the supply chain risk prediction model training and validation model.

To exclude predicted risk:

1. Select a Purchase Order from the snapshot.
Because the purchase order was created using a custom form, the **Exclude from Predictive Risk** column appears.
2. Go to Customization > Form > Transaction Forms.
3. On the Custom Transactions Forms page, beside click **Custom Purchase Order**, click **Edit**.
4. On the Custom Transaction Form **Sublist Fields** subtab, check the **Exclude From Predictive Risk** box.
5. Click **Save**.

Setting Vendor-Specific Risk Confidence Settings

The Supply Chain Control Tower lets you set default values for how many days late you expect material to arrive from vendors. You can also set your confidence level that these materials will arrive. Your preferences are applied globally, but you can override these settings for each vendor.

When you create a new vendor record, these fields will automatically be set from the default values entered on the Control Tower Preferences. The default values on the Control Tower Preferences are 0 days late and 100 percent confidence. When you enable the Supply Chain Control Tower feature, these fields are added to existing vendor records and set to null.

To set risk confidence settings for a vendor:

1. Go to Lists > Relationships > Vendors.
2. Click **Edit** beside the vendor you want to change.
3. Under User Entry Predicted Risk, enter:
 - **Predicted Days Late/Early** - The number of days late or early you expect this vendor to provide the required material. To indicate days early, enter a negative number.
 - **Predict Risk Confidence** - the confidence, in percentage, you have that this vendor will provide the required material.
4. Click **Save**.

Predicted Risks Portlet

The Predicted Risks portlet predicts whether you can expect a purchase or transfer order to be received on time. It also predicts whether a Sales Order will be fulfilled on time. The system assigns a degree of confidence and a recommendation to help you avoid missing the orders for customer commitments.

Use the Projected Risk portlet to review an order's details and see how the transaction impacts other orders in the system for the selected item. You can also create and assess scenarios that can help you lessen any potential order delivery risks. For example, a prediction that an order could be late by 10 days could show a level of confidence of 75%. In this example, the process suggests moving the order date back by 10 days to ensure that you can fulfill the order on time.

Predictions are available the day after you create an order. These predictions are specific to your organization and are only visible to your authorized users.

The Predicted Risks Portlet

Reviewing Predicted Risks

Use the following procedure to review predicted risks.

To review predicted risks:

1. Go to Lists > Supply Chain > Control Tower Dashboard.
- The probability (%) with which you can expect a purchase order, transfer order, or sales order to meet its due date.
2. To view a specific order, click the corresponding subtab:
 - **Sales Orders** - these orders will not meet the expected ship date.
 - **Transfer Orders** – these transfers will not be received on time.

- **Purchase Orders** – these items will not be received on time.
3. To view the predicted risk order details, click **Predicted Risks**.
This page provides a suggested action you can pursue to ensure the order will not be late.
 4. To see how the transaction (predicted shortage) impacts other orders for this item in the system, click **View Current Snapshot**.
The snapshot enables you to view the order impact. For example, most order balances are positive, but a few balances turn negative. If you do not have inventory on hand to meet the order's ship date, you may need to order more stock or make other adjustments.
 5. If you agree with the recommendation, click **Add Recommendation to Snapshot**.
The simulation appears on the Supply Chain Snapshot popup window.
 - a. To view the simulation record that, click the link in the popup window.
 - b. On the Supply Chain Snapshot Simulation page, select a status:
 - **Authorized**
 - **Implemented**
 - **Rejected**
If you select Rejected, the simulation row disappears.
 - **Under Evaluation**

When the recommendation is followed, the add recommendation button disappears.

Working With the Predicted Risks Portlet

You need to enable the Supply Chain Control Tower and Supply Chain Predicted Risks features to use the portlet.

Predicted Risks are used when the supply planning process cannot provide a prediction.

To enable predicted risks and set preferred defaults:

1. Go to Setup > Company > Enable Features.
2. On the **Items & Inventory** subtab, check the **Supply Chain Control Tower** box.
3. On the **Analytics** subtab, Intelligence Suite section, check the **Supply Chain Predicted Risks** box.
4. On the NetSuite Terms of Service page, click **I Agree**.
5. Click **Save**.
6. Go to Setup > Accounting > Control Tower Preferences.
7. In the **Vendor Predicted Days Late/Early** field, enter the default number of days.
8. In the **Vendor Predicted Risk Confidence** field enter the default confidence percentage.
9. In the **Sales Order Predicted Days Late/Early** field, enter the default number of days.
10. In the **Sales Order Predicted Risk Confidence** field enter the default confidence percentage.
11. In the **Transfer Order Predicted Days Late/Early** field, enter the default number of days.
12. In the **Transfer Order Predicted Risk Confidence** field enter the default confidence percentage.
13. Click **Save**.

The Supply Chain Control Tower feature enables you to enable the **Exclude From Predicted Risk** box. Check this box to exclude predicted risk calculations from purchase orders, transfer orders, and sales orders. By excluding outlier or one-off transactions helps reinforce the accuracy of the predictive model.

To exclude an order from predicted risk:

1. Open a purchase order, transfer order, or sales order.
2. Click **Customize**.
3. On the Custom Transaction Form, click the **Sublist Fields** subtab.
4. Next to the **Exclude From Purchase Order** label, check the **Show** box.
5. Click **Save**.

You can now check the **Exclude from Predicted Risk** box to exclude predicted risk from the selected order.

The Model Creation Process

NetSuite Predicted Risk predictions are based on your organization's historical data. The predicted risks process reviews all fully received orders over the last two years of activity. To keep the data up to date, the system automatically reviews 720 past transactions every three months.

After you enable predicted risks, the model training process begins:

1. NetSuite reviews the last 720 customer transactions for the following order types:
 - **Purchase Orders** – before the date predicted risks were enabled, 720 completely received purchase orders per vendor were reviewed over the past two years.
 - **Transfer Orders** – before the date predicted risks were enabled, 720 transfer orders per location pair were reviewed over the past two years. (From location and To location)
 - **Sales Orders** – before the date predicted risks were enabled, 720 sales orders shipped were reviewed over the past two years.



Note: If you have an external system that creates predictions, NetSuite enables you to manually enter days late and confidence predictions. To learn how to enter predictions manually, see [Manually Entering Predicted Risks](#).

2. The transactions are separated in the following manner:
 - 70% to create the model.
 - 30% to validate the model.
 - The process removes transactions that do not meet model criteria.
3. Every three months the predicted risk model's performance is validated and re-created based on performance degradation.
4. Every night at 2:00 a.m., the system runs all new transactions to create predictions.
5. The process assesses new transactions based on the model to predict the following:
 - Whether the transaction will be late.
 - The number of days the order will be late.
 - The prediction confidence level.
6. If the system returns a value, it uses the following machine learning predictions.
 - The default from the purchase order vendor record.
 - The default from the transfer order from location record.
 - The default from the sales order location record.

If the system cannot find a default, NetSuite uses the default from Control Tower Preferences (Setup > Accounting > Control Tower Preference).

Scheduling Supply Chain Snapshots

A Supply Chain Snapshot simulation of a transaction lets you determine what effect that transaction would have on your inventory if you implemented it.

You can create a supply chain snapshot and refresh it manually. For more information, see [Generating a Supply Chain Snapshot](#).

You can also schedule Snapshots so that they are refreshed regularly.

To schedule a Supply Chain Snapshot:

1. Go to Lists > Supply Chain > Supply Chain Snapshot Schedules.
2. Click **New Schedule Supply Chain Snapshots**.
3. Enter a **Name** for the snapshot schedule.
4. Enter a **Description** for the snapshot schedule.
5. Select an **Item Saved Search**.
6. Select a **Recurrence Frequency**, Daily or Weekly.
7. Select how often you want the refresh to occur in the **Repeat Every** dropdown list.
8. Enter the **Next Date** and **Next Time** when you want the snapshot to be generated.
9. Click **Save**.

Vendor Purchase Orders Overview

NetSuite uses the following data for vendor purchase orders:

- Lead Time is the difference between the purchase orders date and the expected receipt date on the purchase orders line.
- Item Weight is the weight of an item on the purchase orders line.
- The Number of purchase orders lines that have been fully received.
- The Quantity of the items on the purchase order lines that have been fully received.
- The Amount in the base currency of each purchase order line.
- The Internal IDs, which are purchase orders ID, purchase orders line ID, vendor ID, line item ID, line location ID.

When you enter a new transaction, the modeling process calculates how these parameters can affect the new transaction. With this information, the system predicts whether the order might be late.

NetSuite uses the following data for intelligent late transfer orders:

- Ship Location ID is the transaction shipping (fulfilling) location. This is referred to as the From location.
- Receipt Location ID is the transaction receiving location. This is referred to as the To Location.
- Lead Time represents the difference between the expected receipt date and the expected ship date of the line.
- Item Weight is the weight of an item on the transfer order line.
- Item Line Quantity is the number of items on the line.
- Line Count is the number of transfer orders lines that have been fully received.
- Distinct Item Count is the number of items for the transfer order lines that are fully received.
- Item Line Amount is the amount in the base currency of each transfer order line.

- Days Late or Early is the difference between the receipt date and the expected receipt date of the line. This occurs when the quantity received equals the total quantity on a transfer order line.

Manually Entering Predicted Risks

Purchase order predicted risk information is populated from the location fields when intelligent predictions are not available.

You can enter predicted risks information for days late and confidence estimates for transfer and sales orders on the locations record. This enables you to analyze risk to help prevent inventory shortages.

To manually enter projected risks:

1. Go to Lists > Relationship > Vendors.
2. Beside the **Vendor** record you want to update, click **Edit**.
3. Click **Save**.
4. Go to Setup > Company > Locations.
5. From the **Location** list, select the location record you want to update.
6. Click the **User Entry Predicted Risk** subtab.
7. Enter the number of **Sales Order Predicted Days Late/Early**.
8. Enter the **Sales Order Predicted Risk Confidence** percentage.
9. Enter the number of **Transfer Order Predicted Days Late/Early**.
10. Enter the **Transfer Order Predicted Risk Confidence** percentage.
11. Click **Save**.

The Predicted Risks portlet populates from the location field if intelligent predictions are unavailable.

Adding a Snapshot Simulation

Snapshot simulations enable you to create model transactions ("what-if" scenarios) to forecast the effect a transaction could have on your inventory.

To add a simulation from the snapshot page:

1. Go to Lists > Supply Chain > Supply Chain Snapshots.
2. Click the Supply Chain Snapshot # (number) you want to open.
3. To open the Supply Chain Snapshot Simulation page, on the **Supply Chain Snapshot** subtab, **Simulation** column, click **Add**.
4. Select a **Transaction Type**:
 - **Purchase Order**
 - **Sales Order**
 - **Transaction Order**
 - **Work Order**
5. To apply demand and supply to the simulation, check the **For Reschedule** box.

When this box is checked, complete both the Supply and Demand Location sections.

6. Select the name of the simulation **Owner**.
7. Enter a **Quantity**.
8. Enter any other simulation information in the **Memo** field.
9. Select a **Status**.

To assess the effect of the simulation on your inventory before approving it, select **Under Evaluation**.

The **Document Created From** and **Line Created From** fields are populated from the snapshot simulation column information.

10. Complete the **Supply Location** subtab if you selected purchase order, transfer order, or work order as your transaction type:
 - a. Click the calendar icon to select a **Supply Date**.
 - b. Select a **Supply Location**.
 - c. Select a **Supply Entity** customer.
 - d. Select a **Supply Subsidiary**.
11. Complete the **Demand Location** subtab if you selected sales order or transfer order as your transaction type:
 - a. Click the calendar icon to select a **Demand Date**.
 - b. Select a **Demand Location**.
 - c. Select a **Demand Entity** customer.
 - d. Select a **Demand Subsidiary**.



Note: When you check the **For Reschedule** box:

- For demand transactions, the **Supply Date** and **Quantity** fields should be the same as the supply transaction. Enter the new date as the **Demand Date**.
- For supply transaction, the **Demand Date** and **Quantity** fields should be the same as the demand transaction. Enter the new date as the **Supply Date**.

12. Click **Save**.

When the Inventory Status feature is enabled, only the committable inventory is displayed. To indicate that inventory is committable, assign an inventory status that has the **Make Inventory Available for Commitment** box checked. For more information, see [Inventory Status](#).

Vendor Delivery Performance

NetSuite enables you to predict when an item will be delivered to the designated location. For example, you want to track the predicted risk of each vendor based on recent delivery performance.

To enable vendor delivery performance:

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

To learn how to complete this form, see the help topic [Setting Supply Chain Control Tower Preferences](#)

2. Enter the **Day of Week to Analyze Vendor Performance**.
 3. Enter the **Time of Day to Analyze Vendor Performance**.
 4. Enter how often you want to run the analysis in the **Vendor Performance Analysis Frequency** field.
 5. Enter a **Vendor Performance Order Analysis Interval**, in months. The default is six months.
 6. Enter the exact date you want to run the analysis in the **Vendor Performance Analysis Next Date** field.
- The **Last Executed** field displays the date and time the prediction was last run. The next scheduled execution date and time is also displayed.
7. Click **Save**.

The system reviews all vendor orders and receipts for the selected time period and then displays the performance results in the Vendor Performance Calculations window.

To review vendor performance calculations:

1. Go to Lists > Supply Chain > Review Vendor Performances.
- The **Last Executed** field displays the date the calculations were last performed.
2. To location a specific vendor calculation, enter the name in the **Search** field.
 3. Select the **View Selected** option to show only the selected vendors.
 4. The Vendor Performance Calculation form displays the following fields:
 - **Vendor** – the vendor who the calculation performed for.
 - **Current Predicted Days Early/Late** – the current predicted day early/late figure.
 - **Current Predicted Risk Confidence** – the current predicted risk confidence figure.
 - **Calculated Days Early/Late** – the latest day early/late figure.
 - **Calculated Risk Confidence** – the latest risk confidence figure.
 - **Average Days Late/Early** – the average amount that the order will be early or late.
 - **Standard Deviation** – the time beyond the average time the order is late or early.
 - **Number of Orders** – the number of orders included in this calculation.
5. To apply vendor calculations, check the box beside the **Vendor** name.
 6. Click **Submit**.

The system will update the User Entry predicted Risk section on the Vendor record to display Predicted Days Late/Early and Predicted Risk Confidence.

7. To verify that the vendor record was updated, go to Lists > Relationships > Vendors Lists > Relationships > Vendors.
8. To display vendor calculated risk, go to Lists > Supply Chain > Control Tower Dashboard.

Vendor Performance History

To help improve vendor performance analysis, NetSuite enables you to create a Vendor Performance History list view based on a system notes saved search.

To learn more, see the help topic [Saved Searches](#).

The following is an example of a custom saved search that can display vendors who have negative performance trends:

The screenshot shows the 'Criteria' tab selected in the top navigation bar. A tooltip message says: 'Use this tab to specify criteria that narrow down your search.' Below it is a checkbox labeled 'USE EXPRESSIONS'. The main area displays a table with columns: FILTER*, DESCRIPTION*, and FORMULA. The table contains the following rows:

FILTER*	DESCRIPTION*	FORMULA
Record Type	is Entity	
Field	is any of Predicted Days Late/Early, Predicted Risk Confidence	
Field	is Predicted Days Late/Early	
Formula (Text)	starts with Down	CASE WHEN {newvalue}>{oldvalue} THEN 'Down' WHEN {newvalue}={oldvalue} THEN 'Flat' ELSE 'Up' END

This search could produce the following results:

The screenshot shows a search results page titled 'Vendor Delivery Performance Problems: Results'. It includes a 'Return To Criteria' button and an 'Edit this Search' link. The results table has columns: RECORD TYPE, RECORD ID, RECORD ▲, SET BY, DATE, CONTEXT, TYPE, FIELD, OLD VALUE, NEW VALUE, ROLE, and TREND. Two rows of data are shown:

RECORD TYPE	RECORD ID	RECORD ▲	SET BY	DATE	CONTEXT	TYPE	FIELD	OLD VALUE	NEW VALUE	ROLE	TREND
Entity	164	US Vendor - Sacramento Rolling Expertise -x	Mark Wheel	10/6/2021 3:40 pm	UI	Change	Predicted Days Late/Early	5	6	Administrator	Down
Entity	163	US Vendor - West Coast Rolling Stock	Mark Wheel	10/6/2021 3:52 pm	UI	Change	Predicted Days Late/Early	0	1	Administrator	Down

A red arrow points from the 'Formula' link in the top right to the 'TREND' column header.

You can use the NetSuite Dashboard to create a reminder based on your search requirements. The resulting saved search example shows that two vendors have declining delivery performance. Buyers needs to know when vendors are producing negative performance trends.

Vendor Delivery Performance Scores

NetSuite enables you to review the available vendor performance scores after you:

- Create a Purchase Order
- Release orders from the Order Items page
- Release orders from the Order Requisitions page

You can open a vendor list to display late delivery scores based on historic transaction analysis. A similar link from an item on the Order Release page displays the Item Record Vendor list with late delivery scores.

Based on this predicted risk, you can re-formulate your purchase order by changing vendor or altering the order requested date.

To view vendor performance scores:

1. Go to Lists > Relationships > Vendors.
2. Beside the vendor, click **View**.

The vendor record, User Entry Predicted Risk section displays the following:

- **Predicted Days Early/Late** – the number of predicted days the order will be early or late.
- **Predicted Risk Confidence** - the predicted risk confidence percentage.

The Predicted Days Early/Late and Predicted Risk Confidence information is also displayed in Item Records, Order Items, Order Requisitions, and Purchase Orders. To learn more, see [Vendor Delivery Performance](#).

To view vendor performance scores in a purchase order:

1. Go to Transactions > Purchases > Enter Purchase Orders.
2. In the **Purchase Order** form, under the **Vendor** field, click the **Vendor Performance** link.

In the Vendor Performance page, a Custom Vendor Performance Search displays all your vendors and their performance as measured by Predicted Days Early/Late and Predicted Risk Confidence. You can further filter this page by Vendor name, Vendor Category, Customize the View.

Predicting vendor performance after entering a purchase order:

1. Go to Transactions > Purchases > Enter Purchase Orders.
2. Create a new purchase order defining a Vendor, Location, and an item with some quantity.
3. Select a future **Expected Receipt Date**.
4. Click **Save**.

The purchase order is in **Pending Approval** status.

5. Click the **Get Predictions** button to invoke the vendor performance algorithm for this vendor, location, date, and item.

The Supply Chain Predicted Risks pop-up window displays the Predicted Days Late/Early figure.

To learn more, see [Predicted Risks Portlet](#)

Inventory Reporting

NetSuite reports are a powerful tool you can use to assess inventory at all stages of your inventory workflow.

You can view reports with inventory costs, stock levels, activity, valuation, revenue generated and profitability. Then, use the information from reports to identify successes and problems within each workflow process, as well as within the workflow as a whole.

For example, you can view reports that return this inventory data for the previous quarter:

- inventory valuation rises each week
- item sales revenue decreases each week
- gross profitability of your top seller remains level

With this information, you can take action as necessary, changing processes that have created problems and maintaining processes that are successful:

- High inventory values increase overhead and may cut your profitability.
You can investigate items that have a high percentage of total inventory value. Based on their costs and turnover rates, you may need to change your purchasing practices.
- Sales revenue decreases can result from customer dissatisfaction caused by difficulties and delays during fulfillment.
You can investigate items that are frequently backordered and adjust their set reorder points and preferred stock levels.
- A steady profitability on a popular item is a positive indication.
You can maintain the appropriate stock level and price point currently set on the item record. Because it is not problematic, you can focus your attention elsewhere.

When you can take action to make improvements as needed, you can execute more efficient management of your inventory.

It is important to track your inventory so you know what stock you have and what stock you need. Keeping the appropriate levels of stock on hand enables you to maintain a streamlined stock level, which results in reduced overhead. It also enables you to fulfill orders in a timely manner, which results in customer satisfaction.

You can use inventory reports to make regular assessments of stock quantities and identify your replenishment needs to maintain a streamlined inventory. You can also evaluate your overall inventory workflow.

First, determine the status of your inventory and identify your replenishment needs. Then, you can maintain optimum stock levels by purchasing or redistributing inventory as needed to maintain the ideal quantities.

You can use reports to assess your inventory and workflow. Reports can help you identify:

- current stock status
- items that are profitable or problematic
- areas of the inventory workflow that are beneficial or detrimental

Then, you can respond to information in the reports by:

- modifying replenishment to streamline stock levels
- making changes to correct problems in the workflow

To view reports, go to the Reports tab. Inventory reports can be accessed under the Inventory/Items heading.

Note: Links to all reports may not show on the Reports tab. The reports that are available depend on the role assigned to you. For example, an Administrator has access to more reports than a Sales Manager.

Reports can show current status of inventory items and backorders to help you find out what you need.

Inventory assessment can have two main goals: to determine your inventory level or to determine your inventory values. Assessing the level of your inventory tells you how much inventory you have. Assessing the value tells you how much your inventory is worth.

One report can help you make both assessments: [Viewing the Stock Ledger](#).

Other inventory reports can be categorized by two main functions, inventory level assessment and inventory value assessment.

Inventory Levels

You can make an [Inventory Level Assessments with Reports](#) to determine if the quantities you are stocking on hand are the appropriate amounts.

- The [Viewing the Stock Ledger](#) shows activity for items across a period. It is a tool for better understanding inventory SKU activity across classes, departments, and subsidiaries for multiple locations. For example, it can help identify inventory items that are slow-moving, fast-moving, or overstocked. It can help identify inventory investment strategies for planning.
- The [Physical Inventory Worksheet](#) helps you take a physical count of your stock to be sure it matches the quantity in NetSuite.
- Use the [Current Inventory Snapshot Report](#) to monitor inventory levels and determine ordering schedules. Determine a reorder point and preferred stock level, or identify overstocking on items.
- The [Inventory Back Order Report](#) helps you find items that are committed on sales orders, but are not in stock. It also helps you analyze the replenishment process of your workflow. For items repeatedly on backorder, you may consider increasing the reorder point for that item.
- The [Inventory Activity Detail Report](#) shows the quantity per transaction of inventory items. Use this report to identify trends in sales for items and make informed decisions about stocking your items.
- Items that are pending fulfillment are committed to be sold, are in stock and are ready to ship to the customer. The [Items Pending Fulfillment Report](#) shows all open transaction lines on sales orders and can help you to process items to fulfill orders.
- You need to know how quickly each product moves through inventory. It is not efficient to have large quantities of inventory sitting idle on your shelves. Inventory turnover measures item efficiency by examining how quickly you sell a product. The [Inventory Turnover Report](#) helps you assess stock level changes over time. This report lists the cost of sales, average value, turnover rate (or turn rate) and average days on hand for each inventory item.

Inventory Values

[Inventory Value Assessments with Reports](#) help you identify inventory value and profitability, as well as revenue generated by items.

- The [Viewing the Stock Ledger](#) shows activity for items across a period. It is a tool for better understanding inventory SKU activity across classes, departments, and subsidiaries for multiple

locations. For example, it can help identify inventory items that are slow-moving, fast-moving, or overstocked. It can help identify inventory investment strategies for planning.

- The [Inventory Profitability Report](#) shows cost, revenue, and profitability information about your inventory. You can view this report to determine margins on your items and identify items that are most and least profitable. If you operate an online store with NetSuite, this report includes sales from your online store.
- The [Inventory Valuation Report](#) summarizes the value of your inventory at a specific point in time. It can help you identify areas you can potentially use to streamline your inventory. For each inventory item, this report details item name, description, inventory value (in dollars), percentage of total inventory value and quantity on hand.
- An [Inventory Valuation Detail Report](#) shows the transactions affecting the value of your inventory. This report is useful for troubleshooting costing problems with your items because it lists transactions that affect inventory assets.
- An [Inventory Revenue Report](#) shows the total sales amounts for inventory items and overall revenue from your inventory items. You can identify an item that has low sales and is a poor contributor to your revenue total and may need to be discontinued. Pinpoint items with high sales and are good contributors to your revenue total to maintain the stock, marketing, and pricing of these items.

If you operate an online store with NetSuite, these reports include sales from your store.

- An [Inventory Revenue Detail Report](#) shows the revenue generated by your inventory items for a particular period by sales transaction. Use this information to determine which items are successful items by finding items that generate high revenue and have a high gross profit percentage.

If you operate an online store with NetSuite, these reports include sales from your store.

Viewing the Stock Ledger

The Stock Ledger report helps you manage inventory by showing activity for items over a period. It is a tool you can use to better understand inventory activity across classes, departments, and subsidiaries for multiple locations. For example, stockrooms, warehouses, and retail stores. It can help identify inventory items that are slow-moving, fast-moving, or overstocked. It can help identify inventory investment strategies and planning, as well as improve the effectiveness of item promotions.

For example, on the report, you can define a time period from November 1st to November 30th. The report displays the following item data for the defined period:

- What was the beginning count of inventory on hand at the start?
- What were all inputs that came in?
- What were all outputs that went out?
- What was the final count of inventory on hand at the end?



Note: In accounts that use the Multiple Units of Measure feature, quantities displayed on the Stock Ledger report are in stock units.

The Stock Ledger report returns data on inventory items and assembly items.

To use the Stock Ledger report, you must have the Inventory feature enabled in your account.

If you use the Multiple Units of Measure feature, quantities are displayed in stock units.

If the Multi-Currency feature is enabled in your account, values on this report are displayed in the primary currency of your account.

In NetSuite OneWorld, values are displayed in the primary currency for your subsidiary.

To view the stock ledger:

1. Go to Reports > Inventory/Items > Stock Ledger.
- A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.
2. Make selections in the following fields in the footer of the report to define the data returned by the report:
 3. Define a date range using one of the following:
 - Make a selection in the **Date** field.
 - Make selections in the **From** field and the **To** field.
 4. If you use NetSuite OneWorld, the **Subsidiary Context** field enables you to filter the report data by subsidiary.
 - a. Make a selection to display data for a different subsidiary.
By default, the report displays data for the top-level, or root-parent, subsidiary.
 - b. Select an option appended with (Consolidated) to display data for all child subsidiaries of the consolidated parent subsidiary.
After you have selected a subsidiary context, this selection is maintained each time you rerun the report, until you change the subsidiary context again.
 5. If you use the Multi-Book Accounting feature, make a selection in the **Accounting Book** field.
 6. Click **Refresh** to apply your selections and reload the report.

The Stock Ledger report can also be customized. For example, your account includes many combinations of items and locations. You can customize the report to filter the results and reduce the time required to generate the report. For details, read the help topic [Report Customization](#).

Data is displayed using the following columns:

- **Location**
- **Description**
- **Class**
- **Department**
- **Subsidiary**
- **Beginning Inv Qty On-Hand** – Inventory quantity as of the From date
- **Beginning Average Cost** – Average cost calculated as (Beginning Inv On-Hand Value / Beginning Inv Qty On-Hand).

This calculated average can be different from the item cost recorded for the item. The cost displayed is determined by the period dates specified and can change across the time horizon. NetSuite provides an average cost for a point of reference.

i Note: If the item uses Group Average costing, note the following. The As Of date on at least one Balance Location Costing Groups Accounts bulk process must equal the From date of the Stock Ledger. This is to ensure the location account values to be accurate for the report. For details about the Balance Location Costing Groups Accounts bulk process, read the help topic [Balance Location Costing Group Accounts](#).

- **Beginning Inv On-Hand Value** – Inventory Asset Account balance as of the From date
- **Receipts** – Sum of quantities on item receipts, standalone bills, assembly builds, and work order completions between the From date and To date. This value represents all inputs received into inventory.

- **Other Inv Inputs** – Sum of quantities on customer returns, positive inventory adjustments, positive inventory transfers, and positive inventory worksheet adjustments between the From date and To date. This value represents all non-receipt inputs that added inventory.
- **Total Input Quantity** – Sum of Receipts quantity and Other Inv Inputs quantity
- **Value of Inputs** – Sum value of inventory account transactions associated with the Total Input Quantity
- **Last Receipt Date** – Date of the most current receipt transaction between the From date and To date. This is the date of the most recent receipt input. If the most recent receipt is outside the selected period, the column is blank.
Assessing this date can help you determine how active an item is for the duration of the selected time period.
- **Sales** – Sum of quantities of cash sales, standalone invoices, and item fulfillments between the From date and To date. This value represents all sale outputs from inventory.
- **Other Inv Outputs** – Sum of quantities of assembly unbuilds, work order issues, negative inventory adjustments, negative inventory transfers, and negative inventory worksheet adjustments. This sum is between the From date and To date. This value represents all non-sale outputs from inventory.
- **Total Output Quantity** – Sum of Sales and Other Inv Outputs quantities
- **Value of Outputs** – Sum of inventory account transactions associated with the Total Output Quantity
- **Last Sales Date** – Date of the most current sales transaction between the From date and To date. This is the date of the most recent sale output. If the most recent sale is outside the selected period, the column is blank.
Assessing this date can help you determine how active the item is for the duration of the selected period.
- **Ending Inv Qty On-Hand** – The total ending quantity calculated as [Beginning Inventory Quantity On Hand + (Total Input Quantity – Total Output Quantity)].
- **Ending Average Cost** – The total ending average cost calculated as (Ending Inv On-Hand Value / Ending Inv Qty On-Hand).

i Note: If the item uses Group Average costing, note the following. The As Of date on at least one Balance Location Costing Groups Accounts bulk process must equal the From date of the Stock Ledger. This is to ensure the location account values to be accurate for the report. For details about the Balance Location Costing Groups Accounts bulk process, read the help topic [Balance Location Costing Group Accounts](#).

- **Ending Inv On-Hand Value** – The total ending average value calculated as [Beginning Inv On-Hand Value + (Value of Inputs – Value of Outputs)] .

Inventory Level Assessments with Reports

The following reports can help you identify current stock levels and determine replenishment needs:

- [Viewing the Stock Ledger](#)
- [Physical Inventory Worksheet](#)
- [Current Inventory Snapshot Report](#)
- [Inventory Back Order Report](#)
- [Inventory Activity Detail Report](#)
- [Items Pending Fulfillment Report](#)
- [Inventory Turnover Report](#)

- [Demand History by Item Report](#)
- [Item Demand Plan by Item Report](#)
- [Item Demand Forecast vs. Actual Report](#)

How Kits and Kit Parts Affect Quantities Displayed in Reports

When using reports that display inventory item quantities, it is useful to familiarize yourself with how kits and 'kit part' quantities are displayed. Some items can be listed both as parts of kits and as individual items, so quantities may appear larger than they are. This is especially relevant for the following reports:

- [Items Pending Fulfillment Report](#)
- [Inventory Back Order Report](#)
- [Sales Back Order Report](#)
- [Sales Orders Pending Fulfillment Report](#)

These standard reports show quantities for individual items which can include quantities attributed to kits. Using the Sold as a Kit/Assembly Member filter, you can modify the way that standard reports display quantities.

Example using the Sold as a Kit/Assembly Member filter

A Custom Items Pending Fulfillment Report might have the following two items of inventory:

- DVD-R
- DVD-R 5 Pack

The second item DVD-R 5 pack is a kit which consists of 5 DVD-R items. You have 4 kits of DVD-R 5 pack committed items and 3 DVD-R committed items. On the standard report those 2 line items will be displayed with the following quantities:

- DVD-R: 23
- DVD-R 5 pack: 4

This report correctly displays a total of 23 DVD-Rs committed. However, it does not highlight that 20 of the 23 are part of the kit listed as the next line item. This may in some cases give the illusion that 43 DVD-Rs have been committed, whereas in fact only 23 have been committed.

Using the filter Sold as a Kit/Assembly Member, you can modify the standard report. Set the filter to false and the report will display the following 2 line items:

- DVD-R: 3
- DVD-R 5 Pack: 4

Now the line item DVD-R does not include the 20 DVD-Rs sold as part of DVD-R 5 pack kits. See the help topic [Filtering Data on Reports](#) for more details on how to apply filters to reports.

Physical Inventory Worksheet

A Physical Inventory Worksheet is a tool to maintain accurate inventory records by comparing your physical inventory count to inventory counts in your account.

This report lists all on-hand inventory. For each item, it shows the name, description, preferred vendor and quantity on hand.

When you print the report, there are lines to enter the results of a physical count of your inventory. Then you can compare your account's inventory count to what you have in stock.

If you find discrepancies, you can adjust the quantity on hand on the item record. For more information on adjusting inventory, see [Inventory Adjustments](#).

To see a physical inventory worksheet:

Go to Reports > Inventory/Items > Physical Inventory Worksheet.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

i Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Current Inventory Snapshot Report

The Current Inventory Snapshot report provides a snapshot of real-time inventory data. You can use it to monitor inventory levels and determine ordering schedules.

The Current Inventory Snapshot report can help you pinpoint which items are low on stock and place orders accordingly.

For each inventory item, this report lists the item name, description, and preferred vendor. This report shows the following amounts for each location and in total:

- **Reorder Point** – the stock level at which a new order for the item needs to be placed.
When an item reaches its Reorder Point, a reminder is generated to purchase the item.
- **Quantity On Hand** – the number of units of an item in stock.
- **Quantity On Order** – the number of units of an item pending receipt from a vendor.
- **Quantity Committed** – the number of units of an item reserved by unfulfilled sales orders.
- **Quantity To Order** – the number of units of an item you need to order to maintain stock.
- **Preferred Stock Level** – the optimum quantity to maintain in stock of an item.

Along with the reorder point, this quantity is used to determine your replenishment needs on the Order Items page.

You can also choose to filter the report to show only items whose stock levels are at or below their Reorder Point.

i Note: If you use the Multi-Location Inventory feature, this report returns values that are grouped per location for most, but not all, fields. The values shown on this report are for each item's preferred location for the following fields:

- **Average Cost** – total units available during a period divided by the starting inventory cost plus the cost of additions to inventory.

- **Last Purchase Price** – the most recent transaction price at any location.
- **Last Transaction Date** – the most recent transaction date at any location.
- **Preferred Stock Level** – the optimum quantity to maintain in stock of an item. The ideal quantity is the amount you need to fulfill orders in a timely manner without either running out or overstocking.
- **Reorder Point** – the stock level at which a new order for the item needs to be placed.
When an item reaches its Reorder Point, a reminder is generated to purchase the item.
- **In Transit** – items are in the process of being transported.

Also, a value does not display for these fields for items that do not have a preferred location set.

To see a current inventory snapshot report:

Go to Reports > Inventory/Items > Current Inventory Snapshot.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

On the filter toolbar, you can select the subsidiary and location or check the **At or Below Reorder Point** box.

The information in this report is similar to the information shown on the Order Items page. For more information, read the help topic [Bulk Orders](#).

 **Note:** This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Inventory Back Order Report

The Inventory Back Order report shows the number of items backordered. Backordered items are items that are committed on sales orders, but are not in stock.

When using reports that display item quantities, kits and kit parts can affect the quantities displayed on reports. Use the filter Sold as a Kit/Assembly Member to modify reports to not display quantities for kit parts. To learn more, see [How Kits and Kit Parts Affect Quantities Displayed in Reports](#).

For each inventory item, this report details which items are backordered by transaction. The report lists each item name, order number, customer name, quantity ordered, quantity fulfilled and quantity open.

You can use this report to assess stock status, as well as analyze the replenishment process of your workflow.

Assess your stock status by seeing how many items have quantities backordered. Viewing this report on a regular basis can help you identify trends for items that are frequently out of stock. Then, you can decide if you need to change your current replenishment practices.

To see an inventory back order report:

Go to Reports > Inventory/Items > Inventory Back Order Report.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.



Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Inventory Activity Detail Report

The Inventory Activity Detail report shows the activity associated with your inventory items. The report shows the quantity per transaction of inventory items.

You can use this report to identify trends in sales for items. Then you can make informed decisions about stocking your items.

To see an inventory activity detail report:

Go to Reports > Inventory/Items > Inventory Activity Detail.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

Items Pending Fulfillment Report

Items that are pending fulfillment are committed to be sold, are in stock and are ready to ship to the customer. The Items Pending Fulfillment report shows all open transaction lines on sales orders and can help you to process items to fulfill orders.

The report is sorted by item, and then grouped by sales order. For each item it gives the items, document number, customer, quantity ordered, quantity fulfilled and quantity committed for open customer orders.

To see an items pending fulfillment report:

Go to Reports > Inventory/Items > Items Pending Fulfillment.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

When using reports that display item quantities, kits and kit parts can affect the quantities displayed on reports. Use the filter Sold as a Kit/Assembly Member to modify reports to not display quantities for kit parts. To learn more, see [How Kits and Kit Parts Affect Quantities Displayed in Reports](#).



Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Inventory Turnover Report

For a streamlined inventory, it is not efficient to have large quantities of inventory sitting idle on your shelves. To maximize the efficiency of your stock, you need to know how quickly each product moves through inventory.

The Inventory Turnover Report helps you assess stock level changes over time. This report lists the cost of sales, average value, turnover rate (or turn rate) and average days on hand for each inventory item. This data is based on the time period shown in the footer of the report.

Inventory turnover measures item efficiency by examining how quickly you sell a product. Turnover is based on the number of times stock is turned over, or replaced, during a certain period.

The turnover rate is measured as cost of sales divided by the average inventory value, or:

$$[\text{Cost of Sales} / \text{Average Inventory Value}] = \text{Inventory Turnover Rate}$$

For example, the annual cost of sales for item AB123 is \$1000 per year.

- If the average inventory value is \$1000, then the turnover rate is 1. ($1000 / 1000$)
- If the average inventory value is \$250, then the turnover rate is 4. ($1000 / 250$)

The average inventory value is calculated as follows:

Average Inventory Value =

$$[\text{SUM (on hand value on the last day of each month)} / \# \text{ of months in period}]$$

Use data on this report to make decisions about your inventory management. For example, compare the current year turnover rate of an item with the previous year turnover rate.

A turnover rate increase may indicate stock is not ordered often enough, or may indicate an increase in demand. Top-selling items move through inventory faster and have a higher turn rate.

A low turnover rate means the item is not moving through inventory quickly. A turnover rate decrease may indicate that too much stock is being ordered and kept on hand. It could also indicate poor sales.

After you identify an item with poor turnover, you could increase the turn rate and efficiency of this item. Decrease the amount you order from the vendor each time. Purchasing stock in lower quantities at more frequent intervals benefits you in several ways:

- It decreases the funds you have tied up in idle stock.
- It enables you to use revenue generated from sales of the product to replenish stock.

The Inventory Turnover Report also shows the average days on hand for items. This provides an idea of how long it takes to run out of each item during the period specified. Average days on hand is calculated as [$\# \text{ of days in month(s)} \text{ of selected date range} / \text{inventory turnover rate}$].

To see an inventory turnover report:

Go to Reports > Inventory/Items > Inventory Turnover.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click Cancel Report to stop the report from loading.



Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Demand History by Item Report

The Item Demand History by Item report shows the demand history for your items as the number of units sold over time. The demand history shown is the historical data that is used for analysis in demand calculations.

To see demand across a specific period, select a range in the date field, or enter a custom date range.

The historical demand displayed is based on the Transactions to Consider preference. This determines the transactions that are included in demand calculations.

- If your setting is Orders, then demand is calculated using approved, non-canceled sales orders. If you use the Assemblies feature, then work orders are considered also.
- If your setting is Actual Sales, demand is calculated using cash sales and invoices. Sales orders are *not* used to calculate demand. If you use the Assemblies feature, then assembly builds are considered also.

Inventory demand calculations consider only transactions that decrease an item's stock level. For example, an assembly build increases the stock level for the assembly item and decreases the stock level for the assembly item's components. In this case, the demand plan calculation considers the assembly build only for the assembly item's components and not for the assembly item.

For details about setting this preference, read [Setting Up Demand Planning](#).

To see the item demand history by item report:

Go to Reports > Demand Planning > Item Demand History by Item.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

To see demand across a specific period, select a range in the Date field or enter a custom date range.

Item Demand Plan by Item Report

The Item Demand Plan by Item report displays the item demand quantity by item.

To see the item demand plan by item report:

Go to Reports > Demand Planning > Item Demand Plan by Item.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

To see demand across a specific period, select a range in the Date field or enter a custom date range.



Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Item Demand Forecast vs. Actual Report

The Item Demand Forecast vs Actual report shows the forecasted demand for an item versus demand for the item across a certain period. This report helps you determine the accuracy of the forecast as well as whether supply or pricing needs to be adjusted for an item.

For example, the forecast predicted a spike in sales for the month. However, sales remained flat. Therefore, adjustments may be needed to your forecasting values.

Additionally, you can make short-term assessments about supply and pricing adjustments:

- In a demand-pull environment, a discrepancy between the forecast and actual numbers may imply that the production or procurement amount needs to be adjusted.
- In a supply-push environment, a discrepancy between the forecast and actual numbers may imply that the price needs to be adjusted. This adjustment should be based on the expected amount being

produced or procured. For example, an item with a large amount of unexpected overstock can be placed on sale with a special price.

You can display demand for an item by the week or by the month.

The historical demand displayed is based on your setting for the Transactions to Consider preference. This determines the transactions that are included in demand calculations.

- If your setting is Orders, then demand is calculated using approved, non-canceled sales orders.
- If your setting is Actual Sales, then demand is calculated using cash sales and invoices. Sales orders are *not* used to calculate demand.

For details about setting this preference, read [Setting Up Demand Planning](#).

To see the item demand forecast vs. actual report:

Go to Reports > Demand Planning > Item Demand Forecast vs Actual.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

To see demand across a specific period, select a range in the Date field or enter a custom date range.

Note: This report does not support reporting by period even when the Report by Period preference is set to All Reports. The Report by Period preference can be configured at Home > Set Preferences, on the Analytics subtab.

Inventory Value Assessments with Reports

The following reports can help you identify inventory value and profitability, as well as revenue generated by items:

- [Viewing the Stock Ledger](#)
- [Inventory Profitability Report](#)
- [Inventory Valuation Report](#)
- [Inventory Valuation Detail Report](#)
- [Inventory Revenue Report](#)
- [Inventory Revenue Detail Report](#)

Inventory Profitability Report

The Inventory Profitability report shows cost, revenue, and profitability information about your inventory. You can use this report to view and analyze profitability of your items.

Note: NetSuite returns values only if the reporting period has revenue, such as invoice or cash sales.

For each inventory item, this report details:

- item name
- description
- quantity sold

- total cost
- total revenue
- gross profit dollars
- percent of total profit
- gross profit percentage

 **Note:** The gross profit percentage calculations are based on selling price, not cost.

If you operate an online store with NetSuite, this report includes sales from your online store.

You can view this report to determine margins on your items and identify items that are most and least profitable.

To see an inventory profitability report:

Go to Reports > Inventory/Items > Inventory Profitability.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

Inventory Valuation Report

The Inventory Valuation report summarizes the value of your inventory at a specific point in time. You can use this report to analyze the quantities and value of active, on-hand inventory items.

For each inventory item, this report details item name, description, inventory value (in dollars), percentage of total inventory value and quantity on hand.

Use this report to identify areas you can potentially use to streamline your inventory.

For example, report shows item #JK051 has a high dollar value and high percentage of total inventory. You might investigate the item as a problem. To find the problem, consider the item's cost and turnover rate:

- If JK051 has a high cost, you can expect to have a larger investment in stocking it. However, if your purchase rate closely follows the sales rate of the item, then stock is relatively ideal.
- If JK051 has a low cost, or your purchase rate is higher than your sales rate, then the item may need re-evaluating. Keeping expensive items in stock that have low turnover can increase your overhead. You may be purchasing more than you need and have unnecessary cash tied up in that item.

Using this report to identify problem items helps you streamline your inventory by keeping an optimal number of your items in stock.

After you identify potential problems using the Inventory Valuation report, you can use the [Inventory Valuation Detail Report](#). This report lets you examine transactions related to problem items.

 **Note:** When running the inventory valuation report for a past date, NetSuite does not recalculate the average cost as of the past date. Average cost is adjusted based only on changes made to transactions.

To see an inventory valuation report:

Go to Reports > Inventory/Items > Inventory Valuation.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

 **Note:** Landed cost is included in the Unit Value column.

Inventory Valuation Detail Report

An Inventory Valuation Detail report shows the transactions affecting the value of your inventory. This report is useful for troubleshooting costing problems with your items because it lists transactions that affect inventory assets.

For example, report shows item #JK051 has a high dollar value and high percentage of total inventory. You might investigate the item as a problem. You can determine if JK051 has a purchase rate that is higher than its sales rate by viewing this report. It details all related transactions, such as purchases, bill payments, sales, invoices, inventory adjustments, assembly builds, fulfillments, and more.

 **Note:** When adjusting inventory, NetSuite allocates the excess cost of inventory to the last serial number entered. NetSuite does not divide the excess cost among the total number of serials and allocate the excess to each of them.

This is also true when you add serial numbers to the system through other inventory increasing transactions such as stand-alone bill and item receipt. In the inventory cost allocation example that follows, serial number 1681, the last serial number entered was allocated the excess cost. Note: 1679 - \$12,666.11, 1680 - \$12,666.11, and 1681 \$12,666.13.

To see an inventory valuation detail report:

Go to Reports > Inventory/Items > Inventory Valuation > Detail.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

Inventory Revenue Report

An Inventory Revenue report shows the total sales amounts for inventory items and overall revenue from your inventory items.

Revenue is an increase in assets or reduction in liabilities that results in an increase of equity, or net worth. Sales of your items and services result in revenue.

You can use inventory revenue reports to view and analyze sales quantities and value of active, on-hand inventory items.

If you operate an online store with NetSuite, this report will include any sales from your store.

You can use this report to help maximize your company's revenue by analyzing inventory successes and problems.

For example, use this report to re-evaluate your strategy for problematic items. You can pinpoint an item that has low sales and is a poor contributor to your revenue total. Then, you can decide to restructure the item's pricing or marketing strategy, or even to discontinue carrying the item.

Items that are successful can be identified and fostered. For example, you can pinpoint items that have high sales and are good contributors to your revenue total. Then, you can maintain the stock, marketing, and pricing of these items.

To see an inventory revenue report:

Go to Reports > Inventory/Items > Inventory Revenue.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

Inventory Revenue Detail Report

An Inventory Revenue Detail report shows the revenue generated by your inventory items. You can view and analyze sales revenue of active, on-hand inventory items.

This report shows revenue for a certain period by sales transaction. For each transaction, the report shows the item name, date sold, transaction number, quantity sold, sales price and total revenue.

If you operate an online store with NetSuite, these reports include sales from your store.

Use this information to determine which items are successful items by finding items that generate high revenue and have a high gross profit percentage. For example, you can filter the report to show revenue generated this month and determine the item that generated the highest revenue.

After you find the top revenue-generating item, you can use the Inventory Profitability report to determine the success of the item.

- If an item generates high revenue, but low gross profit, you may consider raising the sales price of the item.
- If an item generates a high revenue and a high gross profit, you know the item is successful and want to maintain the item.

By analyzing reports and item records to manage your inventory, you can maintain a streamlined inventory.

To see an inventory revenue detail report:

Go to Reports > Inventory/Items > Inventory Revenue > Detail.

A message appears indicating that your report is loading. The status bar indicates the progress as your report loads. You can click **Cancel Report** to stop the report from loading.

Supply Chain Management Reports

Supply Chain Management provides consolidated, real-time data for supply chain processes, making information accessible across subsidiaries and resulting in improved efficiency and transactions workflow.

You can print the following supply chain forms and reports:

- [Inventory Count Sheet](#) – This document provides information on items that need to be counted. Warehouse personnel can use the inventory count sheet to perform physical inventory counts and inspections.
- [Daily Shipment Detail Report](#) – This document provides high-level visibility into shipment activities in the warehouse on a daily basis. This report lists the recipients and shipping information for each package, with summary totals and provides daily information on new shipments per status.
- [Manufacturing Dispatch List](#) – This document consolidates manufacturing operation tasks and provides details of outstanding operations by work center.

- [Manufacturing Traveler](#) – This document provides information on products that need to be created or repaired, and details of the specific tasks needed in creating a product. This form is passed from one work center to another as each manufacturing task is completed.

Availability

Supply Chain Management Reports is available in the shared Supply Chain Management SuiteApp when you have the Advanced Inventory module. The SuiteApp also includes the Manufacturing Task Scheduler feature. For more information about this feature, see the help topic [Manufacturing Task Scheduler](#).

Refer to the following for information about other features included in the Supply Chain Management SuiteApp:

- [Customer Part Number](#)
- [Estimated Landed Cost](#)
- [Engineering Change Order](#)
- [Item Substitution on Sales Orders](#)

For more information about the SuiteApp, contact your NetSuite account manager.

Limitations

Be aware of the limitations of Supply Chain Management Reports:

- If the application encounters extremely long texts when generating a form, these texts may be clipped to fit into the table.
- When an invalid UPC code error is encountered, the form is not generated.
- System-generated bar codes containing extremely long item bar code names are compressed to fit into the table. Consequently, the bar code might not be readable.
- **Mark All** and **Unmark All** capability is only applied to entries on the current page.
- If you configured the application to send email notifications, note the following. The file link included in the email message can be viewed only when you are logged in to your NetSuite account.
- The maximum report file size is 5MB.

Prerequisites

To enable supply chain management prerequisites:

1. Go to Setup > Company > Enable Features.
2. To access the Daily Shipment Detail Report page, on the **Transactions** subtab enable **Advanced Shipping**.
3. On the **Items & Inventory** subtab:
 - To access the Inventory Count Sheet page, you must enable **Inventory Count**.
 - To access the Manufacturing Dispatch List and the Manufacturing Traveler page, you must enable **Manufacturing Routing and Work Center** and **Manufacturing Work in Process**.
 - To enable bar code printing, you must enable **Bar Coding and Item Labels** and either **Inventory Count** or **Manufacturing Routing and Work Center**.
 - To be able to sort inventory count sheet by item or bin, you must enable **Inventory Count** and **Bin Management**.

- To enable printing of serial or lot number, you must enable **Inventory Count** and either **Serialized Inventory** or **Lot Tracking**.
- 4. To generate PDF reports, on the **SuiteCloud** subtab enable **Advanced PDF/HTML (Beta) Templates**.

To learn more, see the help topic [Enabling Features](#).

Installing Supply Chain Management

To install supply chain management:

1. Enable the required features and preferences:
 - See [Prerequisites](#) for the Supply Chain Management Reports.
 - See the help topic [Prerequisites](#) for the Manufacturing Task Scheduler.
 - See the help topic [Prerequisites for Customer Part Number](#).
 - See the help topic [Prerequisites for Estimated Landed Cost](#).
 - See the help topic [Prerequisite for Item Substitution on Sales Orders](#).
 - See the help topic [Prerequisite for Engineering Change Order](#).
2. Install the Supply Chain Management SuiteApp by going to Customization > SuiteBundler > Search & Install Bundles (Administrator).

Look for the SuiteApp with the following details:

- Bundle Name: **Supply Chain Management**
- Bundle Id: **47193**

Supply Chain Management is a managed SuiteApp and is automatically updated whenever there are changes. Issue fixes and enhancements are available after the SuiteApp is updated in your account.

3. To verify that the SuiteApp has been installed in your account, go to Customization > SuiteBundler > Search & Install Bundles > List.

Supply Chain Management should be displayed on the Installed Bundles page.

To learn more, see the help topic [Installing a Bundle](#).



Note: Supply Chain Management supports the **Multi-Language** feature. If the feature is enabled in your account, you can choose from the list of system-supported languages to use in your NetSuite user interface. For more information, refer to [Configuring Multiple Languages](#) and [Choosing a Language for Your NetSuite User Interface](#).

Setting Up Supply Chain Management Reports

Roles and Permissions in Supply Chain Management

The following roles are provided Full access upon installation of Supply Chain Management:

- CEO
- CFO
- Sales Vice President

- Accountant
- Accountant (Reviewer)
- Bookkeeper
- Warehouse Manager

i Note: To generate a Manufacturing Dispatch List and a Manufacturing Traveler, you must set the **CRM Groups** permission (under the Lists subtab) to **View**. For more information on setting permissions, see the help topic [NetSuite Permissions Overview](#).

NetSuite Center views can vary depending on your role. You can view specific pages using the following path:

- Supply Chain Management main page:
 - Administrator – Transaction > Management > Supply Chain Management
 - Warehouse Manager – Inventory > Other > Supply Chain Management
 - Executive or Accounting – Financial > Other > Supply Chain Management
- Inventory Count page:
 - Administrator – Transaction > Inventory > Print Inventory Count Sheet
 - Warehouse Manager – Inventory > Inventory > Print Inventory Count Sheet
 - Executive – Financial > Adjustments > Print Inventory Count Sheet
 - Accounting – Financial > Inventory > Print Inventory Count Sheet
- Manufacturing Dispatch List page:
 - Administrator – Transaction > Manufacturing > Print Dispatch List
 - Warehouse Manager – Inventory > Manufacturing > Print Dispatch List
 - Executive or Accounting – Financial > Manufacturing > Print Dispatch List
- Manufacturing Traveler page:
 - Administrator – Transaction > Manufacturing > Print Traveler
 - Warehouse Manager – Inventory > Manufacturing > Print Traveler
 - Executive or Accounting – Financial > Manufacturing > Print Traveler
- Daily Shipment Detail Report page:
 - Administrator – Transaction > Management > Supply Chain Management > Daily Shipment Detail
 - Warehouse Manager – Inventory > Other > Print Supply Chain Forms > Daily Shipment Detail
 - Executive or Accounting – Financial > Other > Print Supply Chain Forms > Daily Shipment Detail

Setting Supply Chain Management Preferences

You can set preferences to customize how the forms appear and to specify details you want to include in the form.

Go to Transaction > Management > Supply Chain Management > Preferences, and then click **Edit**.

i Note: The navigation paths used in the procedures are based on the Administrator role. If you are not an administrator, you may see a different view of the NetSuite Center. For more information, see [Roles and Permissions in Supply Chain Management](#).

To set up General preferences:

1. On the **General** subtab, check the **Print Barcode** box to include bar codes on the printed form.
2. From the **Item Barcode** list, select whether you want the bar code to be generated based on the **Item Name** or **UPC Code**.
3. Select the **Send form generation email notification** box if you want to receive an email notification when supply chain forms have been generated.

To set up Inventory preferences:

1. On the **Inventory** subtab, select whether you want to sort the inventory count sheet by item or bin.
2. Select **Print Inventory Count Sheet with Serial/Lot Number** if you want the serial number or lot number to appear in the form.
3. In the **No. of Lines for Serial/Lot Number** field, specify the number of lines to allot for the serial or lot number.

For preferences related to other Supply Chain Management SuiteApp features, see the following topics:

- [Enabling Customer Part Number](#)
- [Enabling Estimated Landed Cost](#)
- [Enabling Item Substitution on Sales Orders](#)
- [Enabling Engineering Change Order](#)

Modifying Deployment Schedule of the Clean Up Process (Scheduled Script)

A scheduled script runs one time per day to clean up process requests that are terminated unexpectedly. You can modify the scheduling based on your preferences.

To edit the script deployment schedule:

1. Go to Customization > Scripting > Script Deployments.
2. Click the **Edit** link for **SCM Background Cleanup Process SS**.
3. On the Script Deployment page, click **Edit**.
4. In the **Schedule** subtab, change the timing of the script according to your preference.

For more information on NetSuite's Scheduled Scripts, see the help topic [Scheduled Scripts](#).

Printing Supply Chain Reports

Inventory Count Sheet

The Inventory Count Sheet generates a list of items that you can use for inventory counts and inspections. You can print the Inventory Count Sheet only when Inventory Count status has been set to **Started**.

To print an inventory count sheet:

1. Go to Transaction > Management > Supply Chain Management.

Alternatively, you can also go to Transaction > Inventory > Print Inventory Count Sheet.

2. Under **Inventory**, click the **Inventory Count Sheet** link.

On the Print Inventory Count Sheet page, the table displays a list of available forms. You can refine the list by specifying values for the following filters:

- Subsidiary
- Location

3. To select a form from the table, do one of the following:

- In the **Select Inventory Count** field, enter the number for a form.
The **Print** box for the specified form is automatically selected.
- Check the **Print** box next to the form you want to print.
- Click **Mark All** to select all forms.

4. Click **Print** to print the form.

If you do not want to continue, click **Go to Main** to return to the Supply Chain Management page.

To view the printing status, go to Transaction > Management > Supply Chain Management, and then click the Form Printing Status link. For more information, see [Viewing Report Printing Status](#).

Daily Shipment Detail Report

The Daily Shipment Detail Report generates a list of shipments, with packages released from the warehouse within the day. Only items with Fulfillment Status of **Shipped** are included in the report.

To print a daily shipment detail report:

1. Go to Transaction > Management > Supply Chain Management.
2. Under **Inventory**, click the **Daily Shipment Detail Report** link.

On the Daily Shipment Detail Report page, the table displays a list of available forms. You can refine the list by specifying values for the following filters:

- Subsidiary
- Location
- From Date
- To Date



Note: On first load of the Daily Shipment Detail Report, both the **From Date** and **To Date** fields are set to the current date.

3. To select a form from the table, do one of the following:

- In the **Ref. No.** field, enter the reference number of the form.
The **Print** box for the specified form is automatically selected.
- Check the **Print** box next to the form you want to print.
- Click **Mark All** to select all forms.

4. Click **Print** to print the form.

If you do not want to continue, click **Go to Main** to return to the Supply Chain Management page.

To view the printing status, go to Transaction > Management > Supply Chain Management, and then click the Form Printing Status link. For more information, see [Viewing Report Printing Status](#).

Manufacturing Dispatch List

The Dispatch List provides a list of outstanding operation tasks that you can provide to teams. On the Manufacturing Operation Task record, the **Dispatched** box is automatically checked after the task is included and printed out on a Dispatch List.

To print a dispatch list:

1. Go to Transaction > Management > Supply Chain Management.
Alternatively, you can also go to Transaction > Manufacturing > Print Manufacturing Dispatch List.
2. Under **Manufacturing**, click the **D ispatch List** link.

On the Print Manufacturing Dispatch List page, the table displays a list of available forms. You can refine the list by specifying values for the following filters:

- Subsidiary
- Location
- Work Center
- Assembly Item
- Work Order Status
- Task Status
- Dispatched

i Note: The table shows forms with a Work Order Status of **In Process** and **Released**, and a Task Status of **In Progress** and **Not Started**.

3. To select a form from the table, do one of the following:
 - From the **Select Order Number** field, enter the number for a form.
The **Print** box for the specified form is automatically selected.
 - Check the **Print** box next to the form you want to print.
 - Click **Mark All** to select all forms.
4. Click **Print** to print the form.

If you do not want to continue, click **Go to Main** to return to the Supply Chain Management page.

To view the printing status, go to Transaction > Management > Supply Chain Management, and then click the Form Printing Status link. For more information, see [Viewing Report Printing Status](#).

Manufacturing Traveler

All work orders with status of **In Process** and **Released** are included in the Manufacturing Traveler list. For each work order, the operation sequence, name, and other details are provided.

To print a manufacturing traveler:

1. Go to Transaction > Management > Supply Chain Management. .
Alternatively, you can also go to Transaction > Manufacturing > Print Manufacturing Traveler.
 2. Under **Manufacturing**, click the **Traveler** link.
- On the Print Manufacturing Traveler page, the table displays a list of available forms. You can refine the list by specifying values for the following filters:

- Subsidiary
 - Location
 - Work Order
 - Assembly Item
 - Work Order Status
3. To select a form from the table, do one of the following:
 - In the **Select Order Number** field, enter the number for a form.
The **Print** box for the specified form is automatically selected.
 - The **Print** box next to the form you want to print.
 - Click **Mark All** to select all forms.
 4. Click **Print** to print the form.

If you do not want to continue, click **Go to Main** to return to the Supply Chain Management page.

To view the printing status, go to Transaction > Management > Supply Chain Management, and then click the Form Printing Status link. For more information, see [Viewing Report Printing Status](#).

Viewing Report Printing Status

To view the status of a form:

1. Go to Transaction > Management > Supply Chain Management, and then click the Form Printing Status link.

The status of a form can be **Pending**, **In Progress**, **Completed**, or **Error**.

The table displays a list of available forms. You can refine the list by specifying values for the following filters:

- **Report Name**
- **Printing Status**
- **Printed By**
- **Print Date From**
- **Print Date To**



Note: Only administrators can use the **Printed By** filter to view forms printed by specific users.

2. Under **File** Link, click the **View** link for the form you want to view.

Inventory SuiteAnalytics Workbooks

SuiteAnalytics Workbook offers many workbook and dataset templates, each with predefined source data, criteria, pivot tables, and charts.

This section contains the information for the SuiteAnalytics Inventory workbooks in NetSuite. For more information about SuiteAnalytics Workbook, see the help topic [Workbook and Dataset Templates](#).

- [Warehouse Inventory Dataset Templates](#)

Warehouse Inventory Dataset Templates

SuiteAnalytics offers three Warehouse Inventory dataset templates.

- [Warehouse Inventory: Counts & Adjustments Dataset](#)
- [Warehouse Inventory: Inbound Dataset](#)
- [Warehouse Inventory: Outbound Dataset](#)

Warehouse Inventory: Counts & Adjustments Dataset

This dataset combines fields from the Transaction and Transaction Line record types to display open inventory counts and completed counts for approval, including the items for each transaction. It forms the source data for the [Warehouse Inventory: Counts & Adjustments Workbook](#).

Dataset Configuration

The Warehouse Inventory: Counts & Adjustments dataset combines fields from two record types and multiple criteria filters. To edit the dataset, see the help topic [Defining a Dataset](#).

Root Record Type	Joined Record Type	Custom Formula Fields	Data Grid	Criteria Filters
Transaction	Transaction Line	(none)	<p>The following fields are included in the dataset:</p> <p>Transaction:</p> <ul style="list-style-type: none"> ■ Date ■ Document Number/ID ■ Entity ■ Memo ■ Status ■ Total Amount (Transaction Currency) ■ Transaction ■ Type <p>Transaction Line:</p>	<p>The following criteria is used to filter the dataset:</p> <ul style="list-style-type: none"> ■ Transaction: Type is Inventory Count ■ Transaction Line: Line Type contains COUNTQUANTITY

Root Record Type	Joined Record Type	Custom Formula Fields	Data Grid	Criteria Filters
			■ Item	

Warehouse Inventory: Inbound Dataset

This dataset combines fields from the Transaction and Transaction Line record types to display inbound transactions for receiving, including purchase orders, transfer orders, and return authorizations. It forms the source data for the [Warehouse Inventory: Inbound Workbook](#).

Dataset Configuration

The Warehouse Inventory: Inbound dataset combines fields from two record types and multiple criteria filters. To edit the dataset, see the help topic [Defining a Dataset](#).

Root Record Type	Joined Record Type	Custom Formula Fields	Data Grid	Criteria Filters
Transaction	Transaction Line	(none)	<p>The following fields are included in the dataset.</p> <p>Transaction:</p> <ul style="list-style-type: none"> ■ Date ■ Document Number/ID ■ Entity ■ Memo ■ Status ■ Total Amount (Transaction Currency) ■ Transaction ■ Type <p>Transaction Line:</p> <ul style="list-style-type: none"> ■ Actual Ship/Receipt/Pickup Date ■ Item ■ Quantity ■ Quantity Shipped/Received/Picked Up ■ To Be Fulfilled / Received 	<p>The following criteria is used to filter the dataset:</p> <ul style="list-style-type: none"> ■ Type any of Purchase Order, Transfer Order, Return Authorization ■ Transaction Line: Item Type none of Shipping Cost Item ■ Transaction Line: Main Line is false ■ Transaction Line: Tax Line is false

Warehouse Inventory: Outbound Dataset

This dataset combines fields from the Transaction record type and a custom formula to display outbound transactions that include sales orders and item fulfillments. It forms the source data for the [Warehouse Inventory: Outbound Workbook](#).

Dataset Configuration

The Warehouse Inventory: Outbound dataset combines fields from one record type, one custom formula and multiple criteria filters. To edit the dataset, see the help topic [Defining a Dataset](#).

Root Record Type	Joined Record Type	Custom Formula Fields	Data Grid	Criteria Filters
Transaction	(none)	Days Late □ FLOOR({actualshipdate} - {shipdate})	The following fields are included in the dataset. Transaction: □ Actual Shipping Date □ Date □ Document Number/ID □ Entity □ Memo □ Ship Date □ Status □ Total Amount (Transaction Currency) □ Transaction □ Type	The following criteria is used to filter the dataset: □ Type any of Sales Order, Item Fulfillment □ Transaction Line: Item Type none of Shipping Cost Item □ Transaction Line: Main Line is false □ Transaction Line: Tax Line is false

Warehouse Inventory Workbook Templates

Inventory workbooks provide a collection of analytical tools with a dataset based on inventory records and transactions. Each workbook contains predefined pivot tables that show filtered data for a specific set of transactions or records. Use these workbooks to monitor transaction processing and inventory levels in your warehouse.

The following workbooks are available for both Basic and Advanced Inventory Management users:

- [Warehouse Inventory: Counts & Adjustments Workbook](#)
- [Warehouse Inventory: Inbound Workbook](#)
- [Warehouse Inventory: Outbound Workbook](#)

For more information about SuiteAnalytics Workbooks, see the help topic [SuiteAnalytics Workbook Overview](#).

Guidelines on Feature and Transaction Dependencies

Before you access inventory workbooks, review the following feature and transaction dependencies:

- Access to standard inventory workbooks and pivot tables depends on the features enabled in your account. For example, you can access the Counts & Adjustments workbook if you use the Inventory Count feature.
- On pivot tables, you can view the data and value filters when you have existing transactions that meet the predefined criteria. Otherwise, the blank table viewer will display a message informing you that no results are found.

Accessing Inventory SuiteAnalytics Workbooks

To access workbooks, you can go to Analytics. On the Workbooks listing page, expand Standard Workbooks to display the list of inventory workbooks. Click a workbook's name to access and open it. Within each workbook, you can view the data set and pivot tables.



Note: Only users with the Analytics Administrator and SuiteAnalytics Workbook permissions can access and edit standard workbooks. If you have these permissions, you can also share workbooks to other users. For more information about workbook permissions, see the help topic [The Analytics Administrator Permission](#).

For more information, see the help topic [Accessing and Sharing Workbooks and Datasets](#).

Retrieving Updates for Workbooks

To view current data on a pivot table, clear the cached data first before retrieving the updates. At the upper-right corner of the pivot table viewer, you can access the option to clear the cache from the Menu icon :. After you clear the cache, you can retrieve updates by clicking the refresh icon on the workbook toolbar.

For information about navigating workbooks, view the following topics:

- [Pivot Tab](#)
- [Navigating SuiteAnalytics Workbook](#)

Warehouse Inventory: Counts & Adjustments Workbook

This workbook displays open inventory counts and completed counts for approval, including the items for each transaction. These transactions enable you to monitor cycle counts and inventory shortages.

Counts & Adjustments Pivot Tables

The Counts & Adjustments workbook contains the following predefined pivot tables:

Pivot Table	Description	Default Value Filters	Default Fields or Rows
Open Inventory Counts	List of unprocessed inventory counts	Type: Inventory Count Status: Pending	Document Number/ID Date Memo
Inventory Counts to Approve	List of completed inventory counts that have not been approved	Type: Inventory Count Status: Pending Approval	Document Number/ID Date Memo

You can edit these tables according to your business requirements. For more information, see [Customizing Inventory SuiteAnalytics Workbooks](#).

Warehouse Inventory: Inbound Workbook

This workbook displays inbound transactions for receiving, including purchase orders, transfer orders, and return authorizations. For each transaction, it also displays the list of items. These transactions enable you to monitor inbound inventory levels.

Inbound Pivot Tables

The Inbound Workbook contains the following predefined pivot tables:

Pivot Table	Description	Default Value Filters	Default Fields or Rows
Purchase Orders to Receive	List of purchase orders with no item receipt	Type: Purchase Order Status: Pending Receipt	Document Number/ID Status Item Quantity
Transfer Orders to Receive	List of transfer orders with no item receipt	Type: Transfer Order Status: Pending Receipt, Pending Receipt/Partially Fulfilled	Document Number/ID Status Item Quantity Shipped/Received/Picked Up
Customer Returns to Receive	List of return authorizations with no item receipt	Type: Return Authorization Status: Pending Receipt	Entity Document Number/ID Status Item Quantity

You can edit these tables according to your business requirements. For more information, see [Customizing Inventory SuiteAnalytics Workbooks](#).

Warehouse Inventory: Outbound Workbook

This workbook displays outbound transactions that include sales orders and item fulfillments. These transactions enable you to monitor outbound inventory levels.

Outbound Pivot Tables

The Outbound Workbook contains the predefined pivot table, Sales Orders to Fulfill.

Pivot Table	Description	Default Value Filters	Default Fields or Rows
Sales Orders to Fulfill	List of unfulfilled and partially fulfilled sales orders	Type: Sales Order	Document Number/ID Date

Pivot Table	Description	Default Value Filters	Default Fields or Rows
		Status: Pending Fulfillment, Partially Fulfilled, Pending Billing/Partially Fulfilled	Memo

You can edit these tables according to your business requirements. For more information, see [Customizing Inventory SuiteAnalytics Workbooks](#).

Customizing Inventory SuiteAnalytics Workbooks

You can customize inventory workbooks to add fields to pivot tables, create tables and charts, or modify specific elements.

When you customize a standard workbook, you must use Save As to save a copy of your custom inventory workbook. Do not overwrite the default inventory workbooks. Your copy of the workbook is saved under My Workbooks. You can share your custom workbook with other users. For more information, see the help topic [Accessing and Sharing Workbooks and Datasets](#).

■ Add fields to pivot tables

You can customize pivot tables by displaying more fields from transactions. For example, on the Sales Orders to Fulfill pivot table, you can add the Date field to display the creation date of a transaction. By adding more fields, you can view more details for each transaction.

On a pivot tab, drag a field from the Fields list, and then drop it on the appropriate section in the Layout panel. To view the default fields for inventory workbooks, see the following topics:

- [Warehouse Inventory: Counts & Adjustments Workbook](#)
- [Warehouse Inventory: Inbound Workbook](#)
- [Warehouse Inventory: Outbound Workbook](#)

■ Create charts

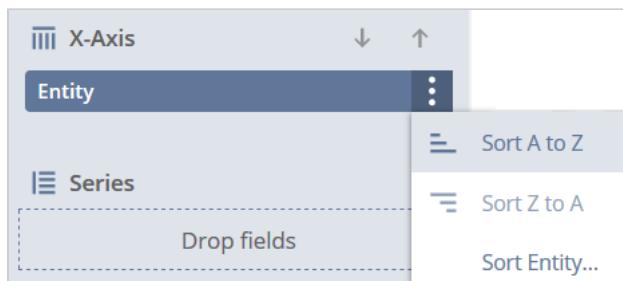
You can add charts based on transactions included in a workbook. For example, you can create an accompanying chart for the Sales Orders to Fulfill pivot table. Select the fields you want to view on the chart and arrange them according to your business requirements.

On a workbook tab, you can create charts by clicking the plus icon, and then clicking Add Chart. In the Layout panel of a new chart, you can specify the chart type, such as column or bar chart. In the X-Axis, Series, and Measures sections, you can drop the fields that you drag from the Fields list. On the Properties panel, you can enter your chart title and labels.

For example, to create a column chart for Sales Orders to Fulfill by Customer, you can select the following fields:

- **X-Axis:** Entity

To sort by entity, click the Entity field to display and click its Field Menu icon. From the menu list, click your sorting preference.

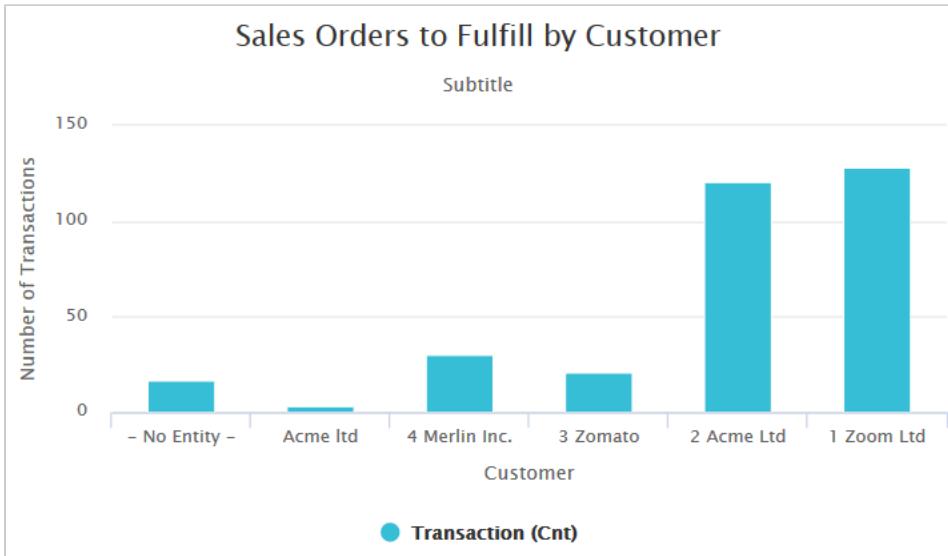


□ **Measures:** Transaction

To sort by transaction, click the Transaction field to display and click its Field Menu icon. From the menu list, click your sorting preference.



See an example of the column chart in the following image:



After editing a workbook, you must refresh it to view the changes. For more information, see [Retrieving Updates for Workbooks](#).

For detailed instructions and other ways of customizing workbooks, see the following topics:

- [Creating a Workbook](#)
- [Pivot Table Customization](#)
- [Workbook Charts](#)
- [Dataset Criteria Filters](#)

Warranty and Repairs Management

Warranty and Repairs Management enables you to register item warranties and process warranty-related claims. Claims that you receive are automatically validated against warranty terms, which helps reduce claims processing turnaround time.

Warranty and Repairs Management provides the following features:

- Multiple ways to register a warranty
 - Registration generated from an invoice (autogenerated registration) – Register a warranty for supported item types after invoice creation.
 - Manual registration – Create a standalone warranty registration.
 - Import of warranty registration details – Import registration details from a CSV file, through scheduled script or web service.
- Warranty tracking on the item record – Set up default warranty information about item records.
- Warranty claims validation and processing
 - Create a claim from a warranty registration.
 - Validate claims against existing warranty registration information to ensure that only valid claims are processed for the refund, repair, or replacement of the warranty item.
 - Create a return authorization for warranty items from the claim record.
 - Create a credit memo or sales order for claims from the return authorization record.

Availability

Warranty and Repairs Management is available as a SuiteApp that is installed in your NetSuite account. The SuiteApp is shared when you have the Advanced Inventory module.

Limitations and Recommendations

Be aware of the following limitations and recommendations for using Warranty and Repairs Management:

- Warranty registration supports only inventory and assembly items. You cannot register a warranty for non-inventory items, services, and other items.
- The SuiteApp does not currently support the Advanced Bill of Materials (BOM) feature. Some functions of the SuiteApp may not work as designed when the feature is enabled.
- The SuiteApp assumes that every sales order has a corresponding invoice. Because of this behavior, there are cases when multiple registrations are created for the same item. If, for example, a sales order has a billing schedule for three separate payments, the system creates three separate invoices for this transaction. There is currently no validation to handle this scenario, so it is possible to create three warranty registrations for the same item.
- Items that do not have warranty information prior to invoice creation are not eligible for warranty registration. If you set up the item warranty information after creating the invoice, you cannot register the warranty. New line items are eligible for warranty registration if the warranty information has been set up on the item record beforehand.
- Each autogenerated registration record can be assigned only one unit of a serialized warranty item. For other inventory item types, the quantity can exceed one unit. For more information, see [Best Practices for Updating Invoices with Warranty Records](#).
- When generating a warranty from an invoice, the quantity must not be blank or equal to zero. If you have back orders for a warranty item on the invoice, you can delay or prevent warranty registration by clearing the **Register Warranty** box on the line item. For more information, see [Generating a Warranty Registration](#).

- When generating a warranty from an invoice or importing registration details, multiple script queues are not supported.
- By default, the following warranty fields are displayed in the item sublist of sales transactions: **Register Warranty, Warranty Terms, and Original Warranty Expiration**. When these transactions are transformed into an invoice, the warranty fields are populated automatically for any warranty items in the sublist. If you want to hide the warranty fields from sales or non-warranty related transactions, you can customize the forms to hide the fields. On a custom transaction form, click the **Columns** subtab of the **Screen Fields** tab, and then clear the boxes for the warranty fields. For more information, see the help topic [Configuring Fields or Screens](#).
- Submitting support case records using the Warranty Claim form can be done only through the NetSuite user interface.
Manually attaching transaction records to claim forms is not a supported user action. Refer to the guidelines and procedures in [Warranty Claims](#) and [Processing Refund, Repair, and Replacement Claims](#).
Additionally, the Custom subtab on case records is reserved for WRM processes and is not to be used to manually attach records.
- Claim processing supports partial returns and repairs for the same item within the same sales transaction, only in terms of quantity. For example, if an invoice has 10 units of an item, a claim can be processed for 5 units. Partial returns for items that are sold as part of a whole or a set are not supported. For example, if a computer is listed in the invoice, a claim cannot be processed only for the monitor.
- Cash refund for claims is not supported. You can only issue a credit memo when processing a refund claim. For more information, see [Creating a Credit Memo for Refund Claims](#).

Setting Up Warranty and Repairs Management

This section includes the requirements and procedures for installing Warranty and Repairs Management. After installing the SuiteApp, you can follow the procedures for setting up roles and permissions required by users to access and use the features.

Prerequisites

Warranty and Repairs Management requires the Advanced Inventory module. For repair claims, in particular, the Assemblies and Work Order module is required.

To enable prerequisites:

1. Go to Setup > Company > Setup Tasks > Enable Features
2. In the **Items & Inventory** subtab, check the following appropriate boxes to enable warranty tracking for the following supported types:
 - Serialized Inventory
 - Lot Tracking
 - Inventory
 - Assembly Items



Note: To let users track warranty for serial and lot numbered items, enable the Advanced Bin/Numbered Inventory feature. To use and display the unit of measure for warranty registration, enable the Multiple Units of Measure feature.

3. To create warranty claims:

- Customer Support and Service



Important: Bundle installation or update errors are encountered when this feature is not enabled.

- Return Authorization

You can register a warranty and create claims even if this feature is disabled. However, you cannot create and process return authorization transactions for the claims.

4. To process claims for refund, repair, and replacement:

- Sales Orders
- Advanced Bin/Numbered Inventory Management

When this feature is disabled, you can only process claims for regular inventory and assembly items. You must enable either the Serialized Inventory or the Lot Tracking feature before you can enable this feature.

- Work Orders
- Drop Shipments & Special Orders

To learn more, see the help topic [Enabling Features](#).

The following preferences are related to the import of registration details:

- Be sure to enable the following CSV Import Preferences: **Run Server Side SuiteScript** and **Trigger Workflows**. For more information and instructions, see the help topic [Setting CSV Import Preferences](#).



Note: When these preferences are disabled, the validations for imported registration details are not carried out, which may result in corrupted data during claim processing.

- If you want to update existing registrations, you must include the Internal Id of the records in your import file. You can display the **Internal Id** column on the Warranty Registration: Results page by enabling the **Show Internal Ids** preference. For more information, see the help topic [General Personal Preferences](#).

If you want to enable automatic warranty registration on invoices created or saved using bulk processing or billing schedules, you must enable the Automatically Register Warranty on Invoice preference. To set the warranty preference:

1. Go to Lists > Warranty and Repairs > Warranty Setup.
2. On the **Warranty Setup** page, click the **Set Warranty Preferences** link.
3. On the **Warranty Preferences** page, click **Edit**.
4. Check the box for **Automatically Register Warranty on Invoice**.
5. Click **Save**.



Important: Warranty and Repairs Management does not currently support the Advanced Bill of Materials (BOM) feature. Some functions of the SuiteApp may not work as designed when the feature is enabled.

Installing Warranty and Repairs Management

To install the Warranty and Repairs Management SuiteApp, go to Customization > SuiteBundler > Search & Install Bundles. Install the SuiteApp with the following details:

- Bundle Name: **Warranty and Repairs Management**

- Bundle ID: 51007

For more information about installing SuiteApps, see the help topic [Installing a Bundle](#).

Warranty and Repairs Management is a managed SuiteApp and is automatically updated whenever there are upgrades. Issue fixes and enhancements are available after the SuiteApp is updated in your account.



Note: Warranty and Repairs Management supports the **Multi-Language** feature. If the feature is enabled in your account, you can choose from the list of system-supported languages to use in your NetSuite user interface. For more information, refer to [Configuring Multiple Languages](#) and [Choosing a Language for Your NetSuite User Interface](#).

Roles and Permissions in Warranty and Repairs Management

To set the permissions and enable access to custom warranty records:

1. After installing Warranty and Repairs Management:
 - You cannot provide access to roles from the Customer and Vendor Center where Warranty and Repairs Management is not available.
 - To import registration details, use a role with the Import CSV File permission.
2. Go to Setup > Users/Roles > Manage Roles.
3. Click the **Edit** or **Customize** link for the role you want to set up.
4. On the **Role** page, **Forms** subtab, click the **Custom Record** subtab.
5. Enable the following forms:

Form Type	Form Name	Enabled
WRM Preference	Standard WRM Preference Form	Yes
Warranty Registration	Warranty Registration Form	Yes
WRM Warranty Claim	Standard WRM Warranty Claim Form	Yes

6. On the **Permissions** subtab, set the minimum required access level for the following custom records, transactions, and lists:

- a. To associate warranty information with an item record:

Permission	Subtab	Permission Level
Custom Lists	Setup	View
Warranty Terms	Custom Record	View

- b. To register a warranty from an invoice:

Permission	Subtab	Permission Level
Custom Lists	Setup	View
Warranty Terms	Custom Record	View
Warranty Registration	Custom Record	Full
WRM Preference	Custom Record	View
WRM Registration Queue	Custom Record	Full

- c. To manually register a warranty:

Permission	Subtab	Permission Level
WRM Preference	Custom Record	Full
Warranty Terms	Custom Record	View

d. To process a warranty claim:

Permission	Subtab	Permission Level
Invoice	Transactions	View
Cases	Lists	Full
Items	Lists	View
Custom Lists	Setup	View
Warranty Failure Reason	Custom Record	View
Warranty Registration	Custom Record	View
WRM Warranty Claim	Custom Record	Full

e. To process refunds, replacements, and repairs:

Permission	Subtab	Permission Level
Credit Memo	Transactions	Full
Sales Order	Transactions	Full
Work Order	Transactions	Full
Custom Lists	Setup	View
Warranty Registration	Custom Record	View
WRM Warranty Claim	Custom Record	View
Return Authorization	Transactions	Full

f. To delete a warranty registration:

Permission	Subtab	Permission Level
Warranty Registration	Custom Record	Full

NetSuite Center views can vary depending on your role. You can view specific pages using the following path:

- Warehouse – Inventory > Warranty and Repairs
- Administrator – Lists > Warranty and Repairs
- Executive or Accounting – Financials > Warranty and Repairs
- Sales – Customers > Warranty and Repairs
- Support – Cases > Warranty and Repairs

Adding Warranty and Repairs Management Fields to Custom Forms

You can use your own custom forms to register warranties and process claims. You have to add or enable the custom warranty fields on your existing forms. The following instructions describe how you can manually set up these fields on your custom form.

To add the fields to custom forms:

1. Go to Customization > Lists, Records, and Fields and then click the field type from the menu. The following table shows the list of custom fields that are created for the forms used in warranty transactions.

Form	Field Type	Field Label
Invoice	Transaction Column Fields	Register Warranty View Registration Warranty Terms Original Warranty Expiration
Case (Warranty Claim)	CRM Fields	Warranty Type Warranty Registration No.
Inventory Item or Assembly Item	Item Fields	Track Warranty Warranty Terms Warranty Expiration Repaired Item (for Assembly Item only)
Return Authorization	Transaction Body Fields	Claim Number Replacement SO No.
	Transaction Column Fields	Claim Item
Item Receipt or Credit Memo	Transaction Body Fields	Claim Number
	Transaction Column Fields	Claim Item
Sales Order	Transaction Body Fields	Claim Number Return Authorization
	Transaction Column Fields	Claim Item
Item Fulfillment or Work Order	Transaction Body Fields	Claim Number
Warranty Registration	Other Custom Fields	Reference Invoice No.
Warranty Registration	Other Custom Fields	Reference Serial/Lot No.

2. In the list of fields for your selected field type, click the link for the field label or description.



Important: On your custom form, you can add the standard **Quantity** and **Units** fields that are used on the Warranty Registration form. If you have the **Multiple Units of Measure** feature enabled in your account, however, the **Units** field is not optional on custom forms. The SuiteApp uses the Units column to determine the quantity in the Warranty Registration record so you must add the field.

3. On the specific Field page, click **Apply to Forms**.
4. On the Apply Custom Field to Forms page, in the **Show** column, check the box for the forms where you want to enable the field.
5. Click **Save**.

View your custom forms to verify that warranty fields are displayed and enabled.

Setting Warranty Preferences and Items



Note: The navigation paths used in the procedures are based on the Administrator role. If you are not an administrator, you may see a different view of the NetSuite Center. For more information, see [Roles and Permissions in Warranty and Repairs Management](#).

In this section, you can find the following procedures for setting up your preferences and warranty information to be used on registration and claim processing forms:

- [Setting Warranty Preferences](#)
- [Defining Warranty Terms](#)
- [Defining Failure Reasons](#)
- [Setting Up Warranty Information on the Item Record](#)
- [Creating Repaired Items](#)

Setting Warranty Preferences

To set warranty preferences:

1. Go to Lists > Warranty and Repairs > Warranty Setup.
2. On the **Warranty Setup** page, click the **Set Warranty Preferences** link.
3. On the **Warranty Preferences** page, click **Edit**.
4. In the **Calculate Warranty Start Date From** field, select the default date to be used as the basis for calculating the warranty start date.

The calculation of the warranty start date applies to warranty registrations that are generated from an invoice. For manual or imported registration details, you can enter the start date on the registration record or file.

Sales Order Date – transaction or posting date of the sales order. This option is the default selection in the field.

Invoice Date – transaction or posting date of the invoice.

On the warranty registration record, the calculated date is displayed in the **Original Warranty Start Date** field. In case there is no sales order yet when the registration is generated, the invoice date is used to calculate the start date, even if the sales order date is selected as the preference.

5. Check the box for the following preferences that you want to enable:
 - **Auto Generate Registration No.** – Preference to automatically generate a registration number for new warranty registration records.



Note: During manual registration using the Warranty Registration form, you cannot edit and update the autogenerated number, if this preference is enabled.

- **Automatically Register Warranty on Invoice** – Preference to automatically check the **Register Warranty** box on the invoice, for items where warranty tracking is enabled. Regardless of how the invoice is created or generated, the preference is automatically enabled for the warranty item. It applies to invoices generated from a sales order and estimate. For more information about the **Register Warranty** option, see [Generating a Warranty Registration](#).



Important: This preference is required if you want to automatically register warranty on invoices created or saved through bulk processing or billing schedules.

- **Close RMA Upon SO Creation** – preference to automatically close a return authorization after creating a sales order. This preference is not applicable to refund claims.
- **Ship Replacement in Advance** – preference to enable creation of a sales order from a return authorization prior to creation of an item receipt. This preference applies only to replacement claims, to let you ship warranty items in advance, before receiving them.



Note: The **Close RMA Upon SO Creation** and **Ship Replacement in Advance** preferences must not be enabled at the same time. When an RMA is closed after creating the sales order, you cannot create an item receipt for the items that have been replaced in advance.

6. Click **Save**.

Click **Reset** if you want to return the fields to their default settings.

Defining Warranty Terms

Define the period and coverage of the terms that can be applied to your warranty items. For example, you want to set up a 3-year service warranty that covers only labor costs to repair an item. You can indicate the coverage in the term name and set the calculated term to 3 years.

To define a warranty term:

1. Go to Lists > Warranty and Repairs > Warranty Setup.
2. On the **Warranty Setup** page, click the **Define Warranty Terms** link.
3. On the **Warranty Terms** page, enter or select the values for the following fields:
 1. In the **Name** field, enter a name for the warranty term. For example, **3 Year Labor** for a three-year warranty term on labor costs only.
 2. Select the type of term in the **Term Type** field.
 - **Calculated** – term that automatically calculates the warranty expiration date based on your defined terms.
Selecting this type enables the **Warranty Terms** fields. In these fields, select the period (in Days, Months, or Years) and then enter the value.
 - **Fixed** – term where you set the warranty expiration date during registration. On the item record, you can set a default expiration date for a Fixed term. For more information, see [Setting Up Warranty Information on the Item Record](#).
 - **Lifetime** – term that does not have a warranty expiration.
4. Be sure to clear the **Inactive** box to keep the term record active.
5. Click **Save**.

When editing a warranty term, you can update only the **Name** field and **Inactive** box. You can inactivate warranty terms that currently are not used. You can edit inactive records, but the terms are not included for selection in the following fields:

- **Original Warranty Terms** – on the warranty registration
- **Warranty Terms** – on an item record or line item of an invoice

In edit mode, you can delete a term that has not been used in a registration or other dependent records.

Defining Failure Reasons

Define failure reasons that are used to specify defects in the warranty item. When creating a claim, you can select the name of the failure reason from a list.

To define a failure reason:

1. Go to Lists > Warranty and Repairs > Warranty Setup.
2. On the **Warranty Setup** page, click the **Setup Failure Reason** link.
3. In the **Name** field, enter a name for the failure reason.
4. In the **Description** field, enter a short description for the failure reason.



Note: Be sure to clear the **Inactive** box to keep the failure reason record active.

5. Click **Save**.

When editing a failure reason, you can update the fields, including the **Inactive** box. You can inactivate failure reasons that currently are not used. You can edit inactive records, but the failure reasons are not included for selection in a warranty claim. You can also delete a failure reason if it has not been used in a warranty claim or other dependent records.

Creating Repaired Items

For assembly items, you must create a corresponding repaired item to be used for claim processing. You must also set the assembly item as a component on the repaired item record.

To create repaired items:

1. Go to Lists > Accounting > Items > New.
2. On the **New Item** list, click the appropriate item type:
 - Assembly/Bill of Materials
 - Lot
 - Numbered
 - Serialized
3. On the item record, in the **Custom Form** field, select **Warranty Assembly Item Form** from the list.
4. On the **Purchasing/Inventory** subtab:
 - a. Check the **Special Work Order Item** box.
 - b. On the **Components** subtab, add the assembly item to be associated with this repaired item.
5. Click **Save**.

The repaired items you create are added to the list in the **Repaired Item** field on the assembly item record. For more information, see the following topics:

- [Setting Up Warranty Information on the Item Record](#)
- [Creating a Sales Order for Repair Claims](#)

Setting Up Warranty Information on the Item Record

After setting up Warranty and Repairs Management, the **Warranty Information** subtab is added to item records of supported item types. On this subtab, you can enable the **Track Warranty** preference and set

the default warranty information. For assembly items, in particular, you can map one or more repaired items.

Before you can add warranty information to items, be sure to enable required features listed in the [Prerequisites](#) topic.

To set up warranty information:

1. Go to Lists > Accounting > Items.
 2. On the **Items** page, click the **Edit** link for the item record.
 3. For assembly items, select the **Warranty Assembly Item Form** in the **Custom Form** field. You can skip this step for other items.
 4. On the item record, click the **Warranty Information** subtab and then check the **Track Warranty** box.
 5. In the **Warranty Terms** field, select a term from the list, or select **New** to create a new term.
 6. Set up the following fields for specific items:
 - For Fixed terms – In the **Warranty Expiration** field, enter the expiration date, or click the Calendar icon to pick the date.
 - For assembly items – in the **Repaired Item** field, select a repaired item from the list. To add more repaired items to the list, see [Creating Repaired Items](#).
- Note:** Repaired items are used during processing of repair claims. For more information, see [Creating a Sales Order for Repair Claims](#).
7. Click **Save**.

During warranty registration, you can change the default settings or information from the item record. For more information, see [Warranty Registration](#).

Warranty Registration

Each supported item can be registered if warranty tracking has been enabled on the item record. You can create one warranty registration record for each unit of a serialized item. For regular inventory or assembly items and lot numbered items, the quantity may exceed one unit per warranty registration record.

You can create a warranty registration by generating from an invoice, manual entry on the form, or through import of details. Warranty registration is also supported through SuiteScript and web service.

See the following topics in this section for instructions and guidelines on each registration mode:

- [Generating a Warranty Registration](#)
- [Creating a Manual Warranty Registration](#)
- [Importing Warranty Registration Details](#)

Warranty registration is also supported for invoice records processed through SuiteScript and web service.

Additionally, the SuiteApp supports automatic warranty registration on invoices created or saved through bulk processing of sales orders, or using billing schedules. The **Automatically Register Warranty on Invoice** preference must be enabled if you want to register warranty for tracked items on invoices created using these processes. See [Prerequisites](#).

After registering a warranty, you can view the list of existing registration records by going to Lists > Warranty and Repairs > Warranty Registration List. You can view the record or edit select registration

details. For information about updating an existing registration, see [Editing a Warranty Registration](#). To create a claim from a warranty registration, see [Warranty Claims](#).

Generating a Warranty Registration

You can generate a warranty registration during invoice creation or by updating an existing invoice. Each item on the invoice can be registered for a warranty when the following conditions have been met:

- Warranty tracking is enabled on the item record. For information, see [Setting Up Warranty Information on the Item Record](#).
- The item belongs to any of the supported types and there is available quantity on hand. For more information, see [Limitations and Recommendations](#).

See the following topics for information about maintaining invoices and autogenerated registration records:

- [Best Practices for Updating Invoices with Warranty Records](#)
- [Editing a Warranty Registration](#)

To generate a warranty registration:

1. To access a new or existing invoice record, do either of the following:

- For a new invoice, go to Transactions > Sales > Create Invoices.

For instructions on entering general invoice details, see the help topic [Creating an Invoice](#).



Important: If the following features are enabled, be sure that their corresponding fields are properly defined: Class, Department, and Location. You cannot edit these fields on the autogenerated registration record.

- For an existing invoice, go to Transactions > Sales > Create Invoices > List, and then click the Edit link for the invoice to be updated.
2. On the **Items** subtab of the invoice record, select the warranty item from the list in the **Item** column.
3. For each warranty item, enter the values in the following line item columns:
 - In the **Quantity** column, enter the total number of items for this invoice.
 - In the **Units** column, select the sales unit for the quantity if your account has the Multiple Units of Measure feature enabled.

For serial and lot numbered items, the base item unit is used on the registration record. To register items with varying serial or lot numbers, select the base unit and then set the quantity for each number on the Inventory Detail. Alternately, you can add a separate line item for each serial or lot number. To learn more, see [Best Practices for Updating Invoices with Warranty Records](#).

 - Click the Inventory Details icon to register serial or lot numbered items. On the Inventory Details popup window, select the serial or lot numbers and then set the quantity for each number. For more information, see [Basic Inventory Management](#).
 - In the **Ship To** column, you can review and edit the shipping address. This column is displayed only if you use the Multiple Shipping Routes feature and have checked the **Enable Item Line Shipping** box. If you do not want to enter a shipping address per line item, you can edit the address on the **Shipping** subtab. For more information about the feature, see the help topic [Multiple Shipping Routes](#).
 - In the **Register Warranty** column, check the box for the warranty item.

If you enabled the preference to automatically register a warranty, the box is checked even when the invoice is generated from another transaction. Before generating the registration, you can update the **Register Warranty** setting.

The preference to automatically register a warranty is not supported for invoices generated from an opportunity. In this case, you can edit the generated invoice to manually check the **Register Warranty** box. For more information about the preference, see [Setting Warranty Preferences](#).



Note: When creating an invoice, you can choose to show or hide the **Warranty Registration List** subtab on the record using this column. If you leave this box clear for any and all line items you add to the invoice, the Warranty Registration List subtab is not shown when the invoice is saved. If at least one item on the invoice has the Register Warranty column checked, the Warranty Registration List subtab is shown on the invoice record when it is saved.

- To replace the default term, select a term from the list in the **Warranty Terms** column field. For the Administrator role only, if you want to create a new term, select **New** from the list.



Note: Changing a Fixed or Calculated term removes the date from the **Original Warranty Expiration** column field. You can reset the date by switching it back to the default term on the item record.

- To replace the default warranty expiration for Fixed terms, in the **Original Warranty Expiration** column field, enter the new date or click the Calendar icon to pick a date.
4. Click **Add** to save the new or updated line items.
 5. On the **Shipping** subtab, you can review or edit the shipping address depending on your account setup:
 - If you use the Multiple Shipping Routes feature and have checked the **Enable Item Line Shipping** box, you can only review the address for each line item on this subtab. You can edit the address per line item on the **Items** subtab. If you did not enable item line shipping, you can edit the address in the **Ship To** field on this subtab. For more information about the feature, see the help topic [Multiple Shipping Routes](#).
 - On the autogenerated registration, the **Ship To Address** field is populated with the address from the **Ship To** field on this subtab or from the line item of the **Items** subtab.
 6. Click **Save** to save the invoice record.

Saving the invoice record automatically starts the generation of warranty records. Generation is handled by a scheduled script, so you may not see the records immediately. On the invoice, click the **Warranty Registration List** subtab to view the list of successfully generated registration records. Only active registration records are displayed in the list. To open a record, click the corresponding View link in the **View Registration** column. If you have to manually enter registration numbers, you can edit the record to enter your own registration number.

Best Practices for Updating Invoices with Warranty Records

This section contains best practices when updating invoice records linked to generated warranty registrations.

- Before generating a warranty from the invoice, verify that all line item details are correct. Line items linked to registration records cannot be removed from the invoice. You cannot replace or change the warranty item for these line items. This condition is true unless all associated registration records are deleted. When all registration records associated with a line item are deleted, the **Register Warranty** box is automatically cleared.

- Warranty information in line items cannot be updated. For serial and lot numbered warranty items, you can remove or change the serial or lot number on the inventory details record. If you do so, you must also manually update them on their corresponding registration records. However, these fields cannot be updated when the registration is already associated with a claim. For the complete list of editable fields, refer to the table in the topic, [Editing a Warranty Registration](#).
- Review the setup of the unit of measure on the item record. For serial and lot numbered items, the base unit is used as the unit of measure on the autogenerated registration record. The quantity for serialized items is always set to **1**. For more information, see the help topic [Serial and Lot Inventory with Multiple Units of Measure](#).

For example, you have a serial and lot numbered item with the base unit Piece, and another unit Box with a conversion rate of 5. In the invoice line item, you selected **Box** as the unit of measure and **1** for the quantity. For the inventory detail, you selected a serial number and set the quantity to **1** to match the line item quantity.

- If the item is serialized, five registration records are generated, each with **Piece** as the unit and **1** as the quantity.
- If the item is lot numbered, one registration record is generated, with **Piece** as the unit and **5** as the quantity.
- To register items with different serial or lot numbers in a single line item, select the base unit and total quantity. For the inventory detail, you can select the numbers and set their quantity.
- After generating a registration from an invoice, changes to the following fields on the invoice are not automatically reflected in their corresponding fields on the associated warranty registration records: **Quantity**, **Units or Unit of Measure**, and **Ship To** address.

You have to manually update the fields on the registration record. For serialized items, the quantity and unit of measure cannot be edited on the autogenerated registration record.

- Avoid updating the **Quantity** field in existing line items with warranties. For serialized and lot numbered items on the invoice:
 - If you want to increase the quantity, add a new line item where you can enter the additional quantity and the new serial or lot numbers. New registration records are generated when you check the **Register Warranty** box for this line item.
 - If you want to reduce the quantity, delete the serial or lot number from the inventory details record. In the line item, you can enter the new quantity that corresponds to the reduced total quantity in the inventory details. After updating the invoice, you can void the registration record by checking its **Inactive** box.

Creating a Manual Warranty Registration

Create a stand-alone warranty registration, manually, without generating from a NetSuite invoice. You can provide your own registration number, invoice number, and serial or lot number for these warranty item types. Before creating a manual registration, you can review the limitations and requirements in the following topics:

- [Prerequisites](#)
- [Setting Warranty Preferences and Items](#)
- [Limitations and Recommendations](#)

Review the following guidelines for creating a manual registration:

- You cannot create registration records with the same item and reference serial number combination.

For example, you have a warranty registration for Serial Item 1 with Serial Number 100-WRM-001.

Regardless if the initial registration is manual or autogenerated, you cannot create a manual registration for the same Serial Item 1 with Reference Serial Number 100-WRM-001.

- Creating a registration with the same reference invoice is allowed, regardless if the customer is the same or not.
- When you select a warranty item, the default warranty information from the item record is automatically displayed in their corresponding fields. For more information, see [Setting Up Warranty Information on the Item Record](#).
- For the list of required and editable fields, see [Editing a Warranty Registration](#).

To create a manual warranty registration:

1. Go to Lists > Warranty and Repairs > Enter Warranty Registration.

Alternately, if you are on the Warranty Registration List, click **New Warranty Registration**. If you already have a registration record open in view mode, go to Actions > New.

2. On the **Warranty Registration** form, enter the values in the **Primary Information** section.

Field	Description
Registration No.	Enter the warranty registration number. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Note: If you enabled the Auto Generate Registration No. preference, you cannot update the registration number during record creation. To learn more, see Setting Warranty Preferences. </div>
Customer	Select the name of the customer or owner of the warranty item.
Subsidiary	This field displays the subsidiary of your selected customer.
Class Department Location	If your account has the Class, Department, or Location features enabled, select the values in their corresponding fields. For these fields, you must select a value that is associated or belongs to the subsidiary.
Inactive	Be sure to clear the Inactive box to keep the record active. To void a warranty and prevent filing of claims from the registration, check the Inactive box.

3. Enter the values in the **Warranty Information** section.

Field	Description
Manual Registration	This field is automatically checked to distinguish the record from registrations that are generated from an invoice.
Reference Invoice	Enter the invoice number for the warranty.
Item	Click the double arrows and then select List from the popup menu. Select the warranty item from the popup list. This field displays only items with Track Warranty enabled on the item record. For accounts with subsidiaries, you must select an item that belongs to the subsidiary.
Quantity	Enter or update the default item quantity. Negative numbers and zero are not allowed. For serialized warranty items, the quantity is disabled and is always set to the default value of 1 .
Units	If you enabled the Multiple Units of Measure feature, select the unit for the quantity. For serialized warranty items, the unit is disabled and is always set to the base unit on the item record.
Reference Serial/Lot No.	For serial or lot numbered items, enter the serial or lot number of the warranty item. Only hyphens and alphanumeric characters are allowed.

Field	Description
Invoice Date	Enter the transaction or posting date of the invoice.
Original Warranty Terms	This field displays the default term on the item record. Selecting another term may automatically change or remove the default values in the following fields: <ul style="list-style-type: none"> ■ Original Warranty Start Date ■ Warranty Expiration
Original Warranty Start Date	This field displays the calculated start date based on your preference. For more information, see Setting Warranty Preferences . Changing this default start date may automatically change or remove the default value in the Warranty Expiration field. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Note: You must enter a start date that is not later than the expiration date. </div>
Warranty Expiration	This field displays the default expiration date on the item record. For Fixed and Calculated terms, enter the warranty expiration date or click the Calendar icon to pick a date. This field is disabled for Lifetime terms. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Note: The expiration date must not be set to a date later than the current date. </div>
Warranty Document	Click the double arrows and then select List from the popup menu. Select the warranty document from the popup list. To upload a document, click the plus icon to create a new record where you can upload it.
Remarks	Enter additional warranty information.
Ship To Address	Enter your current delivery address to be used for shipping repaired and replacement items. You can only enter information in this field during the creation of a warranty registration. This field is disabled in edit mode.
New Address	This field is disabled for new registrations. You can enter an address in this field only when editing existing registration records. For more information, refer to the table in the topic,

4. Click **Save**.

After saving a registration record, the status is set to **Under Warranty**. The status is automatically changed to **Out of Warranty** when the warranty is past the expiration date.

Importing Warranty Registration Details

You can register a warranty by importing the registration details from a CSV file, or through scheduled script or web service. Records created through an import are treated as manual or standalone registrations, therefore, they are not linked to a NetSuite invoice. Existing records, regardless of the mode of registration, can be updated by importing details for select fields. To review the list of required and editable fields, refer to the table in the topic, [Editing a Warranty Registration](#).

To prepare for your import of registration details, review the following guidelines:

- Permissions required to import registration details can be found in the [Roles and Permissions in Warranty and Repairs Management](#) topic. For required features to import registration details, see [Prerequisites](#).

- Be sure to setup the warranty information about the item record. You have to enable warranty tracking for the items included in your CSV file. For Fixed term items, the default expiration date on the item record is used for the registration, if no date is included or is left blank in your CSV file. For more information about enabling warranty tracking, see [Setting Up Warranty Information on the Item Record](#).
- Limitations on warranty registration are listed in the [Limitations and Recommendations](#) topic.

The following instructions contain procedures specific to importing details on the Warranty Registration form, using the Import Assistant. For detailed instructions on importing CSV files, see the help topic [Importing CSV Files with the Import Assistant](#).

To import warranty registration details:

1. Go to Setup > Import/Export > Import CSV Records.
2. On the Import Assistant page, complete the following tasks for Step 1 Scan & Upload CSV File:
 1. In the **Import Type** field, select **Custom Records**.
 2. In the **Record Type** field, select **Warranty Registration**.
 3. In the CSV File(s) section, select the mode and file to upload. For instructions, see the help topic [Select a File for Import](#).
 4. Click **Next**.
3. Complete the following tasks for Step 2 Import Options:
 1. In the Data Handling section, choose from among the options: **Add**, **Update**, or **Add or Update**. For more information, see the help topic [Choose Data Handling for Import](#).

 **Note:** The **Add or Update** option is not applicable to scheduled scripts.
 2. In the Advanced Options section:
 - a. Verify that either of the two forms are selected in the **Custom Form** field:
 - Warranty Registration Form
 - Standard Warranty Registration Form
 - b. Check the **Run Server SuiteScript and Trigger Workflows** box.
 3. Click **Next**.
4. To import multiple files, complete the tasks for Step 3. To view the instructions, see the help topic [Step Three File Mapping](#). Otherwise, proceed to Step 4 Field Mapping:
 1. Verify that the fields on your CSV file are correctly mapped to the fields on the Warranty Registration form. For more information, see the help topic [Step Four Field Mapping](#).
 2. Click **Next**.
5. Click **Save & Run** to save the import settings and start the import job.

After running an import, the job is placed in a queue for processing. On the Finished page, click **Import Job Status** to view the status of the import job. For more information, see the help topic [Checking CSV Import Status](#).

For import files with errors, only records with valid data are added or updated on the Warranty Registration form. In the file, look for the error message at the end of each row with invalid data.

Best Practices for Importing Registration Details

This section contains best practices when importing registration details, to create new or update existing warranty registrations.

- The fields or columns in your import file should correspond to those on the Warranty Registration form. Validations during manual registration are also applied during the import. For a description of the registration fields, see [Creating a Manual Warranty Registration](#).
- To update an existing warranty registration, get the internal Id of the registration record to be edited. For more information about locating an internal Id, see the help topic [How to Find a Record's Internal ID](#)
- When updating, you can export the list of existing registration records from your account. The Export-Csv icon is located in the list control bar of the Warranty Registration: Results page. Before exporting a record, verify that the Internal Id column is displayed on the page. For more information, see [Prerequisites](#).
- Any information that you import replaces default values and settings. For example, if you have the preference enabled to autogenerate registration numbers, when you import your own registration numbers, you automatically overwrite the autogenerated numbers. To review your warranty preference settings, go to Lists > Warranty and Repairs > Warranty Setup. For more information, see [Setting Warranty Preferences](#).
- You can set editable registration fields to blank using a scheduled script. However, the validations for editing registration records are still applied. Specific registration fields cannot be edited when a warranty registration is already associated with a claim. To view the list of editable fields, see [Editing a Warranty Registration](#).



Note: This option to set editable registration fields to blank is not available through CSV import. Existing details on the registration record are retained if their corresponding fields or columns in the CSV file are left blank.

- For more information about importing files, limitations, and tips, see the following topics:
 - [General CSV File Conventions](#)
 - [Setting CSV Import Preferences](#)
 - [Tips for Successful CSV Imports](#)
 - [Custom Records Import](#)

Editing a Warranty Registration

To access a warranty registration, go to Lists > Warranty and Repairs > Warranty Registration List. From the warranty registration list, click the Edit link for the record you want to update. On the Warranty Registration page, you can change or update the editable fields.



Note: You can also use Global Search to search for a registration record. Use the registration number, serial or lot number as search criteria. If you have the preference to display the list of suggested matches, you can click the Edit link beside the registration number to open the record in edit mode. For more information about global searches, see the help topic [Global Search](#).

The registration fields that you can update depend on the mode of registration and whether the registration has an existing claim. For autogenerated registrations, changing the warranty expiration date on the registration record does not automatically change the expiration date in the invoice line item. For more information about the warranty registration fields, see [Creating a Manual Warranty Registration](#).

The following table shows the list of registration fields that are required for creating or importing a manual registration. It also indicates if the field can be edited for a manual and autogenerated registration. For each registration mode, editable fields are further limited when a registration already has an existing claim.

Field Name	Required for Manual Registration?	Editable for Manual Registration?		Editable for Autogenerated Registration?
		Without Claim	With Claim	
Registration No.	Yes	Yes	Yes	Yes
Customer	Yes	Yes	No	No
Subsidiary	Yes	Yes	No	No
Location	No	Yes	Yes	No
Reference Invoice No.	No	Yes	No	Not used
Item	Yes	Yes	No	No
Quantity	Yes	Yes	Yes, except for serialized items	Yes, except for serialized items
Units	No	Yes	Yes, except for serialized items	Yes, except for serialized items
Reference Serial/Lot No.	Yes, for serialized items	Yes, for serial or lot numbered items	No	Not used
Serial/Lot No.	No/Disabled	No/Disabled	No/Disabled	No
Invoice No.	Not used	Not used	Not used	No
Invoice Date	No	Yes	No	No
Original Warranty Terms	Yes	Yes	No	No
Original Warranty Start Date	Yes	Yes	No	No
Warranty Expiration	Yes, except for Lifetime terms	Yes, except for Lifetime terms	Yes, except for Lifetime terms	Yes, except for Lifetime terms
Remarks	No	Yes	Yes	Yes
Class	No	Yes	Yes	No
Department	No	Yes	Yes	No
Ship To Address	No	No/Disabled	No/Disabled	No/Disabled
New Address	No/Disabled	Yes	Yes	Yes

In edit mode, you can also do the following:

■ **Void a Warranty Registration**

You can void a registration record by checking the **Inactive** box. You can edit an inactive record, but you cannot use it to file a warranty claim. If the registration is generated from an invoice, the record is removed from the **Warranty Registration List** subtab of the invoice. In the corresponding line item of the invoice, the warranty settings are not changed.

■ **Delete a Warranty Registration**

You can delete a registration record if it has no associated warranty claims. This condition is the same for serial items with multiple registrations but associated with one line item on an invoice. You can delete only the registration records with no claim.

To delete a record, when in edit mode, go to Actions > Delete. To view the role requirements for deleting a registration record, see [Roles and Permissions in Warranty and Repairs Management](#).



Note: Clicking the Remove link on the **Related Records** subtab only removes a record from the list of claims displayed on the registration. The claim remains associated with the registration, so the registration cannot be deleted. However, when you remove a claim, it cannot be displayed on the registration again.

If a registration is generated from an invoice, you cannot delete the record when the invoice is being edited by another user. After you are able to delete the record, the **Register Warranty** box is automatically cleared in the corresponding line item of the invoice. However, the box is not yet cleared if there are other existing registration records linked to the line item.

■ Copy a Warranty Registration

You can copy warranty details into a new registration record. In view mode, on the Warranty Registration page, go to Actions > Make Copy. A manual registration form is displayed, regardless of the mode of registration.

- For autogenerated registrations, the invoice is copied into the **Reference Invoice** field. If applicable, the serial or lot number is copied into the **Reference Serial/Lot No.** field.
- If you enabled the Auto Generate Registration No. preference, the **Registration No.** field is disabled and cannot be edited when you are creating the record. For more information about this preference, see [Setting Warranty Preferences](#).
- The **Manual Registration** box is automatically checked on the copy of the registration record.

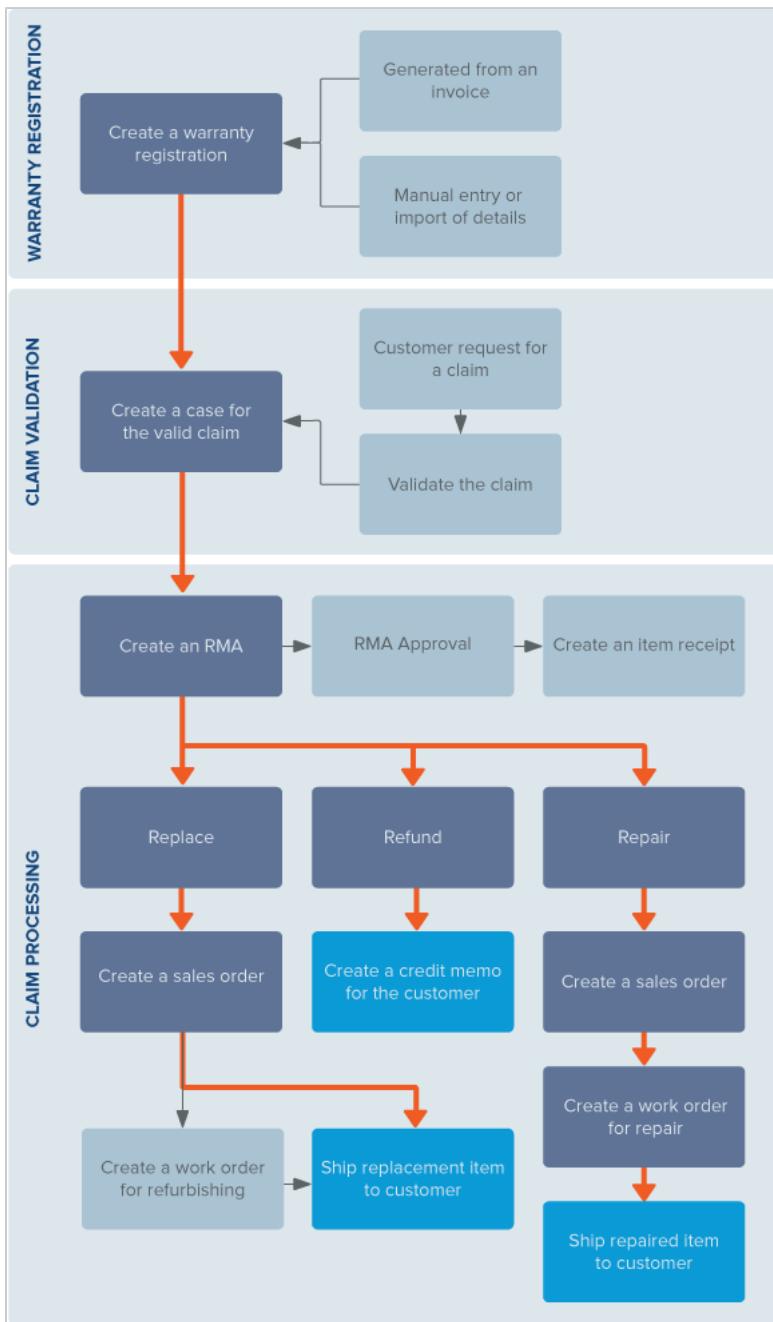
Warranty Claims

You can create a claim for an active warranty registration, if the warranty has not yet expired. On a Warranty Claim record, you cannot select inactive registration records. Only valid claims can be entered and processed.

When creating a warranty claim, you have to determine the action:

- **Refund** – Claim for an item that cannot be replaced or repaired, so the customer is issued a credit memo.
- **Replacement** – Claim for an item that can be returned and replaced with another one.
- **Repair** – Claim for an assembly item that can be returned for repair.

The following diagram shows the processing flow specific to each claim action:



Claim processing is initiated when you create a return authorization, which is needed when customers return the warranty item. When you receive warranty items, you can create an item receipt to track the quantity of returned items. Based on the claim action, you can proceed to creating the appropriate transaction: sales order, work order, or credit memo. When all transactions have been processed, you can ship the repaired or replacement item, or issue a credit memo for the claim refund. The flow of claim processing can be altered depending on your warranty preferences. For more information, see [Setting Warranty Preferences](#).

Before entering or processing a claim, you can review the requirements and guidelines in the following topics:

- [Limitations and Recommendations](#)
- [Prerequisites](#)

- Roles and Permissions in Warranty and Repairs Management

Creating a Warranty Claim

You can create a claim directly from a registration record or manually create a new claim record. Regardless of how it is created, registration details are validated and carried over to the warranty claim.

 **Important:** When creating a manual claim, you must not use the New option from the Actions submenu. This option does not display the warranty information fields, even if you use the Warranty Claim Form.

To create a warranty claim:

1. Go to Lists > Warranty and Repairs > Enter Warranty Claim.

If you are creating directly from a registration, on the Warranty Registration form, click **Create Claim**. On the Warranty Claim page, specific fields in the Primary and Warranty Information sections are populated with details from the registration record.

 **Note:** Before entering the claim details, verify that the warranty has not expired. The status should not be set to **Out of Warranty** and the expiration must be later than the current date.

2. On the Warranty Claim page, enter or select the values in the following Primary Information section fields.

Field	Description
Custom Form	Select your claim form or the basic Warranty and Repairs Management form: Warranty Claim Form .
	 Important: Only cases or claims created through Warranty and Repairs Management are considered as valid warranty claim cases. Cases or claims filed outside the SuiteApp are treated as regular support cases, and are not eligible for warranty processing. For example, a case created using the Case Management feature is not going to be eligible for warranty processing, even if it has been created using the Warranty Claim Form.
Claim Date	The claim date defaults to the current date. You can enter another date or pick a date from the calendar.
Claim Time	The claim time defaults to the current time. You can change the default time.
Complaint	Enter the subject for the claim.
Customer	For claims created directly from a registration, select a customer or select New to create a new customer record.
Profile	This field is populated based on the selected customer. You can select another profile to be used when sending notification for the claim.
Subsidiary	This field is populated based on the selected customer.
Claim Status	Select the appropriate status for the claim.

3. In the Warranty Information section, enter or select the values for the following fields:

1. In the **Registration No.** field, enter the registration number of the warranty to be associated with the claim. For claims created directly from a registration record, the registration number is populated automatically, but you can change it.



Note: Be sure to enter a warranty registration that is associated with your selected customer. When you change the registration number, the invoice and related warranty details are automatically replaced with values associated with the new registration number.

If you want to view the registration details or search for a registration record, click the Warranty Search link. This link displays the Warranty Registration: Results page that contains the list of registration records. At top of the list, you can use the filtering options to limit the records shown on the page. Click the expand icon in the Filter bar to display the fields where you can set the filtering criteria.

2. The following fields are automatically populated with details from the associated registration record. You can change the values of select fields:

Field	Description
Invoice	<p>Depending on the mode of registration, this field displays the NetSuite invoice or your reference invoice number. You can change the invoice number.</p> <p>Note: Be sure to enter an invoice that is associated with your selected customer. When you change the invoice, the fields for the registration number and other warranty details are automatically cleared. You can then enter the associated registration number or select another item.</p>
Item	<p>This field displays the warranty item.</p> <p>You can select an item only when the invoice number is changed. Items included in the list are based on the selected invoice.</p>
Serial/Lot Number	<p>For serial or lot numbered items, this field displays the NetSuite or your reference serial or lot number depending on the mode of registration.</p> <p>When you change the item, this field is also replaced with the serial or lot number associated with the selected item.</p> <p>For manual registrations, if a lot numbered item is registered without a reference lot number, claims for that registration are also assigned a blank lot number.</p>
Warranty Start Date	<p>This field displays the original warranty start date.</p> <p>When you change the registration number, this field is also replaced with the warranty start date indicated on the registration.</p>
Warranty Expiration	<p>This field displays the warranty expiration date.</p> <p>When you change the registration number, this field is also replaced with the warranty expiration indicated on the registration.</p>
Warranty Status	<p>This field displays the warranty status.</p> <p>When you change the registration number, this field is also replaced with the status indicated on the registration.</p>

3. In the **Failure Reason** field, select a failure reason for the claim or select **New** to add another failure reason.

4. In the **Action** field, select the appropriate action for the claim or select **New** to add another action.

Take note when selecting the following actions:

- **Repair** – This action is only applicable to assembly items. To process a repair claim, be sure to enable the required features. For the list of requirements, see [Prerequisites](#).
- **Void** – This action prevents further processing of the claim by removing the option to create an RMA.



Note: The option to create a new failure reason and action is available only for the Administrator role.

5. Optionally, you can enter information in the **Product** and **Module** case fields.

For more information about these fields, see the help topic [Working with Products and Modules](#).

4. Click **Save**.

After creating a claim, you can start processing it by creating an RMA. If you have to change the claim details, be aware of the fields that cannot be edited after creating the RMA. For more information, review the following topics:

- [Creating a Return Authorization for a Warranty Claim](#)
- [Editing a Warranty Claim](#)

Editing a Warranty Claim

You can access existing warranty claims by going to Lists > Warranty and Repairs > Warranty Claim List. On the Warranty Claim: Results page, click the Edit or View link for the claim record. If you are viewing a registration record, you can also view the list of associated claims on the **Related Records** subtab.

You can update the details of a claim, including the claim date, time, complaint, profile, contact information, claim status, and failure reason. The following fields can be edited only if the claim does not yet have an existing RMA:

- Customer
- Registration No.
- Invoice
- Item
- Action

When claims are associated with a return authorization, you cannot edit these fields. It includes dependent fields, such as the **Serial/Lot Number** field, which depends on the value of the **Item** field. For a description of these fields, see [Creating a Warranty Claim](#).

In edit mode, you can do any of the following:

■ **Void a Claim**

You can only void a claim that has no associated RMA records, regardless of the status of the RMA. To void a claim, select **Void** from the list in the **Action** field. The option to create an RMA from the claim is removed.

■ **Delete a Claim**

You can delete a claim that has no associated return authorizations and claim related transactions. To delete a claim, select Delete from the **Actions** submenu.

Note: Clicking the Remove link on the **Related Records** subtab only removes a record from the list displayed on the claim. The record remains associated with the claim, so the claim cannot be deleted. However, if you remove a claim related record, it cannot be displayed on the claim again.

Return Authorization for Warranty Claims

The return materials authorization (RMA) authorizes the customer to return defective products to the supplier for refund, replacement, or repair. After determining the correct action for a claim, you can create an RMA to initiate the claim processing. See the following topics for creating the RMA:

- [Creating a Return Authorization for a Warranty Claim](#)
- [Viewing Related Records of Warranty Claims](#)
- [Approving a Return Authorization for a Warranty Claim](#)

On the RMA record, you can create an item receipt for the warranty item returned by the customer. You can also create the appropriate transaction needed to process the refund, repair, or replacement. See the following topics for processing the claim after receiving the warranty item:

- [Creating an Item Receipt from a Return Authorization](#)
- [Processing Refund, Repair, and Replacement Claims](#)

Creating a Return Authorization for a Warranty Claim

Return authorizations are associated and tracked on the warranty claim record. You can view associated RMAs and other related claim records on the **Claim Transactions** subtab of the **Related Records** subtab. When a claim has existing RMA records, you cannot edit specific fields in the Warranty Information section of the claim record. You also cannot delete the claim. For more information, see [Editing a Warranty Claim](#).

To create a return authorization for a warranty claim:

1. Go to Lists > Warranty and Repairs > Warranty Claims List.
2. On the Warranty Claim: Results page, click the View link for the claim record.
3. On the Warranty Claim page, click **Create RMA**. A new Return Authorization form is displayed.
4. On the Return Authorization page, in the Primary Information section, the following required fields are automatically populated with claim details. You can change the default values of editable fields.

Field	Description
Custom Form	Select the return authorization form.
Customer	This field displays the customer indicated on the claim record.
Date	The date of the RMA defaults to the current date. You can enter another date or pick a date from the calendar.
Status	The status of the RMA defaults to Pending Approval . You can update the status.

5. Enter values in the other Primary and Sales Information section fields. In the Classification section, if you have the Class, Location, and Department features enabled, select or update the values in their corresponding fields.

For more information about these return authorization sections, see the help topic [Return Authorization \(RMA\) Forms](#).

6. In the Warranty Information section, you can review the details, such as the claim number, warranty item, and action. The fields displayed in this section depend on the action of the associated claim. They are automatically populated with details from the claim record and other related transactions.
7. On the **Items** subtab, you can do the following for each line item:
 1. In the **Quantity** column, enter the quantity.

 **Note:** For serialized items, the quantity must be set to **1** because you can process only one claim for each serial number.
 2. In the **Inventory Detail** column, click the Inventory Details icon to enter the details for serialized or lot numbered items, as indicated on the claim.
 3. You can enter other item details, such as the description, units, and unit price.

 **Note:** You must not add, change, or remove warranty items on the return authorization. If the warranty items do not match the details on the claim, the RMA cannot be submitted.
 4. Click **OK** to save a line item.
8. Click **Save**.

Return authorizations that are set to **Pending Approval** status are submitted for approval before you can create an item receipt. View the topics for procedures that follow after creating an RMA:

- To approve an RMA, see [Approving a Return Authorization for a Warranty Claim](#).
- To create an item receipt, see [Creating an Item Receipt from a Return Authorization](#).
- For replacement claims, if your account has the Ship Replacement in Advance preference enabled, you can proceed to creating the sales order. For instructions, see [Creating a Sales Order for Replacement Claims](#). For more information about the preference, see [Setting Warranty Preferences](#).

Viewing Related Records of Warranty Claims

Return authorizations and item receipts that you create on a warranty claim are tracked on the claim record. Only approved return authorizations are included for tracking. From a claim, you can open a related record in view or edit mode.

To view related records of warranty claims:

1. Go to Lists > Warranty and Repairs > Warranty Claims List.
2. On the Warranty Claim: Results page, click the View link for the claim record.
3. On the Warranty Claim page, click the **Related Records** subtab and then click the **Claim Transactions** subtab
4. In the list of claim transactions, you can access the record by doing either of the following:
 - Click the Edit link to open the record in edit mode.
 - In the **Document Number** column, click the number link to open the record in view mode.

In view mode, the options to approve an RMA, create an item receipt, or create claim related transactions are displayed. For instructions, see the following topics:

- Approving a Return Authorization for a Warranty Claim
- Creating an Item Receipt from a Return Authorization
- Processing Refund, Repair, and Replacement Claims

Approving a Return Authorization for a Warranty Claim

A return authorization in **Pending Approval** status can be approved or cancelled. On the RMA record, the options to approve and cancel are displayed only in view mode. For instructions on accessing an RMA, see [Viewing Related Records of Warranty Claims](#).

The following instructions begin after opening an RMA record.

To approve a return authorization for a warranty claim:

1. On the Return Authorization page, verify that the details are correct and complete.
You can edit some details before approving the RMA. After saving your changes, the record returns to view mode. For more information about the claim fields that you can edit, see [Creating a Return Authorization for a Warranty Claim](#).
2. Click **Approve Return**.

After approving an RMA, you can create an item receipt. If you choose to cancel, the RMA is not tracked on the claim record and it cannot be resubmitted for approval or further processing.

Creating an Item Receipt from a Return Authorization

When an RMA has been approved or if it does not require approval, the record is set to **Pending Receipt** status. The option to create an item receipt is displayed only in view mode. For instructions on accessing an RMA, see [Viewing Related Records of Warranty Claims](#).

Note: For replacement claims, if your account has the Ship Replacement in Advance preference enabled, you have the option to create a sales order. This option enables you to create a sales order for sending the replacement item to the customer, before receiving the warranty item. For more information about the preference, see [Setting Warranty Preferences](#). For instructions on creating a sales order, see [Creating a Sales Order for Replacement Claims](#).

The following instructions begin after opening an RMA record.

To create an item receipt from a return authorization:

1. On the Return Authorization page, verify that the details are correct and complete.
If you need to edit the RMA before creating the item receipt, click **Edit** to update the record. After saving your changes, the record returns to view mode.
2. Click **Receive**. A new Item Receipt form is displayed.
3. On the Item Receipt form, you can view and edit the details in the Primary Information section.
4. On the **Items** subtab, do any of the following:
 - In the **Receive** column, be sure to check the box for the warranty item.
 - In the **Location** column, if you use the Multi-Location Inventory feature, select the location for the received item.
 - In the **Quantity** column, verify that the quantity of received items is correct.

- In the **Inventory Detail** column, enter the details for serialized and lot numbered items, as indicated on the claim.
 - In the **Restock** column, be sure to check the box for repair claims. This box indicates that you are going to return the item to the inventory.
5. Click **Save** to create the item receipt record.



Note: You must not select the **Save & Refund** option because cash refunds are not supported. For more information, see [Limitations and Recommendations](#).

After creating an item receipt, you can return to the RMA to process the claim for refund, replacement, or repair. For more information, see [Processing Refund, Repair, and Replacement Claims](#).

For partially received items, you can already process a refund for the returned items or receive additional warranty items. The **Receive** option is not available when you have received all the warranty items, or when you close the line item.

Item receipts are tracked on their associated RMA and claim record. On both records, item receipts are listed on the **Related Records** subtab. For more information about viewing item receipts on claims, see [Viewing Related Records of Warranty Claims](#).

Processing Refund, Repair, and Replacement Claims

After receiving the items, you can continue processing according to the action defined on the claim record. See the following topics for each claim action:

- [Creating a Credit Memo for Refund Claims](#)
- [Creating a Sales Order for Replacement Claims](#)
- [Creating a Sales Order for Repair Claims](#)

After creating an item receipt, the option to create the credit memo or sales order is displayed on the RMA record. For replacement claims, if your account has the Ship Replacement in Advance preference, you have the option to create the sales order even before creating the item receipt. For more information about this preference, see [Setting Warranty Preferences](#).

To access the RMA record from a claim, see [Viewing Related Records of Warranty Claims](#). Alternately, if you have the item receipt open, click the Return Authorization link in the **Created From** field. The option to create a credit memo or sales order is displayed only in view mode. The following instructions begin after opening an RMA record.



Important: When you open an RMA record to create the credit memo or sales order, you must not add, change, or remove warranty items on the RMA. You cannot submit the RMA if you remove a warranty item.



Note: Manually attaching transaction records to an RMA record is not a supported user action.

Creating a Credit Memo for Refund Claims

The following instructions show you how to create a credit memo specifically from a return authorization of a warranty claim.

Although you have the option to add more warranty items on a credit memo, only one RMA can be associated with it. To ensure proper tracking, it is best not to combine warranty items from different RMAs into one credit memo.

To create a credit memo for refund claims:

1. On the Return Authorization page, click **Refund**. A new Credit Memo form is displayed.
2. On the Credit Memo page, the required fields are populated with details from the RMA. You can enter other credit memo details in the Primary and Sales Information sections. In the Classification section, if you have the Class, Location, and Department features enabled, verify or select the values in their corresponding fields. For more information about creating a credit memo, see the help topic [Issuing a Customer Credit Memo](#)
3. On the **Items** subtab, verify that the quantity and amount for the warranty item match the values on the RMA. You can enter other details for the warranty items. For more information, see the Items section in the topic, [Issuing a Customer Credit Memo](#).



Note: You must not change or remove warranty items on the credit memo. If a warranty item is replaced or removed, the credit memo cannot be submitted.

4. Click **Save**.

You can view a credit memo on the associated RMA and claim record, on the **Related Records** subtab. To apply a credit memo to customer transactions, see the help topic [Applying a Customer Credit Memo](#).

Creating a Sales Order for Replacement Claims

After receiving an item, you can create the sales order from the return authorization. Processing of replacement claims vary when you have either of the following warranty preferences enabled in your account:

- Ship Replacement in Advance – This preference enables the **Create SO** button on the RMA even if you have not received the item and created an item receipt.
- Close RMA Upon SO Creation – This preference automatically closes the RMA when you have created the sales order.



Important: If you have the Close RMA Upon SO Creation preference enabled, an RMA is automatically closed even when all items have not been received yet. When you create a sales order for partially received items, you cannot receive additional items on the item receipt.

For more information about these preferences, see [Setting Warranty Preferences](#).



Note: You must have full permissions to Return Authorization to link the created Sales Order back to the Return Authorization form.

Although you have the option to add more warranty items on a credit memo, only one RMA can be associated with it. To ensure proper tracking, it is best not to combine warranty items from different RMAs into one credit memo.

The following instructions begin after opening an RMA record in view mode. For instructions on accessing an RMA from a claim or item receipt, see [Processing Refund, Repair, and Replacement Claims](#).

To create a sales order for replacement claims:

1. On the Return Authorization page, click **Create SO**. A new Sales Order form is displayed.
2. On the Sales Order page, the required fields are populated with details from the RMA. You can enter other sales order details in the Primary and Sales Information sections. In the Classification section, if you have the Class, Location, and Department features enabled, verify or select the values in their corresponding fields. For more information about creating a sales order, see the help topic [Creating Sales Orders](#).
3. On the **Items** subtab, verify that the quantity of the warranty item matches the value on the RMA.
 - For replacement items, the amount of the warranty item is set to zero.
 - You can enter other details for the warranty item. For more information, see the Items section in the topic, [Creating Sales Orders](#).



Note: You must not change or remove warranty items on the sales order. If a warranty item is replaced or removed, the sales order cannot be submitted.

4. Click **Save**.

When you save the sales order in **Pending Approval** status, the record is submitted for approval. To process the shipping of the replacement item, see the help topic [Order Fulfillment](#). The sales order can be tracked on the associated claim record, on the **Related Records** subtab, and RMA record, in the **Replacement SO No.** field.

Creating a Sales Order for Repair Claims

Repair claims for assembly items require a sales order to track outgoing inventory. On the sales order, you can add the repaired items, and include replacement parts or additional services required for the repair.



Important: If you have the Close RMA Upon SO Creation preference enabled, an RMA is automatically closed even when all items have not been received yet. When you create a sales order for partially received items, you cannot receive additional items on the item receipt. For more information about the preference, see [Setting Warranty Preferences](#).

To review the setup requirements related to repair claims, see [Creating Repaired Items](#).

The following instructions begin after opening an RMA record in view mode. For instructions on accessing an RMA from a claim or item receipt, see [Processing Refund, Repair, and Replacement Claims](#).

To create a sales order for repair claims:

1. On the Return Authorization page, click **Create SO**. A new Sales Order form is displayed.
2. On the Sales Order page, the required fields are populated with details from the RMA. You can enter other sales order details in the Primary and Sales Information sections. In the Classification section, if you have the Class, Location, and Department features enabled, verify or select the values in their corresponding fields. For more information about creating a sales order, see the help topic [Creating Sales Orders](#).
3. On the **Items** subtab, be sure to check the box in the **Create WO** column for the repaired item.



Note: You must not change or remove repaired items on the sales order. If the item is replaced or removed, the sales order cannot be submitted.

4. Click **OK** to save the line item.

If you want to add line items for replacement parts or additional services, click **Add** and then enter the details in the new line item.

5. Click **Save**.

When you save the sales order in **Pending Approval** status, the record is submitted for approval. The sales order can be tracked on the associated claim record, on the **Related Records** subtab, and RMA record, in the **Replacement SO No.** field.

After a sales order has been approved, the record is updated with the work order number on the **Items** subtab. In the **Create WO** column of the warranty line item, click the work order number link to open the Work Order form. Work orders are included in the list on the **Related Records** subtab of the associated claim.

When creating a work order for a repair claim, you can review the repaired items that you assigned to the assembly items. For more information, see [Setting Up Warranty Information on the Item Record](#).

For more information about work order processing and other required forms, see the following topics:

- To enter a work order, see the help topic [Entering an Individual Work Order](#) or [Assembly Work Orders](#).
- To enter an assembly build, see the help topic [Building Assembly Items](#).
- To create an item fulfillment, see the help topic [Order Fulfillment](#).

Quality Management Overview

Effective quality management helps your organization meet regulatory and internal quality expectations that can help formalize and assess your company's inventory and process standards. The NetSuite Quality Management SuiteApp provides templates and tools to help you maintain and associate quality data to other business records and workflows.

The following NetSuite Quality Management SuiteApp components contribute to the quality manufacturing program:

- [Quality Management Administration](#)
- [Quality Management User Guide](#)

Quality Management Administration

NetSuite Professional Services works with your NetSuite Administrator to set up and configure the Quality Management SuiteApp to leverage important NetSuite data.

 **Note:** Do not change these features and preferences after they are enabled.

NetSuite Quality Management Administration displays the following topics:

- [Quality Management Roles](#)
- [Quality Process Flow](#)
- [Quality Management Prerequisites](#)
- [Customizing Quality Management Workflows](#)
- [Quality Management Connect](#)
- [NetSuite Plugins](#)
- [Quality Management REST API](#)

Quality Management Roles

NetSuite Quality Management SuiteApp roles are assigned to employees who need to view or edit specific data.

To inspect data on the Quality Management tablet interface, you must log in as a quality administrator, a quality engineer, or a quality manager role. The Administrator or custom role has read-only access within the tablet.

To add a custom role name, you must include a comma separated value in the custom role script parameter for the `customdeploy_qm_rest_getinitialdata` deployment script.

The following roles and their permissions determine which features are available in the Quality Management interface and the tasks that they can complete:

- [Quality Administrator](#)
- [Quality Manager](#)
- [Quality Engineer](#)

For more information, see the help topic [Assigning Roles to an Employee](#).

Quality Administrator

Quality administrators oversee the initial implementation of the NetSuite Quality Management SuiteApp and manages its ongoing administration.

The quality administrator completes the following tasks:

- Define and edit quality inspections and specifications.
- Edit inspection queue priorities and assignments.
- Capture inspection data.
- Generate reports.
- Modify workflows.



Note: When you log in with a standard SuiteApp Quality Management role, the Quality Management tablet interface opens in write mode. The quality administrator role does not have write access to the Quality Management tablet.

Quality Manager

Quality managers align quality practices to company and industry policies, assigns and monitors quality priorities, leads quality failure responses, and shares continuous improvement data. Administrators work with quality engineers, planners, and plant managers, to monitor and enforce inspections, align processes with business needs, capture inspection data, and assess conformance.

The quality manager role completes the following tasks:

- Edit inspection queue priorities and assignments.
- Identify production processes and capture inspection data.
- Generate and review reports to analyze production quality.
- Refer to historical quality inspection data to evaluate processes.
- Identify non-conformance to enable corrective actions.

Quality Engineer

The quality engineer is the person on the shop floor who records inspection data according to defined quality specifications. They enforce quality processes, collect inspection data, escalate quality failures, and implement new processes that result from quality issues. The quality engineer works closely with shop-floor staff and the quality manager to identify a non-conformance during an inspection that should trigger defined corrective actions.

The quality engineer role completes the following tasks:

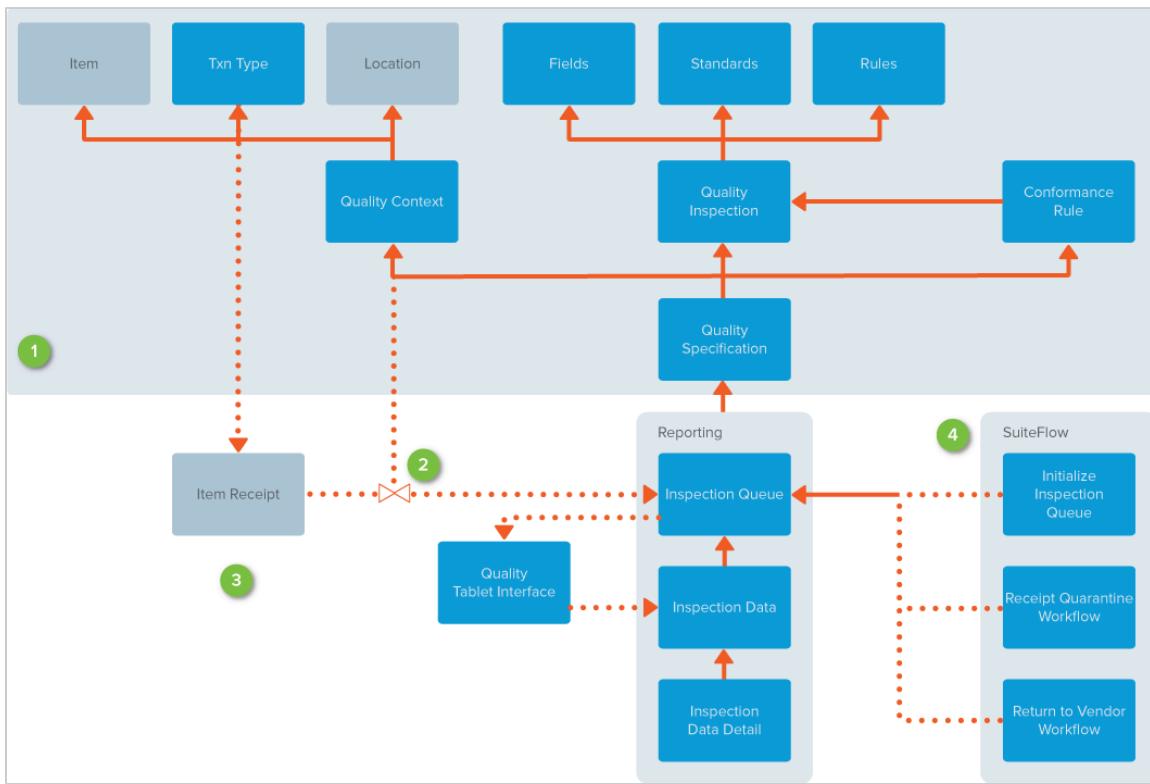
- Can view required and pending production inspections.
- Capture inspection data.
- Record notes to support inspection findings.
- use the tablet to capture photos to support inspection findings.
- Generate quality reports.

Quality Process Flow

The Quality Management SuiteApp links quality functions to business processes that are managed through NetSuite.

The following diagram depicts the relationship between triggering transactions (item receipt), required inspections, and conformance driven quality responses that the SuiteApp supports.

1. Complete administrative processes.
 2. The transaction process populates the queue.
 3. The queue is processed in the tablet.
 4. Results are entered and evaluated.
- SuiteFlow processes could be initiated.



Quality Management Prerequisites

You must enable the features before you work with the NetSuite Quality Management SuiteApp.

To enable prerequisite features:

1. Go to Setup > Company Enable Features.
2. On the **Company** subtab, check the following boxes:
 - Locations
 - Multiple Units of Measure
 - File Cabinet
3. On the **Transactions** subtab, check the following boxes:
 - Return Authorizations
 - Purchase Orders
 - Vendor Return Authorizations
4. On the **Items & Inventory** subtab, check the **Inventory** box.
5. On the **SuiteCloud** subtab, check the following boxes:
 - Custom Records
 - Client SuiteScript
 - Server SuiteScript
 - SuiteFlow
6. Click **Save**.

Customizing Quality Management Workflows

The Quality Management SuiteApp supports the modeling and execution of business processes associated with quality non-conformance. To create your own organizational workflow, copy and configure NetSuite baseline or Quality Management workflows. The Quality Management SuiteApp supports the modeling and execution of business processes associated with quality non-conformance.

The following Quality Inspection Queue and Quality Workflow sections describe how to customize your Quality Management workflow:

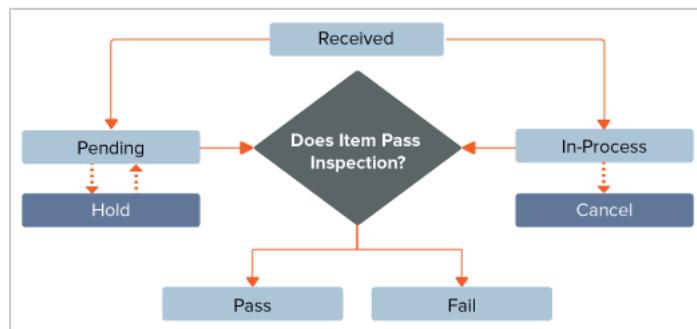
- [The Quality Inspection Queue](#)
- [Quality Workflows](#)
- [Interpreting Status and Action](#)

The Quality Inspection Queue

Each quality inspection queue record (inspection) represents a triggered quality specification. It is the primary record displayed in the quality tablet list and the inspection queue Suitelet. All non-conformance workflows monitor this record type and respond to changes in the status and action fields.

The Status Field

The Status field value is affected by data collected and evaluated during an inspection. To control the lifecycle, quality managers can assign a value to the Status field. The following diagram displays the typical development of the Status field.



The Status workflow shows that you can only collect data from inspections that are in **Pending** or **In-Process** state. The dotted line transitions (to Hold and Cancel) can only be made manually by quality managers.

Conformance rules defined for the specification determine an inspection's Pass or Fail status and are evaluated once all quality data has been submitted.

The Action Field

The values that can be assigned to the Action field are controlled by the NetSuite Quality Conformance Action list. The following values are associated with the baseline workflows:

- **Quarantine:** prompts NetSuite workflows to stop the item from being used

- **Return to Vendor**: prompts NetSuite to initiate the return items to vendor process
- **New**: add actions to the list to trigger workflows

Interpreting Status and Action

Specific Select and Action field combinations can trigger the baseline workflows delivered with the Quality Management SuiteApp. The following table describes the workflow responses to inspection combinations.

Action/Status	Pending	In-Process	Pass	Fail
Quarantine	Quarantine : pre-inspection quarantine			Quarantine : post-inspection quarantine
Return to Vendor			Quarantine : release if ready quarantine	Return to Vendor : initiate return to vendor authorization

Quality Workflows

The Quality Management SuiteApp delivers workflow templates that you can copy and deploy with minimal setup.

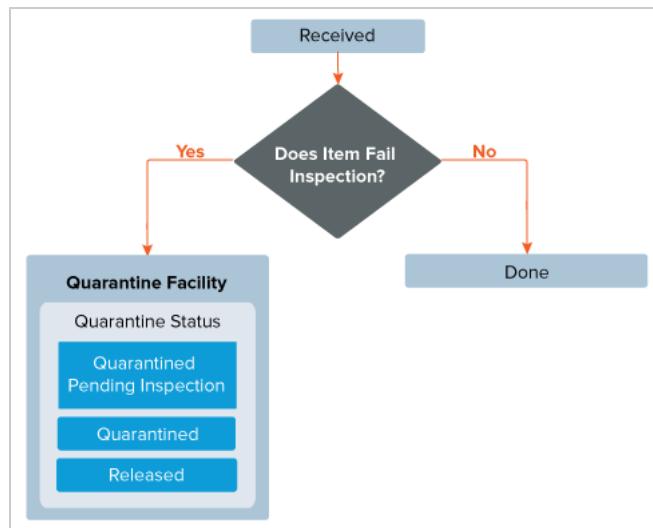
To access a template, go to Customization > Workflow > Workflows.

Quarantine Workflow

The Quarantine workflow monitors inspection transitions. It uses a custom SuiteFlow script to perform a NetSuite Bin Transfer or Inventory Status Change to designate items as quarantined and subsequently released.

Note: To configure the Quarantine workflow, you must enable bin transfer and check the item **Use Bins** box.

The following diagram describes the Quarantine workflow:



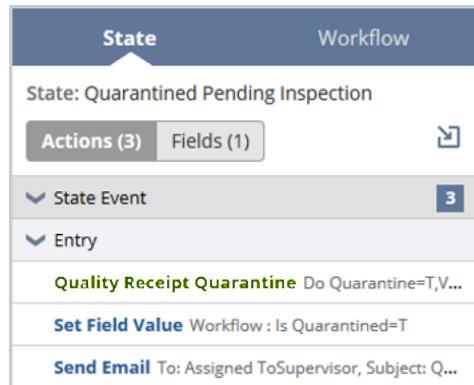
To learn more, see the help topic [Creating a Workflow](#).

SuiteFlow Configuration

You can use the Quality Receipt Quarantine SuiteFlow script in the following workflow states:

- Released
- Quarantined Pending Inspection
- Quarantined

The following diagram shows the SuiteFlow script in the State Action list:



You can configure the SuiteFlow script to control behavior through the following parameters that are exposed in the State subtab, Action list.

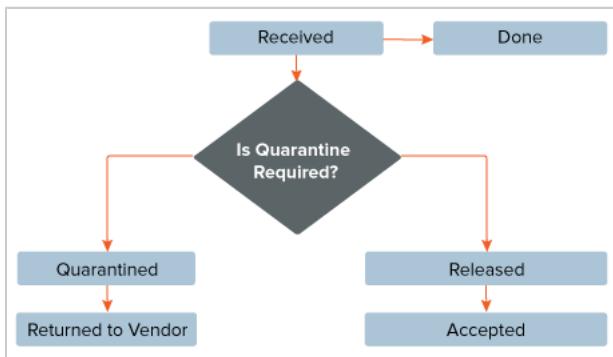
The following table describes the Parameters subtab fields:

Field	Action
Move into Quarantine	A boolean value that indicates whether to apply the script or reverse the quarantine action. For example, bin-transfer into or out of the quarantine bin. <ul style="list-style-type: none"> ■ Select Yes for quarantine and pre-quarantine states. ■ Select No for release state.
Set Inventory Status	A boolean value that indicates whether the NetSuite action perform an Inventory Status Change. Set identically on all states that use the script.
Quarantine Status ID	The internal inventory status record ID that represents all quarantined material. <ul style="list-style-type: none"> ■ Only set if Create Bin Transfer is set to Yes ■ Set identically on all states that use the script.
Create Bin Transfer	A boolean value that indicates whether NetSuite should perform Bin Transfer. Set identically on all states that use the script.
Quarantine Bin	A boolean value that indicates whether NetSuite perform a Bin Transfer or an Inventory Status Change. <ul style="list-style-type: none"> ■ Set if Create Bin Transfer is set to Yes. ■ Set identically on all states that use the script.

Return to Vendor Workflow

The Return to Vendor workflow monitors inspection transitions. This workflow uses a custom SuiteFlow script to create a Vendor Return Authorization that starts item receipt return process that failed inspection.

The following diagram outlines the Return to Vendor workflow:



SuiteFlow Overview and Modification

The Quality Receipt Return SuiteFlow script is used when the workflow is in Returned state. This script reviews the inspection to identify the Purchase Order (P.O.) and the item receipt that generated it. The system then creates a new vendor return authorization (VRA) record from the receipt for all line items in the original receipt.



Important: Carefully consider when modifying the baseline NetSuite script to better control the scope of the return. All modifications are the responsibility of the customer.

Potential Enhancements:

- Only the item that failed the inspection.
- Only the item lots that failed inspection.

Leveraging Delivered Workflows

Quality Management workflows are not deployed and locked to ensure that:

- The system does not invoke business behavior until you review and update the workflows.
- Future bundle updates will not conflict with, or compromise, specific configurations.

Take the time to copy, configure, and enable workflows that support your Quality Management implementation.

[Modifying Quality Management Workflows](#)

To implement a bin transfer:

1. Check the item **Use Bins** box.
Do not modify workflow field IDs unless a custom script is attached to the workflow.
2. Configure bins and statuses for the lot in the item receipt, if enabled.

To implement a status transfer:

1. Go to Setup > Company > Company Features.
2. In the **Items & Inventory** subtab, check the **Inventory Status** box.
If Inventory status is checked, then status transfer functionality is mandatory.
3. To implement status transfer, clear the item bin option box.
Do not modify workflow field ids unless a custom script is attached to the workflow.
4. Configure bins and statuses for the lot in the item receipt, if enabled.



Note: The Quality Receipt Quarantine workflow template supports the Receipt from Purchase Order transaction trigger. To use a similar workflow for other trigger types, attach a custom script with the implementation you want to use.

To copy a receipt quarantine workflow:

1. Go to Customization > Workflow > Workflows.
2. Click the **Name** link for the workflow you want to work with.
The Release Status must be Suspended.
3. In the **Workflow** page, click **More** and then click **Make Copy**.
After all states are changed done, only newly created (copied) workflows should display Released status.

To create a Quarantine Pending Inspection:

1. In the copied workflow, complete the following:
 - a. Delete the **Quarantine Pending Inspection** action.
 - b. Click **New State**.
 - c. In the **State** popup window, click **New Action**.
 - d. Click **Quality Receipt Quarantine (Custom)**.
 - e. Click **Save**.

To create **Released** and **Quarantine** states, repeat steps a - e.

To update the **Released** and **Quarantine** states, complete steps a to c.

2. To customize the copied workflow, open the workflow.
3. In the workflow page, click the **Quarantined Pending Inspection** state box.
4. In the **State** panel, click **Quality Receipt Quarantine**:
 - a. Ensure that the **Move into Quarantine Value** is Yes.
 - To enable bin transfer, click **Create Bin Transfer**.
 - To enable status transfer, click **Set Inventory Status**.
 - b. Click **Save**.
5. Click the **Released** state tile.
6. In the Released panel, click **Quality Receipt Quarantine**:
 - a. Clear the **Move into Quarantine** box.
 - b. To enable status transfer, check the **Set Inventory Status** box.
 - c. To enable bin transfer, check the **Create Bin Transfer** box.

- d. Click **Save**.
7. Click the **Quarantined** tile.
8. In the **State** panel click **Quality Receipt Quarantine** to update the following:
 - a. Check the **Move into Quarantine** box.
 - b. Clear the **Quarantine Pending Inspection State** box.
 - c. Click **Save**.

To transfer a lot to quarantine:

1. To optionally transfer the lot to quarantine, complete the following:
 - a. Go to Lists > Accounting > Items.
 - b. Next to the item you want to update, click **Edit**.
 - c. In the Custom subtab, beside the item you want to update, click the **Specification Context**.
 - d. In the Pre-Inspection Action field, select **Quarantine**.
 - e. Click **Save**.
2. To optionally transfer a lot from quarantine to a user configured bin after the inspection queue is processed, set a conformance rule:
 - a. Go to Quality > Specifications > Search.
 - b. Click List **Specification**.
 - c. Next to the item you want to update, click **Edit**.
 - d. In the **Quality Specification Form**, click the **Conformance Rules** subtab.
 - e. Beside the rule you want to edit, click **Edit**.
 - f. In the **Action** list, select **Quarantine**.
 - g. Click **Save**.

Pre-inspection and Conformance Rule Queue Bin Status

The following table displays the queue status details and lot location based on pre-inspection action and conformance rule configurations. The quarantined bin must be defined in the workflow.

Serial Number	Inspection Queue Status	Pre-Inspection Status	Conformance Rule	Lot Bin
1	Pending/In work	Set to Quarantine	Set to Quarantine	Quarantine Bin
2	Pass	Set to Quarantine	Set to Quarantine	User Defined Bin
3	Fail	Set to Quarantine	Set to Quarantine	Quarantine Bin
4	Pending/In work	Not Set	Set to Quarantine	User Defined Bin
5	Pass	Not Set	Set to Quarantine	User Defined Bin
6	Fail	Not Set	Set to Quarantine	Quarantine Bin
7	Pending/In work	Set to Quarantine	Not Set	Quarantine Bin
8	Pass	Set to Quarantine	Not Set	User Defined Bin
9	Fail	Set to Quarantine	Not Set	Quarantine Bin

Pre-inspection and Conformance Rule Queue Lot Status

The following table displays the queue and lot status based on pre-inspection action and conformance rule configurations. The transferred status must be defined in the workflow.

Serial Number	Inspection Queue Status	Pre-Inspection Status	Conformance Rule	Lot Bin
1	Pending/In work	Set to Quarantine	Set to Quarantine	User Defined Status
2	Pass	Set to Quarantine	Set to Quarantine	Good Status
3	Fail	Set to Quarantine	Set to Quarantine	User Defined Status
4	Pending/In work	Not Set	Set to Quarantine	Good Status
5	Pass	Not Set	Set to Quarantine	Good Status
6	Fail	Not Set	Set to Quarantine	User Defined Status
7	Pending/In work	Set to Quarantine	Not Set	User Defined Status
8	Pass	Set to Quarantine	Not Set	Good Status
9	Fail	Set to Quarantine	Not Set	User Defined Status

Do not modify workflow field ids unless a custom script is attached to the workflow.

Currently the workflow Action parameter values, Quality Receipt Quarantine, should be same for all statuses. The values for Quarantine Bin and Quarantine Status ID should be the same for the Released, Quarantined Pending Inspection, and Quarantined states. For any other requirements, you can customize the workflow.

To implement bin transfer:

1. Go to Lists > Accounting > Items > New (Administrator).
2. Click **Edit** beside the item name.
3. On the item record, click the **Purchasing/Inventory** subtab.
4. Check the **Use Bins** box.
For only status transfer, clear the use bin box.
5. Click **Save**.
6. To execute the status transfer:
 - a. Go to Setup > Company > Enable Features.
 - b. In the **Items & Inventory** subtab, check the **Inventory Status** box.
When enabled, in the Item Receipt, configure lot Bins and Status.
7. Click **Save**.

Configuring Workflows

Each NetSuite baseline workflow configuration is described in workflow sections.

To enable a workflow:

1. in the workflow list, next to the newly copied workflow, click **Edit**.
2. In the workflow, click the pencil icon.
3. In the **Release Status** list, select **Released**.
4. Click **Save**,

Creating Workflows

Workflows can be defined and implemented to work with the Quality SuiteApp in the same manner as NetSuite workflows. New workflows should:

- Leverage new Quality Conformance Actions to help isolate behavior to specific non-conformance rules.
- Monitor quality inspection queue records.
- Define state transitions based on a combination of the Status and Action fields.
- To avoid orphaned workflows, ensure the workflow ends once the Status is either Pass or Fail.
- Be thoroughly tested especially if there is a potential for multiple workflows to be triggered simultaneously.

To learn more, see Specification Conformance Rules.

Receipt Quarantines Workflows

The following table shows the Receipt Quarantines workflows available in Quality Management and their respective capabilities.

Workflow	Bin Transfers	Inventory Status Updates	Details
Receipt Quarantines	Required	Required	Updates your item's bin transfer and inventory status based on the inspection outcome
Enhanced Receipt Quarantines	Optional	Optional	<p>Lets you do the following:</p> <ul style="list-style-type: none"> ■ Configure your item's bins and inventory statuses relevant to the inspection outcome ■ Inspect items in inventory from a specific bin or inventory status <p>For more information, see Enhanced Receipt Quarantines Workflow.</p>

i Note: You can only implement either the Receipt Quarantines or Enhanced Receipt Quarantines workflow at any specific time.

To implement the Enhanced Receipt Quarantines workflow, see [Configuring the Enhanced Receipt Quarantines Workflow](#).

For more information about the Receipt Quarantines workflows, see [Quality Management Workflows](#).

Enhanced Receipt Quarantines Workflow

The Enhanced Receipt Quarantines workflow supports the following for each lot:

- **Optional bin transfers** – For non-controlled items and lot controlled items. Each lot can be in a different bin.
- **Optional inventory status updates** – For non-controlled and lot controlled items. Each lot can be in a different inventory status.

To inspect an item available in inventory from a specific bin or inventory status, see [Creating an Ad Hoc Inspection Queue Without a Transaction Reference](#).

You can implement the following transfers:

- Both bin transfers and inventory status updates
- Bin transfers only
- Inventory status updates only
- Neither bin transfers nor inventory status updates

Lots with a Pass or Fail status can have unique bin transfers and inventory statuses. During inspection, Quality Management automatically moves passed and failed items and lots to different bins and inventory statuses.

For example, if Lot 1 passes, it moves to the respective Pass bin or inventory status. If Lot 2 fails, it moves to the respective Fail bin or inventory status.

The following table describes the bins and inventory statuses you can configure for bin transfers and inventory status updates.

Bin Transfers	Inventory Status Updates
<ul style="list-style-type: none"> ■ Pre-Inspection Bin – To assign your NetSuite transaction inventory detail a bin before an inspection. When you configure the workflow, you can assign a pre-inspection (quarantine) bin to all the lots for the item. ■ Bin On Pass – To move the inspected item or lot to the Pass bin when the inspection passes. ■ Bin On Fail – To move the inspected item or lot to the Fail bin when the inspection fails. 	<ul style="list-style-type: none"> ■ Pre-Inspection Status – To assign your NetSuite transaction inventory detail an inventory status before an inspection. When you configure the workflow, you can assign a pre-inspection status to items or lots you want to inspect. ■ Inventory Status On Pass – To move the inspected item or lot to the Pass inventory status when the inspection passes. ■ Inventory Status On Fail – To move the inspected item or lot to the Fail status when the inspection fails.

For more information, see [Configuring the Enhanced Receipt Quarantines Workflow](#).

Quality Management Connect

The NetSuite Quality Management SuiteApp enables you to send pending inspection notifications to NetSuite partners so that they can collect and evaluate inspection data. After the inspection has been completed, the results can be transmitted to NetSuite to trigger business processes using the existing REST interface.

Based on NetSuite's SuiteSignOn, Quality Management Connect initiates an outbound (SuiteSignOn) call to an external application using an SSO OAuth token.

The external application uses the token to create an OAuth signature and then authenticates the application with NetSuite to establish an active web service session to retrieve quality inspection queue records. This session is valid for 20 minutes.

This process enables partner solutions to retrieve enough information to push quality data back to NetSuite in order to initiate workflow actions.

NetSuite 2020.2 Quality Management Connect supports the following inspection types:

- Material Receipt
- Assembly Build
- Work Order Build

Quality Management OAuth 2.0

Client-server authentication models require you to request access to protected server resources using the resource owner's credentials. To give access to restricted resources, resource owner shares its credentials with the third party.

For example, a client has access to the Quality SuiteApp and needs to invoke the RESTlet from an application running outside of NetSuite. The client must enter their user ID and password. This is dangerous as it allows third-party access to the client's account and they can perform any operation.

NetSuite OAuth addresses these issues by introducing an authorization layer and separating the role of the client from the resource owner. The OAuth 2.0 authorization framework enables third party applications to obtain limited access to HTTP services (RESTlet). The resource owner does this by organizing an approval interaction between the resource owner and the HTTP service or allowing third-party application access.

To enable OAuth 2.0

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. Click the **SuiteCloud** subtab.
3. In the **SuiteScript** section, check the following boxes:
 - Client SuiteScript
 - Server SuiteScript
4. In the **Manage Authentication** section, check the **OAuth 2.0** box.
5. Click **Save**.

To create an OAuth role:

1. Go to Setup > Users/Roles > Manage Roles > New.
2. On the **Permission** subtab, click **Setup**.
3. In the **Permission** list, select **OAuth 2.0 Authorized Applications Management**.
4. Click **Add**.
5. Assign this new role to the user you want to access OAuth 2.0.
6. Click **Save**.

To create integration records to use OAuth 2.0

1. Go to Setup > Integration > Integration Management > Manage Integrations > New.
2. Enter an application **Name**.

3. Enter an integration **Description**.
4. In the **State** list, select **Enabled**.
5. (Optional) To enter details about this integration, enter text in the **Note** field.
Text entered in this field is specific to your NetSuite account. If this record is packaged and installed elsewhere, this text is not included.
6. On the **Authentication** subtab, check the following boxes in the OAuth 2.0 section:
 - Authorization Code Grant
 - Scope:
 - RESTlets
 - REST Web Services
7. Enter a **Redirect URI**.
8. Click **Save**.
9. Share the CONSUMER KEY / CLIENT ID (client_id) and CONSUMER SECRET / CLIENT SECRET you're your client.
Save CONSUMER KEY / CLIENT ID (client_id) and CONSUMER SECRET/ CLIENT SECRET. After you save the record, you cannot see it again. If you lose Client Key and Secret, then lease reset and share those with client.

For more information, see the help topic [OAuth 2.0](#).

NetSuite Plugins

The Quality Management SuiteApp can leverage plug-ins to customize behavior that meets your organization's needs. It is important that you are familiar with SuiteScript and have a basic understanding of NetSuite Custom Plug-ins.

To learn more, see the help topic [Core Plug-in Overview](#)

Quality Custom Inspection Rule Plug-in

The Quality Custom Inspection Rule plug-in enables you to evaluate quality inspection data and standards to determine if an inspection should pass or fail. Only use this plug-in when conventional pass rules are insufficient. For example, length greater than or equal to Max_Length.

Requirements

Since the Quality Management SuiteApp uses SuiteScript 2.0, all custom plug-in implementations must also be written in SuiteScript 2.0.

Expected Input/Output

A new implementation of the custom inspection rule must take as input the following:

Field	Action
InspectionObject	A JavaScript object containing inspection information requesting specialized pass/fail assessment: <ul style="list-style-type: none"> ■ type: the inspection type

	<ul style="list-style-type: none"> ■ name: the inspection name ■ txnid: the triggering transaction internal ID ■ itemID: the triggering item internal ID
fieldObject	A JavaScript object containing triggering inspection field information: <ul style="list-style-type: none"> ■ name: the field name ■ value: the field value
otherFieldObjects	An array of JavaScript objects containing additional inspection field information. One entry for every piece of related inspection data collected: <ul style="list-style-type: none"> ■ name: the field name ■ value: the field value
standardObjects	An array of JavaScript objects containing standard fields of the inspection information. One entry for every standard defined: <ul style="list-style-type: none"> ■ name: the field name ■ value: the field value standard adjusted for any item specific settings

Each custom inspection rule must also return a Boolean (true or false):

- **true**: the inspection passed the custom rule
- **false**: the inspection failed the custom rule

Sample Implementation

The Quality Management SuiteApp includes a sample alternate implementation of the Quality Custom Inspection Rule Echo plug-in.

By adding this plug-in to your sandbox account, you will see a full echo of all the inputs that trigger the plug-in. You can review this in the plug-in implementation script execution to ensure you understand the data available to the plug-in.

You can review this implementation for the correct structure of the SuiteScript 2.0 script which can be used as a template. This enables you to concentrate only on the rule-specific logic of your organization. The script code is shown in the Quality Custom Inspection Rule Echo Source section.

Quality Custom Inspection Rule Echo Source

Note: This sample script uses the `define` function, which is required for an entry point script (a script you attach to a script record and deploy). You must use the `require` function if you want to copy the script into the SuiteScript Debugger and test it. For more information, see the help topic [SuiteScript Debugger](#).

This implementation simply echos all inputs to the log to assist new developers and returns true.

```

1 /**
2 * @NApiVersion 2.x
3 * @NScriptType pluginTypeimpl
4 *
5 * ECHO Implementation of Custom Rule Plug-in for Quality Management SuiteApp
6 */
7 define(['N/log'], function(log) {
8     return {
9         inspectionPassed: function(inspectionObj, fieldObj, otherFieldObjs, standardObjs) {
10             // echo inspectionObj
11         }
12     }
13 })

```

```

11     log.debug({
12         title: 'insepctionObj',
13         details: 'type:' + inspectionObj.type +
14             ' name:' + inspectionObj.name +
15             ' txnlId:' + inspectionObj.txnId +
16             ' itemId:' + inspectionObj.itemId
17     });
18
19     //echo fieldObj
20     log.debug({
21         title: 'fieldObj',
22         details: 'name:' + fieldObj.name +
23             ' value:' + fieldObj.value
24     });
25
26     //echo otherFieldObjs
27     for ( var i in otherFieldObjs ) {
28         log.debug({
29             title: 'otherFieldObjs',
30             details: 'name:' + otherFieldObjs[i].name +
31                 ' value:' + otherFieldObjs[i].value
32         });
33     }
34
35     //echo standardObjs
36     for ( var i in standardObjs ) {
37         log.debug({
38             title: 'standardObjs',
39             details: 'name:' + standardObjs[i].name +
40                 ' value:' + standardObjs[i].value
41         });
42     }
43     return true;
44 }
45
46 });

```

Quality Management REST API

The NetSuite Quality SuiteApp exposes REST APIs that enable you to trigger quality management inspections.

Quality Management REST API uses HTTP requests to GET, PUT, POST, and DELETE data. To learn how the NetSuite Quality SuiteApp leverages REST APIs, see the following:

- [GET – qm_rest_queue](#)
- [POST – qm_rest_queue](#)
- [DELETE – qm_rest_queue](#)
- [Scriptable Inspection Triggers](#)

GET – qm_rest_queue

The Quality GET API returns a queue entry, or queue object dump.

Use the GET request to retrieve relevant information about a pending or complete quality inspection that has been queued for tablet data collection.

■ URL

`/app/site/hosting/restlet.nl?script=customscript_qm_rest_queue&deploy=1`

■ Method

GET

■ URL Params

Required:

id=[integer]

■ Success Response

■ Code: 200

Example Content:

```

1   {
2       "message": "Loaded queue record id: 5043",
3       "data": {
4           "status": "Pending",
5           "location": "India",
6           "quantity": 1,
7           "triggerType": "API",
8           "specification": "Color and Quantity check",
9           "priority": "0-Urgent",
10          "assignedTo": "Amruta Kumbhar",
11          "action": "Return To Vendor",
12          "inventoryTransaction": "Item Receipt #42",
13          "transactionLine": 1,
14          "parentTransaction": "Purchase Order #43",
15          "recordStaged": true,
16          "statusId": 1,
17          "locationId": 1,
18          "triggerTypeId": 4,
19          "specificationId": 3,
20          "priorityId": 1,
21          "assignedToId": 3,
22          "actionId": 2,
23          "inventoryTransactionId": 85,
24          "parentTransactionId": 84
25      },
26      "requestParams": {
27          "id": "5043"
28      }
29  }
```

■ Error Response

Most endpoints can fail in many ways. For example, from unauthorized access to wrongful parameters.

Code: 400 BAD REQUEST

Example Content:

```

1   {
2       "error": {
3           "code": "JS_EXCEPTION",
4           "message": "Error: {\\"message\\":\\"Queue record 50431 does not
5           exist.\\"}"
6       }
7   }
```

POST – qm_rest_queue

The Quality Management POST API enables you to create new queue records. Creating a new queue record triggers processing to allow the associated inspections to be performed on the tablet interface.

■ URL

/app/site/hosting/restlet.nl?script=customscript_qm_rest_queue&deploy=1

■ Method

POST

■ Data Params

```

1   {
2     "specificationId": "integer(m)",
3     "itemId": "integer(m)",
4     "locationId": "integer(m)",
5     "quantity": "integer(m)",
6     "assignedToId": "integer",
7     "priorityId": "integer",
8     "inventoryTransactionId": "integer",
9     "transactionLine": "integer",
10    "parentTransactionId": "integer"
11    "actionId": "integer"
12  }

```

■ Success Response

Code: 200

Example Content:

```

1   {
2     "message": "Created queue record id: 662",
3     "data": {
4       "id": 662
5     },
6     "requestBody": {
7       "actionId": 2,
8       "assignedToId": 3,
9       "inventoryTransactionId": 85,
10      "specificationId": 3,
11      "locationId": 1,
12      "quantity": 1,
13      "itemId": 8,
14      "priorityId": 1,
15      "parentTransactionId": 84,
16      "transactionLine": 1
17    }
18  }

```

■ Error Response

□ **Code:** 400 BAD REQUEST

Example Content: Negative quantity error

```

1   {
2     "error": {
3       "code": "JS_EXCEPTION",
4       "message": "Error: Unable to insert queue record: Please
5       provide positive number for quantity"
6     }
7   }

```

□ **Code:** 400 BAD REQUEST

Example Content: Mandatory field error

```

1   {
2     "error": {
3       "code": "JS_EXCEPTION",
4       "message": "Error: {"message": "Missing one of required
5       parameters"}, {"data": {"required": [
6         "specificationId", "locationId", "itemId", "quantity"]}, "request
7       Body": {
8         "specificationId": 3, "locationId": 1, "quantity": 1, "itemId": 8}}
9     }
10   }

```

```

9      }
10 }
```

- **Code:** 400 BAD REQUEST

Example Content: Invalid fields

```

1      {
2         "error": {
3             "code": "JS_EXCEPTION",
4             "message": "Error: You are passing invalid field/s: test"
5         }
6     }
```

DELETE – qm_rest_queue

The Quality Management DELETE API is used to cancel queue records (identified by the Request-URL). You can only use this API to cancel queue records that have been created by the POST API.

■ **URL:**

/app/site/hosting/restlet.nl?script=customscript_qm_rest_queue&deploy=1

■ **Method**

DELETE

■ **URL Params**

Required:

id=[integer]

■ **Success Response:**

- **Code:** 200

Example Content:

```

1      {
2         "message": "Queue record canceled id: 762",
3         "data": 762,
4         "requestParams": {
5             "id": "762"
6         }
7     }
```

□ **Error Response**

- **Code:** 400 BAD REQUEST

Example Content

```

1      {
2         "error": {
3             "code": "JS_EXCEPTION",
4             "message": "Error: {\"message\": \"REST can only modify queue"
5             "records created from REST api\"}"
6         }
7     }
```

Scriptable Inspection Triggers

The NetSuite Quality Management includes a SuiteScript 2.0 module that enables you to initiate predefined inspection activities (specifications) from within SuiteScript 2.0 customizations to NetSuite.

This enhancement enables you to extend inspection capabilities to address your unique market and organizational inspection needs. Exposing this API ensures that implementations are streamlined and have the necessary safeguards to avoid inconsistent inspection data.

Inspection Queue Trigger through Custom API

To trigger the Quality Inspection Queue without a transaction context, select **API** as the **Transaction Type** in the Quality Specification Context. For more information, see [Specification Contexts](#).

For all inspection queues created with the API trigger, the trigger type will be API.

Note: You cannot create a Quality Specification Context for the API trigger through the user interface.

To create an inspection queue outside of Quality Management, you must create custom scripts and call the API from your application.

When you call the API, the parameters are read by the API, and an appropriate inspection queue is created. Then, the partner writes the code and passes the parameters as required.

You can use the code samples as reference. For more information, see [Code Samples](#).

Mandatory Parameters

You must set the following mandatory parameters:

- locationId
- specificationId
- quantity
- itemId

Non-mandatory Parameters

Optionally, you can set the following non-mandatory parameters:

- actionId
- assignedTold
- inventoryTransactionId
- priorityId
- parentTransactionId
- transactionLine

Methods to Execute the REST API Trigger

You can execute the REST API trigger using the following HTTP methods:

- GET – to retrieve a queue.
- POST – to create a queue.
- DELETE – to delete a queue.

To execute the REST API trigger, enter the following statement:

```

1 function getRestletResponse(scriptId, deploymentId, restletMethod, requestBody, urlParams) {
2     try {
3         var urlParameters = {}, headerObj = {};
4         if (urlParams)
5             urlParameters = urlParams;
6         var requestHeader = {
7             'Content-Type': 'application/json'
8         };
9         if (Object.keys(headerObj).length !== 0) {
10             requestHeader = Object.assign(requestHeader, headerObj)
11         }
12         var requestResponse = https.requestRestlet({
13             body: JSON.stringify(requestBody),
14             deploymentId: deploymentId,
15             headers: requestHeader,
16             method: restletMethod,
17             scriptId: scriptId,
18             urlParams: urlParameters
19         });
20         log.debug("Web service response from restlet", requestResponse);
21
22         log.debug(scriptId + ' Response code ', requestResponse.code)
23         var responseCode = requestResponse.code;
24
25         log.debug(scriptId + ' Response body', requestResponse.body);
26         return true;
27     } catch (e) {
28         log.error('Exception occurred ', e)
29         return false;
30     }
31 }

```

Code Samples

The following code samples show how to call the REST API using HTTP methods:

- GET – to retrieve a record based on a unique input such as ID.

```

1 var params = {
2     id: 9521
3 };
4 var response = getRestletResponse('customscript_qm_rest_queue', 'customdeploy_qm_rest_queue', 'GET', '', params);

```

- POST – to create a record by passing required information in the body of the REST API call.

```

1 var data = {
2     "locationId": 101,
3     "specificationId": 322,
4     "quantity": 10,
5     "itemId": 359
6 };
7 getRestletResponse('customscript_qm_rest_queue', 'customdeploy_qm_rest_queue', 'POST', data, '');

```

Quality Management Bundle Integration

NetSuite 2020.2 enables you to use SuiteScript to interact with the Quality Management SuiteApp. These integration types can create and manage inspections on the Quality tablet to be executed in your organization.

Prior integration techniques used RESTlets to enable external applications to perform these actions, however this technique is difficult to develop and maintain. The new SuiteScript based approach enables you to leverage User Events, Suitelets, or Scheduled scripts to interact with the Quality Management

SuiteApp. These methods do not require the additional overhead of authentication or concerns about bundle dependencies when the integration is delivered via the bundle.

Integration Module

To avoid server integration issues and bundle entanglement, an integration module that wraps relevant methods and exposes them for SuiteScript usage is available. The integration module file name is `qm_integration_module.js` and is delivered as part of the SuiteApp to maintain backward compatibility in future releases.

Usage Overview

The Quality Management Integration Module requires the following steps within the SuiteScript being developed:

1. Confirm the presence of the Quality Management SuiteApp by attempting to locate the module.
2. Dynamically load the module to expose its methods for interacting with Quality Management.
3. Implement the customer-specific logic for managing unique inspections and their triggers.
4. Use the appropriate module methods to review Quality Context records that can be used to let the customer control when the custom trigger is to fire.
5. Use the appropriate module methods to create, find, update, or delete new inspection requests for the tablet (called Quality Inspection Queue records).

Method Descriptions

`transactionTriggerListId`

The `{triggerTransaction: text //trigger type}` method retrieves the internal trigger id defined in the Quality Trigger Type custom list. A trigger type could be a work Order Completion, Receipt From Purchase Order, etc.)

`getContextSetByFilter`

The optional `getContextSetByFilter` method returns all the specification contexts defined for an assembly or item.

The following JSON object is the input to the method:

```

1 [ 
2   vendor: null,workCenter: number, //internal id of the work center
3   item: number, //internal id of the item           //internal id of the item
4   contextType: number, //internal id of transactionTriggerList as
5   obtained from transactionTriggerListId
6   location: number,      //internal id of the work order location
7   isInactive: 'F'
8 ];

```

`insertInspectionQueueRecord`

The `insertInspectionQueueRecord` method inserts a new record for the Quality Management tablet (into the quality inspection queue custom record).

The following JSON object is the input to the method:

```

1 {
2
3 specificationContext: object //a specification context object obtained from getContextSetByFilter
4 transaction: number,           //internal id of work order/Purchase Order/Sales Order
5 transactionLine: number,      //internal id of newly created AM Production Result record
6 location: number,            //internal id of work order location
7 quantity: number,             //quantity built
8 transactionType: number,     //internal id of transactionTriggerList as obtained from transactionTriggerListId
9 operation: integer,          //WIP work order operation number
10
11 inventoryTransaction: number //internalId of an inventory transaction if already performed
12
13 inventoryReference: number,  //internal id of newly created AM production result record
14
15 isLastOperation: boolean    //For a WIP work order, if it is the last operation true, otherwise false
16
17 };

```

updateInspectionQueueRecordByTransaction

This optional method can be called to update the quality inspection queue for changes associated with the business process being modeled. For example, a change in the quantity of items to be inspected.

The following JSON object is the input to the method:

```

1 {
2 item: number,           //internal id of assembly item,
3 transaction: number,   //internal id of work order/Purchase Order/Sales Order
4 transactionLine: number, //internal id of edited record in AM Production Result record
5 location: number,       //internal id of work order location
6 quantity: number,        //quantity built
7 operation: integer,      //WIP work order operation number
8
9 inventoryTransaction: number //internalId of an inventory transaction if already performed
10 inventoryReference: number //internal id of edited AM production result record
11 };

```

updateInspectionQueueRecordForDeletion

If the business process being modeled calls for the cancellation of the inspection the corresponding quality management inspection queue record must be updated. The updateInspectionQueueRecordForDeletion method is used to accomplish that. The method has the effect of changing the status value to cancelled and the quantity to zero.

The following JSON object is the input to the method:

```

1 {
2 location: number, //internal id of work order location
3 transaction: number //internal id of AM Production Result record that was deleted.
4 }

```

executeScheduledScript

({transaction: number //internal id of AM Production Result record created/edited})

Following a scheduled script must be run to complete the processing of the data for Quality tablet display. This is accomplished by calling the executeScheduledScript method which takes no inputs.

Usage Example

The following is a example of a User Event (UE) script that integrates the Advanced Manufacturing production result record with Quality Management. The script, once deployed against the Advanced Manufacturing Production record eses each of the module methods in order to create and manage tablet inspections when results are reported from the Advanced Manufacturing tablet.

Quality Management User Guide

A quality management process is defined by its inspections and specifications. NetSuite defines a quality specification as a collection of related inspections. These inspections and specifications determine the level of quality measured against shop floor processes and incoming and outgoing shipments. For example, did the finished product pass the pH level test, were the correct number of items shipped to the customer, or were the items received in good condition?

As your standards and requirements change, use the NetSuite Quality Management SuiteApp to update existing, or create new, inspections and specifications. The copy existing feature enables you to create new inspections and specifications from existing, similar inspections and specifications, reducing the time and effort spent on ongoing maintenance.

For more information, see [Copying a Quality Inspection](#).

The Quality Management User Guide displays the following topics:

- [Quality Management Glossary](#)
- [Quality Management Best Practices](#)
- [Quality Inspections](#)
- [Quality Specifications](#)
- [Quality Management Triggers](#)
- [On-Demand Quality Inspection Queues](#)
- [Quality Management Saved Searches](#)
- [Quality Management Workflows](#)
- [Store Quality Management Images](#)
- [Resetting Transaction Count](#)
- [Certificate of Analysis \(COA\)](#)
- [Derived Fields](#)
- [Configure Quality Management Preferences](#)
- [Quality Management Mobile Data Collection](#)
- [Quality Management Reports](#)

Quality Management Glossary

The following table defines the terms used in NetSuite to support the Quality Management SuiteApp.

Term	Definition
Certificate of Analysis (COA)	Quality Assurance issues a COA document to confirm that a regulated item meets its quality specifications. A COA includes the inspection results from the quality control tests for an individual item batch or lot.
Detail Frequency	The number of lot controlled or serialized item inspections.
Inspection	Examination of a product layout, product, process, or installation to determine how well it matches specific standards or requirements.
Item Inspection Standards	The Item Inspection Standards subtab displays the quality specification criteria that this inspection must conform to.

Item Quality Compliance	Item quality compliance reports can help your organization identify and avoid item quality problems. For example, wrong items received, poor or substandard item quality, or item damage.
Parent Transaction	The parent transaction, purchase order, or work order triggers the inspection.
Qualitative	Measure or test item characteristics against defined standards or requirements to confirm compliance.
Quantitative	Determine that the correct quantity of items is received in good condition. The result is a pass or fail.
Quality Administrator	The quality administrator oversees the initial implementation of the NetSuite Quality application and manages the ongoing administration of the application.
Quality Engineer	The quality engineer executes quality inspections in a timely manner with correct prioritization, ensures daily adherence to quality processes, and escalates identified quality non-conformance.
Quality Inspection	Inspections are performed by specialized personnel who check, measure, or test one or more product characteristics against predefined requirements to confirm compliance. Products that do not comply with the specifications are rejected or returned.
Quality Management	Focuses on product and service quality and how it is achieved. The main components of quality management are planning, quality assurance, quality control, and quality improvement. The goal is to ensure consistency within the organization, product, or service.
Quality Manager	The quality manager aligns quality practices with company and industry policies, and assigns and monitors quality personnel to address inspection needs and priorities. The quality manager also ensures adherence to quality processes and provides actionable data to other operations managers to facilitate continuous improvement.
Quality Specification	Describes the requirements a product should conform to. Well-defined specifications ensure that the correct specification is applied to an inspection.
Return Merchandise Authorization (RMA)	Part of the return process for a product to receive a refund, replacement, or repair during the product's warranty period.
Routing Records	A manufacturing routing is a template that contains the list of steps required to build an assembly item.
Sampling Profile	Defines the inspection sample size and its allowable characteristics.
Sampling Rate	The number of inspection sample records to create relative to the number of lots transacted.
Skip Lot Sampling	A skip lot sampling plan only inspects a fraction of the submitted lots.
Triggering Transaction	The NetSuite transaction, item receipt, work order build, or work order completion that matches a specification context. For example, item receipt (#47) initiates the inspection.
Vendor Quality Compliance	Vendor quality compliance reports can help your organization identify and avoid vendor problems. For example, wrong items received, incorrect labels, late deliveries, or incorrect item price.

Quality Management Best Practices

To take full advantage of the Quality Management SuiteApp, you should follow the suggested best practices.

The following sections highlight best practices for specific features:

- Quality Inspections
- Quality Specifications
- Ad Hoc Inspection Queues
- Quality Management Saved Searches and Workflows
- Certificate of Analysis (COA)
- Derived Field Plug-in Implementation
- Quality Management Tablet Interface

Quality Inspections

- For [Creating a Data Field](#):
 - **Limitation** – You can only create up to 40 data fields per inspection.
 - **Optimal practice** – You should create 30 data fields per inspection.

For more information, see [Quality Inspections](#).

- By default, an inspection with simple sampling includes the **Defect Count** and **Samples Inspected** inspection data fields.

To have your own summary fields for sampling inspection, you must complete one of the following:

- [Inactivating Default Data Fields for an Individual Inspection](#)
- [Inactivating Default Data Fields for All Inspections](#)

- Make sure you only mark an inspection as **Is Inactive** if you do not want it to be processed.

You should not perform data collection or evaluations against the inactive inspection. You also cannot modify or select the inactive inspection as part of a new specification. For more information, see [Assigning a Quality Inspection to a Specification](#).

- For [Quality Inspection Sampling for CSV](#):

- **Sample Row Threshold for CSV** – The default value is 25.

To configure the threshold sample row count to enable the CSV upload option for sample data, complete [Configuring Sample Row Threshold for CSV](#).

- **Optimal practice** – You should create the following:

- 30 data fields per sample for CSV upload
- 500 maximum sample rows for CSV upload

Quality Specifications

- For [Creating a Quality Inspection](#):
 - **Limitation** – You can only create up to 35 inspections per specification.
 - **Optimal practice** – You should create 20 inspections per specification.
- Make sure you only mark a specification as **Is Inactive** if you do not want it to be processed.

You cannot modify or select the inactive specification for a new context definition. For more information, see [Adding a Specification Conformance Rule](#).

- When [Creating a Specification Context](#), you should only select **Production Result** as the **Transaction Type** if you report data through Advanced Manufacturing.

Ad Hoc Inspection Queues

- Make sure you manually create [Ad Hoc Inspection Queues](#) to trigger ad hoc inspections.
- To trigger inspection queue generation for inventory transactions with reference to relevant NetSuite parent transactions, complete [Creating an Ad Hoc Inspection Queue With a Transaction Reference](#).
- If you want to inspect an item available in inventory from a specific bin or inventory status, complete [Creating an Ad Hoc Inspection Queue Without a Transaction Reference](#).

Quality Management Saved Searches and Workflows

- [Quality Management Saved Searches](#) and [Quality Management Workflows](#) are automated in your account. Some saved searches and workflows require action before you can use them.
Make sure you review the respective topics and configure the necessary steps.
- Quality Management saved searches and workflows are not integrated with ad hoc inspection queues with a parent transaction reference.
- You can only implement either the Receipt Quarantines or Enhanced Receipt Quarantines workflow at any specific time.
For more information, see the following topics:
 - [Receipt Quarantines Workflows](#)
 - [Enhanced Receipt Quarantines Workflow](#)
- To configure the Enhanced Receipt Quarantines workflow properly, you must assign the same **Pre-Inspection Bin** for the **Fail**, **After Data Creation**, and **Pass** states.
For more information, see [Configuring the Enhanced Receipt Quarantines Workflow](#).

Certificate of Analysis (COA)

If you attach a COA data field to an inspection, ensure you report all lots during inspection because the system ignores skip lot functionality. For more information, see the following topics:

- [Creating a Quality Inspection](#)
- [Defining a Certificate of Analysis \(COA\) Field](#)

Derived Field Plug-in Implementation

- You should only use the [Derived Field Plug-in Implementation](#) if you have JavaScript knowledge and experience.
- You should configure the appropriate recipients to receive an email notification if your plug-in implementation fails.

For more information, see [Configuring Email Recipients for a Derived Field Plug-in Implementation Failure](#).

Quality Management Tablet Interface

- For [Quality Management Mobile Data Collection](#), a network speed of 25 MB/s lets you upload an image size up to 7MB.
- You must manually input data field values during inspection.
- You cannot customize the tablet header.

Quality Inspections

Quality inspections define data fields and associated standards to examine, measure, compare, or test product material or characteristics. This section describes how your Administrator can set up quality inspections.

Inspection queues generate based on an inventory transaction. To ensure that the system conducts appropriate validations and eliminates data inconsistency, relevant lot numbers assigned to an inventory transaction display during a quality inspection.



Note: When an inspection is marked as **Is Inactive**, it cannot be processed and no data collection or evaluations should be performed against it.

Creating Quality Inspections

For more information about quality inspections, see the following topics:

- [Configure Quality Inspections](#)
- [Data Fields](#)
- [Inspection Standards](#)
- [Pass Fail Criteria](#)
- [Pass Fail Plug-in](#)

Configure Quality Inspections

To configure quality inspections, see the following topics:

- [Creating a Quality Inspection](#)
- [Viewing a Quality Inspection](#)
- [Copying a Quality Inspection](#)

Creating a Quality Inspection

Follow this procedure to create a quality inspection.

Copying Quality Inspections

To create a quality inspection:

1. Go to Quality > Inspections > Quality Inspection > New.
2. In the **Name** field, enter a unique and descriptive inspection.
For example, pH test.
3. Enter an inspection **Description**.
This information appears in the tablet to help the quality engineer understand the goal of the inspection.
4. Select an inspection **Type**:
 - **New** – to create a new quality inspection type.
In the Quality Inspection Type page, enter a **Name** for the inspection type and click **Save**.
 - **Qualitative** – to verify whether the received item is in good condition or if the appropriate certificates are in place.

- **Quantitative** – to define multiple measurable elements and acceptance criteria.

For example, diameter, width, temperature, or chemical composition.

- To define how the inspection is performed, select an **Inspection Method**.

For example, visual inspection, scale, or caliper. You can create this inspection method list in advance or add new entries as you need them.

- To make the inspection inactive but not delete it, check the **Inactive** box.

- To specify the number of inspections created for each transaction, enter a **Detail Frequency (Lot)**.

The following table describes the outcomes you encounter when you set a specific **Detail Frequency (Lot)** value:

Detail Frequency (Lot) Value	Outcome
Blank or Null	Creates one inspection for the received item.
0	Creates one inspection for each lot or serial number in the received item's inventory detail. This ensures no lots or serial numbers are skipped.
1	Skip every other lot or serial number. An inspection is created for every other lot or serial number (1, 3, 5, and so on).
2	Skip two lots or serial numbers between inspections. An inspection is created for every third lot or serial number (1, 4, 7, and so on).

Skip lot frequency continues as you enter higher numbers (3, 4, and so on).



Note: If you attach a Certificate of Analysis (COA) data field to an inspection, the system ignores skip lot functionality. You must report all lots during inspection.

For more information, see [Defining a Certificate of Analysis \(COA\) Field](#).

- Select a **Sampling Requirement**:

- **New** – to create a new quality sampling requirement.

- **Simple Sampling** – to use a fixed number/percentage to determine how many samples to take.

This option displays the **Sampling Rate** and **Allowable Failures** fields where you can define the inspection parameters.



Note: By default, an inspection with simple sampling includes the **Defect Count** and **Samples Inspected** inspection data fields. To have your own summary fields for sampling inspection, you must mark the two default inspection data fields as inactive and manually create the summary fields.

If no summary fields are recorded during sampling inspection, the inspection is marked as pass.

For more information, see [Inactivating Default Data Fields for an Individual Inspection](#) and [Inactivating Default Data Fields for All Inspections](#).

- **No Sampling Required** – to not require samples.

- If the inspection requires sampling, define the inspection parameters.

- a. Enter a **Sampling Rate**.

This represents the number of inspection sample records created for each lot.

- Leave the field empty (blank or null) or enter 0 if no samples are required.
- Enter a number or a percentage to represent the sample records for each received item.
For example, enter 3 to take samples from 3 items. Enter 10% to sample at least 10% of the item quantity.

- b. In the **Allowable Failures** field, enter a number or a percentage of samples that can fail before an inspection failure is triggered.

For example, enter 3 to set the allowable failures to 3 samples. Enter 10% to set the allowable failures to 10% of samples.



Note: For a percentage value, ensure that you enter a number followed by the percent sign (%).

- c. To use the Quality Management tablet interface to collect sample data, check the **Collect Sample Data** box.

10. Click **Save**.

To better complete the inspection, assign data fields (the data to be collected), standard fields (preset values to compare to collected data), and rules that establish the relation between them.

For more information about creating a quality inspection data field, see [Data Fields](#).

Viewing a Quality Inspection

Follow this procedure to view a quality inspection.

To view a quality inspection:

1. Go to Quality > Inspections > Quality Inspection.

At any time, you can select **Default** from the **View** list to display a list of all available inspections.

2. From the **View** list, select **Quality Inspections Menu**.

3. In the **Filters** list, select an **Inspection Type**.

4. Select an **Inspection Method**.

5. Select a **Sampling Requirement**.

6. To include inactive inspection records in your search, check the **Show Inactives** box.

7. In the Quality Inspection List, select one of the following options beside your preferred inspection:

- a. **Edit** – to make any necessary changes to the quality inspection.

- b. **View** – to view details about the quality inspection.

You can reuse existing inspection data to create a new inspection. For more information, see [Copying a Quality Inspection](#).

8. Click **Save**.

Copying a Quality Inspection

The copy inspection feature offers a convenient way to reuse existing, similar, or related quality inspection and specification data to create a new inspection. This helps to reduce time and effort spent on ongoing maintenance.

The following video describes how to copy and view quality inspections:



[Copying and Viewing Quality Inspections](#)

To copy a quality inspection:

1. Go to Quality > Inspections > Quality Inspection.
2. Beside the inspection you want to copy, click **View**.
3. In the **Actions** list, select **Make Copy**.
4. Enter a new inspection **Name**.
5. Make any necessary changes.
6. Click **Save**.

The inspection copy is available in the Quality Inspection List.

Data Fields

Quality inspection data fields enable you to define the types of data to collect during an inspection. You can add multiple data fields as multiple types. For example, boolean, integer, or float. The order of data fields within the inspection are shown in the same order on the mobile interface.

To describe the inspection, assign data fields (data to be collected), standard fields (values to compare to data), and rules that establish the relationship.

Quality Management supports 40 data fields per inspection.

i Note: By default, an inspection with simple sampling includes the **Defect Count** and **Samples Inspected** inspection data fields. To have your own summary fields for sampling inspection, you must mark the two default inspection data fields as inactive and manually create the summary fields.

If no summary fields are recorded during sampling inspection, the inspection is marked as pass.

For more information, see [Inactivating Default Data Fields for an Individual Inspection](#) and [Inactivating Default Data Fields for All Inspections](#).

For more information about data fields, see the following topics:

- [Creating a Data Field](#)
- [Editing a Data Field](#)
- [Inactivating Default Data Fields for an Individual Inspection](#)
- [Inactivating Default Data Fields for All Inspections](#)

Creating a Data Field

Follow this procedure to create a data field for a quality inspection.

To create a data field:

1. To define a new data field for the inspection, go to Quality > Inspections > Quality Inspection.
2. Beside the inspection you want to create a data field for, click **Edit**.

3. In the **Data Fields** subtab, click **New Inspection Data Field**.

The Inspection Data Field form displays the name of the inspection you are creating this data field for.

4. In the **Sequence** field, enter a number to define the order in which inspection data will be collected.

5. Select a **Data Field Name** to label data collected during this inspection.

The **Data Type** field displays the data type associated to match against applicable data fields.

- a. (Optional) If you create a new **Data Field Name**, in the Quality Inspection Fields List form, complete the following fields:

- i. Enter a unique **Name**.

- ii. Select a **Data Type** to match the selected data fields:

- **Text** – stores any kind of text data.
- **Integer** – the most common numeric data type used to store numbers without a fractional component.
- **Decimal** – provides an exact numeric in which the precision and scale can be arbitrarily sized.
- **Date** – stores a date in the YYYY-MM-DD format.
- **DateTime** – stores a value containing both date and time together in the YYYY-MM-DD hh:mm:ss format.
- **Boolean** – represents the values true and false. It can also be represented as 0 (for false) and 1 (for true).
- **Image** – store or refers to any type of image file. For example, jpg, bmp, or .png.
- **Select** – represents a predefined list of string values that you can select from during data entry.
- **URL** – captures an external URL for later navigation.

- iii. Click **Save**.

6. Enter any work **Instructions** you want to display on the data collection form as help text.

7. To make the inspection inactive but not deleted, check the **Inactive** box.

8. Click **Save**.

Editing a Data Field

Follow this procedure to edit a data field for a quality inspection.

To edit a data field:

1. In the **Data Fields** subtab, select a data field **View**:

- **Default View** – displays the **Validation Tag** for the field. It does not display inspection data for samples.
- **Inspection Data Fields** – displays detailed inspection data that can be captured for each sample.

2. Select an **Inspection Data Field** value.

3. Beside the inspection field you want to update, click **Edit**.

4. Make the necessary changes.

5. Click **Save**.

Inactivating Default Data Fields for an Individual Inspection

By default, an inspection with simple sampling includes the **Defect Count** and **Samples Inspected** inspection data fields. To have your own summary fields for sampling inspection, you must mark the two default inspection data fields as inactive and manually create the summary fields.

If no summary fields are recorded during sampling inspection, the inspection is marked as pass.

Follow this procedure to deactivate default inspection data fields for an individual inspection.

To deactivate default data fields for all inspections attached, see [Inactivating Default Data Fields for All Inspections](#).

To deactivate default data fields for an individual inspection:

1. In the **Data Fields** subtab, from the **View** list, select **Inspection Data Fields**.
2. Beside the **Defect Count** field, click **Edit**.
3. Check the **Inactive** box.
4. Click **Save**.
5. Beside the **Samples Inspected** field, click **Edit**.
6. Check the **Inactive** box.
7. Click **Save**.

Inactivating Default Data Fields for All Inspections

Follow this procedure to deactivate default data fields for all inspections attached. You must first create a custom saved search for default inspection data fields. Then, you can deactivate each required data field record.

To deactivate default data fields for an individual inspection, [Inactivating Default Data Fields for an Individual Inspection](#).

To deactivate default data fields for all inspections:

1. Go to Lists > Search > Saved Searches > New.
2. In the New Saved Search page, click **Inspection Data Field**.
3. Enter a unique **Search Title** for your custom saved search.
4. In the **Criteria** subtab, under the **Standard** subtab, select **Field Name** from the **Filter** list.
5. In the Saved Inspection Data Field Search window, from the **Field Name** list, select **any of**.
6. Press Ctrl and select **Defect Count** and **Samples Inspected**.
7. Click **Set**.
- The **Description** for **Field Name** updates.
8. Click the **Results** subtab.
9. Under the **Columns** subtab, from the **Field** list, select **Inactive**.
10. Click **Add**.
11. Click **Save**.
12. Go to Lists > Search > Saved Searches.

13. Beside the **Title** of your custom saved search, click **View**.
On the Custom Inspection Data Field Search: Results page, the **Inactive** column displays whether a field is active or inactive.
14. Beside the data field record you need to deactivate, click **Edit**.
15. Check the **Inactive** box.
16. Click **Save**.
17. Repeat steps 14–16 for each required data field record you need to deactivate.

Inspection Standards

Inspections standards provide guidelines for inspectors to follow while performing inspections. These standards help establish inspection pass or fail criteria. Inspection standards can represent organizational or industry standards that define acceptable production measurements or values. They relate to data fields through inspection rules.

For more information about inspection standards, see the following topics:

- [Creating an Inspection Standard](#)
- [Editing an Inspection Standard](#)

Creating an Inspection Standard

Follow this procedure to create an inspection standard for your quality inspection.

To create an inspection standard:

1. Go to Quality > Inspections > Quality Inspection.
2. Beside the inspection you want to create a quality inspection standard for, click **Edit**.
3. In the **Inspection Standards** subtab, click **New Inspection Standard**.
The Inspection Standard form displays the name of the inspection you are creating this data field for.
4. Select or add a unique **Standard Field** to refer to when creating inspection rules.
This field is used during inspection rule setup.
The **Data Type** field displays the data type associated to match against applicable data fields.
5. Enter an inspection standard **Default Value**.
This field represents the default inspection standard values created for specific items.
6. To make the inspection inactive but not deleted, check the **Inactive** box.
7. Click **Save**.

Editing an Inspection Standard

Follow this procedure to edit an inspection standard for your quality inspection.

To edit an inspection standard:

1. In the **Inspection Standards** subtab, beside the standard field you want to update, click **Edit**.
2. Make the necessary changes.

3. Click **Save**.

Pass Fail Criteria

Pass fail criteria are expressions that relate data to an inspection pass or fail standard. Rules can be defined for true/false, integer, Boolean, and float data types using mathematical evaluations. For example, >, <, !=, or =.

For more information about configuring pass fail criteria, see the following topics:

- [Creating a Pass Fail Criteria](#)
- [Viewing a Pass Fail Criteria Status](#)
- [Pass Fail Conformance Checks](#)
- [Pass Fail Conformance Checks Examples](#)

Creating a Pass Fail Criteria

Follow this procedure to create a pass fail criteria for your quality inspection.

To create a pass fail criteria:

1. Go to Quality > Inspections > Quality Inspection.
2. Beside the inspection you want to create a rule for, click **Edit**.
3. In the **Pass Fail Criteria** subtab, click **New Inspection Pass Rule**.
The Inspection Pass Rule form displays the name of the inspection you are creating this rule for.
4. Enter a **Sequence** number to specify the order in which this rule is evaluated.
5. Enter a unique and descriptive rule **Name**.
6. Select a **Rule Type** to define how the rule is evaluated.
 - **New** – to create a new rule type.
 - **Standard** – to initiate pass or fail evaluations using the standard Inspection Pass Rule criteria.
 - **Custom** – to receive a pass or fail status in place of the standard Inspection Pass Rule criteria.
The pass or fail status updates based on a custom plug-in code.



Note: If you select **Custom**, to trigger the custom plug-in, you must create a plug-in implementation and enable the plug-in. For more information, see [Pass Fail Plug-in](#).

7. Select a previously defined **Inspection Field** to evaluate using this standard rule.
For example, height, defect count, or image.
8. Select a comparison **Criteria** to help evaluate this inspection.
For example, equals, greater than, or is true.
9. Select a **Standard Field** to evaluate the inspection results using this rule.
10. Click **Save**.

Viewing a Pass Fail Criteria Status

Follow this procedure to the view a pass fail criteria status.

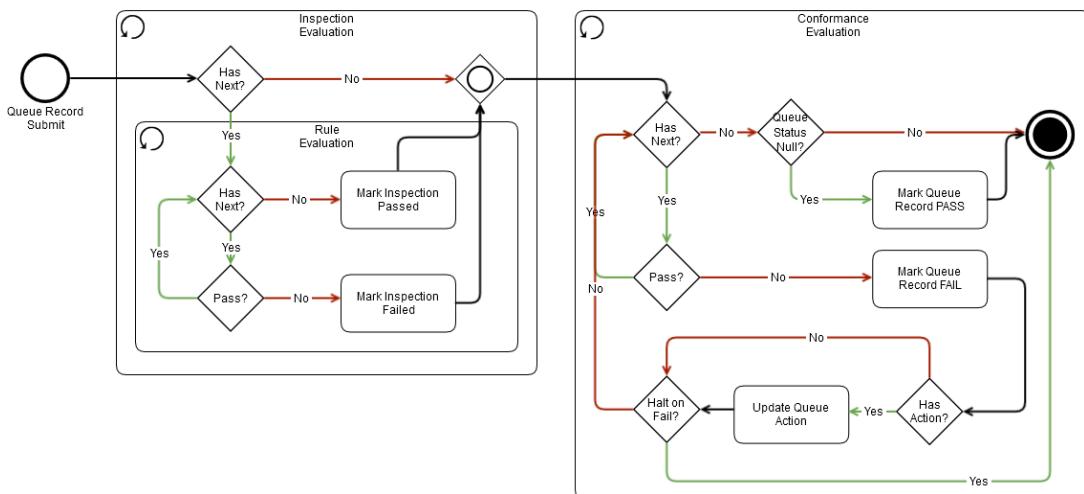
To view a pass fail criteria status:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. Beside **Quality Data** or **Quality Data Detail**, click **List**.
 - If you select **Quality Data**, the **Status** column displays the pass or fail status.
 - If you select **Quality Data Detail**, the **Result Status** column displays the pass or fail status.

Pass Fail Conformance Checks

The Quality Management SuiteApp enables you to perform pass fail conformance checks. The following diagram shows the stages associated with pass or fail evaluations:

- Inspection evaluations
- Conformance (specification) evaluations



For more information, see [Pass Fail Conformance Checks Examples](#).

Pass Fail Conformance Checks Examples

The following pass fail conformance checks examples use specifications with at least two inspections, and each inspection has a conformance rule set up:

- All Halt on Failures
- No Halt on Failures
- Halt on Failure

All Halt on Failures

Inspection	Action	Halt on Failure
Inspection 1	Email	True
Inspection 2	Return	True

Queue Status

No inspections fail:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Pass	Pass	—
Action	—	—	—
Status	—	—	Pass

The first inspection fails:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Fail	Pass	—
Action	Email	—	Email
Status	Fail	—	Fail

The second inspection fails:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Pass	Fail	—
Action	—	Return	Return
Status	—	Fail	Fail

Both inspections fail:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Fail	Fail	—
Action	Email	—	Email
Status	Fail	—	Fail

No Halt on Failures

Inspection	Action	Halt on Failure
Inspection 1	Email	False
Inspection 2	Return	False

Queue Status

No inspections fail:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Pass	Pass	—
Action	—	—	—

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Status	—	—	Pass
Conformance Numbers	Inspection 1	Inspection 2	Final Queue State

First inspection fails:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Fail	Pass	—
Action	Email	—	Email
Status	Fail	—	Fail

Second inspection fails:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Pass	Fail	—
Action	—	Return	Return
Status	—	Fail	Fail

Both inspections fail:

Conformance Numbers	Inspection 1	Inspection 2	Final Queue State
Inspection Status	Fail	Fail	—
Action	Email	Return	Return
Status	Fail	Fail	Fail

Halt on Failure

The following examples use specifications with at least two inspections and two conformance rules:

- [Example 1](#)
- [Example 2](#)
- [Example 3](#)
- [Example 4](#)

Example 1

Inspection	Halt on Failure?
Inspection 1	Yes
Inspection 2	Yes

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue record set to Failed. Action updated. Process terminates.	—
Inspection 2	Pass	Not evaluated.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue record set to Failed. Action updated. Process terminates.	—
Inspection 2	Fail	Not evaluated.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Queue record set to Passed. Script continues.	—
Inspection 2	Fail	Queue record set to Failed. Action updated.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Pass	Queue record set to Passed.	Passed.

Example 2

Inspection	Halt on Failure?
Inspection 1	No
Inspection 2	Yes

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script continues.	—
Inspection 2	Pass	No update.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script continues.	—
Inspection 2	Fail	Queue Record set to Failed. Action updated.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Fail	Queue Record set to Failed. Action updated.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Pass	Queue Record set to Passed.	Passed.

Example 3

Inspection	Halt on Failure?
Inspection 1	Yes
Inspection 2	No

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script terminates.	—
Inspection 2	Pass	Not evaluated.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script terminates.	—
Inspection 2	Fail	Not evaluated.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Fail	Queue Record set to Failed.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Pass	Queue Record set to Passed.	Passed.

Example 4

Inspection	Halt on Failure?
Inspection 1	No
Inspection 2	No

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script continues.	—
Inspection 2	Pass	No update.	Failed (rule #1 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Fail	Queue Record set to Failed. Action updated. Script continues.	—
Inspection 2	Fail	Queue Record set to Failed. Action updated.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Fail	Queue Record set to Failed. Action updated.	Failed (rule #2 action embedded).

Inspection	Result	Script	Queue Record Status
Inspection 1	Pass	Script continues.	—
Inspection 2	Pass	Queue Record set to Passed.	Passed.

Pass Fail Plug-in

If you define the **Rule Type** of your inspection as **Custom**, you must trigger the custom Pass Fail Plug-in. To trigger the Pass Fail Plug-in, you must create a plug-in implementation and enable the plug-in. You can then view the execution log for the inspection.

For more information about triggering the Pass Fail Plug-in, see the following topics:

- [Creating a Pass Fail Plug-in Implementation](#)
- [Enabling a Pass Fail Plug-in](#)
- [Viewing the Inspection Execution Log](#)

Creating a Pass Fail Plug-in Implementation

Follow this procedure to create a Pass Fail Plug-in implementation.

To create a Pass Fail Plug-in implementation:

1. Go to Customization > Plug-Ins > Plug-in Implementations > New.
2. In the Upload Plug-in Implementation page, click the double arrow and click **List**.
3. Select the **Script File** for the custom plug-in you created.
4. Click **Create Plug-in Implementation**.
5. In the Select Plug-in Type page, select **Quality Custom Inspection Rule**.
6. In the Plug-In Implementation page, enter a plug-in **Name**.

For example, Pass Fail Plug-in.

7. Enter a custom internal **ID**.

If this field is left blank, the system generates a script ID.

Regardless of whether the ID is custom or system-generated, after the plug-in implementation saves, the system automatically adds the prefix **customscript** to the ID.

8. Set the **Status** of the custom plug-in to **Released**.
 9. Select a **Log Level**:
- **Debug** – For scripts in testing mode. Selecting this level shows all **Debug**, **Audit**, **Error**, and **Emergency** information in the script log.

The default selection is **Debug**.

- **Audit** – For scripts running in production mode. Selecting this level provides a record of events that have occurred during the processing of the script.
For example, A request was made to an external site.
 - **Error** – For scripts running in production mode. Selecting this level shows only unexpected script errors in the script log.
 - **Emergency** – For scripts running in production mode. Selecting this level shows only the most critical errors in the script log.
10. Enter a plug-in implementation **Description**.
 11. Select an **Owner** for the plug-in implementation.
By default, the **Owner** is set as the user logged in during the creation of the plug-in implementation.
After the system creates the plug-in implementation, only the owner of the script can modify it.
 12. To deactivate the current script or plug-in implementation, check the **Inactive** box.



Note: When a script is set to **Inactive**, all associated deployments of the script are also inactive. To deactivate a specific deployment rather than all deployments of this script, go to the Script Deployments page.

13. Click **Save**.

Next, complete [Enabling a Pass Fail Plug-in](#).

Enabling a Pass Fail Plug-in

Follow this procedure to enable a Pass Fail Plug-in. Before you perform this procedure, complete [Creating a Pass Fail Plug-in Implementation](#).

To enable a Pass Fail Plug-in:

1. Go to Customization > Plug-ins > Manage Plug-ins.
2. On the Manage Plug-in Implementations page, in the **Active Plug-In** field, select the name of the plug-in you created to trigger the custom rule type.
For example, Pass Fail Plug-in.
3. Click **Save**.

Next, complete [Viewing the Inspection Execution Log](#).

Viewing the Inspection Execution Log

Follow this procedure to view the inspection execution log. Before you perform this procedure, complete [Enabling a Pass Fail Plug-in](#).

To view the inspection execution log:

1. Go to Customization > Scripting > Scripts.
2. Beside **QM Evaluate Inspection Result Values**, click **View**.
3. To view your execution logs, click the **Execution Log** subtab.

Quality Specifications

Quality specifications group related inspections that define inspection scenarios and enable inspections to be refined in relation to specific items. For example, default values or standards. Specifications provide the foundation for capturing quality data, creating reports, improving workflows, and identifying non-conformance.

A good quality specification formalizes a company's inventory and process standards, and define non-conformance rules and the applicable business processes they should trigger. For example, quarantine, return merchandise authorization (RMA), or downgrade.

Quality Management supports 35 inspections per specification.

 **Note:** When an inspection is marked as **Is Inactive**, it cannot be processed as part of a new triggering and no data collection or evaluations should be performed against it.

Creating Quality Specifications

For more information about quality specifications, see the following topics:

- [Configure Quality Specifications](#)
- [Specification Contexts](#)

Configure Quality Specifications

To configure quality specifications, see the following topics:

- [Creating a Quality Specification](#)
- [Assigning a Quality Inspection to a Specification](#)
- [Creating an Item Inspection Standard](#)
- [Viewing a Quality Specification](#)
- [Reviewing a Specification Context Record](#)
- [Adding a Specification Conformance Rule](#)

Creating a Quality Specification

Follow this procedure to create a quality specification.

To create a quality specification:

1. Go to Quality > Specifications > New.
2. To identify a group of inspections, enter a unique and descriptive **Specification Name**.
For example, Ingredient Receiving Inspection or Circuit Board Inspection.
3. Enter a more complete **Specification Description**.
This information helps the quality engineer understand the inspection goal. It is also available for reporting.
4. Click **Save**.

Assigning a Quality Inspection to a Specification

Follow this procedure to assign a quality inspection to a specification.

To assign a quality inspection to a specification:

1. To assign an inspection to this specification, in the **Inspections** subtab, click **Add Inspection**.



Note: When a specification is marked as **Is Inactive**, it cannot be modified or selected for a new context definition.

2. Enter a **Sequence** number.

This order is applied when an inspection result is validated.

For example, step 1, 3, or 8.

3. Select the **Inspection** name to assign to this specification record.

Alternatively, you can click **New** to add a new inspection.



Note: When an inspection is marked as **Is Inactive**, it cannot be modified or selected as part of a new specification.

NetSuite populates the **Inspection Method** field from the selected inspection. For more information, see [Quality Inspections](#).

4. Click **Save**.

The **Detail Frequency (Skip Lot)** and **Sample Rate** set for the inspection are displayed. For more information, see [Quality Inspections](#).

In the **Data Fields** subtab, the data fields created in the quality inspection are also displayed. For more information, see [Data Fields](#).

Creating an Item Inspection Standard

Follow this procedure to create an item inspection standard.

To create an item inspection standard:

1. In the Quality Specification Form, in the **Inspections** subtab, click **Edit** beside the specification you want to view.
2. Click the **Item Inspection Standards** subtab.
3. Click the **New Item Standard Field**.
4. Select an **Item** record to associate with the standard.
5. Select the **Standard Field** to apply to the item and inspection.
6. Select a **Data Type** to associate with the standard.
For example, Text, Boolean, or Image.
For more information, see [Data Fields](#).
7. In the **Standard Value** field, enter a pass or fail benchmark.
 - Boolean benchmarks are true or false. For example, visible damage is expected to be false.
 - Numerical standards are usually held to upper and lower control limits. For example, tire pressure cannot exceed 35 psi (35 is the standard).

8. Click **Save**.

Viewing a Quality Specification

Follow this procedure to view a quality specification.

To view a quality specification:

1. Go to Quality > Specifications > Search.
2. To include inactive records in this search, check the **Show Inactive Records** box.
3. Click **List Specifications**.
4. In the Quality Specification List, click **Edit** beside the specification you want to view.

Reviewing a Specification Context Record

Follow this procedure to review a specification context record.

To review a specification context record:

1. Complete [Viewing a Quality Specification](#).
2. In the Quality Specification Form, click the **Contexts** subtab.

The specification context record table displays the following **Associated Items** columns:

Field	Description
Location	Where the transaction must take place to trigger the specification.
Item	The item that must be part of the transaction to trigger the specification.
Transaction Type	Type of transaction being monitored that will trigger the specification.
Transaction Frequency	Defines how often the inspection trigger can skip transactions (receipts).
Source/Destination	The item source (vendor) identified on the transaction that triggers the specification.
Is Default	Indicates whether the context should apply to all sources and destinations.

For more information, see [Specification Contexts](#).

Adding a Specification Conformance Rule

Follow this procedure to add a specification conformance rule.

To add a specification conformance rule:

1. In the Quality Specification Form, click the **Conformance Rules** subtab.
2. Click **Add Conformance Rule**.
3. To specify the order conformance checks appear on the form, enter a **Sequence** number.
Rules will be evaluated in order and by default. After a rule fails, no further conformance rules are looked at.
4. Enter a unique and descriptive **Conformance Rule Name**.

5. Select an **Inspection** to associate with any follow-up actions.
6. Select or create an **Action** to update on the Specification Queue if the conformance rule fails.
For example, Quarantine or Return to Vendor.
7. To stop active processes when an inspection fails, check the **Halt on Failure** box.
8. To prevent this rule from displaying in lists of rules on records and transactions, check the **Is Inactive** box.
The specification cannot be modified or selected for any new context definitions.
9. Click **Save**.

Specification Contexts

Specification context records enable the quality administrator to define when NetSuite invokes a specification. Identifying these fields helps the Quality Management SuiteApp to monitor the appropriate transaction type and then match transaction details against context settings. When a match is identified, all inspections identified on the context record are added to the inspection queue to initiate shop floor activity.

A specification can only be triggered when an active matching context record is identified and the specification is active.

Context records support the following transaction types:

- **Item Receipt** – to monitor inbound item receipts.
- **Assembly / Work Order Build** – to monitor non-work center production activities.
- **Work Order Completion** – to monitor work center specific production activities.
- **API** – to trigger the Quality Inspection Queue for any transaction type supported by NetSuite.
- **Item Fulfillment** – to monitor outbound item receipts from Sale Orders, Transfer Orders, and Vendor Returns.
- **Production Result** – to monitor production activities reported through the Advanced Manufacturing SuiteApp.

For more information, see [Creating a Specification Context](#).

Creating a Specification Context

Follow this procedure to create a specification context.

To create a specification context:

1. Go to Lists > Accounting > Items.
2. Click **Edit** next to the item you want to update.
3. Click the **Custom** subtab.
4. Click **New Quality Specification Context**.

The Quality Specification Context form displays the assembly item which, when built or completed, should be inspected.

5. To complete the Assign Specification section:
 - a. Select the **Location** where NetSuite transactions should be monitored to potentially trigger an inspection.

- b. Select a **Transaction Type** you want to monitor.

If you select **Production Result** as the **Transaction Type**, it provides a user event that monitors data entry and scans context records for matches. When a match is found, it triggers specifications through the new module.



Note: You must have SuiteCloud and SuiteScript 2.0 knowledge and experience to work with this trigger.

- c. Select the quality **Specification** to be triggered when this context record matches a monitored transaction.
- d. (Optional) Select a **Pre-inspection Action** to implement when the specification is triggered. This action must be recognizable by an active workflow.

After installation, the Quality Management SuiteApp recognizes **Quarantine** as an action that can be taken at the time of context triggering.



Note: For ad hoc inspection queues without a transaction reference, select the **Pre-inspection Action** on the Ad Hoc Queue Creation Request page.

For more information, see [Creating an Ad Hoc Inspection Queue Without a Transaction Reference](#).

6. To complete the Apply Specification To section:

- a. To designate this fulfillment as the default item fulfillment and location no matter which customer the item is being shipped to, check the **Apply to Default** box.

Check this box if the **Transaction Type** is the following:

- **Receipt From Purchase Order** and you want to trigger the item specification regardless of vendor.

If checked, any **Vendor** selected is ignored.

- **Work Order Completion** and you want to trigger the item specification at the last manufacturing routing operation.

If checked, any **Work Center** selected is ignored.

To target inspections by customer, clear this box.

- b. Select a **Vendor**.

If the **Transaction Type** is **Receipt From Purchase Order**, select one or more **Vendors** with receipts that will trigger the inspection.

- c. Select a **Customer**.

(Optional) If the **Transaction Type** is **Receipt From Purchase Order**, select a **Customer** name to filter inspections based on the receipt's purchase order details.

- d. Select a **Work Center**.

If the **Transaction Type** is **Work Order Completion**, select the **Work Center** where production must be reported to trigger an inspection.

- e. Enter the **SuiteSignOn ID** associated with this context record.

If this field is empty, NetSuite will not attempt to pass queue information to an external system.

7. To complete the Automatically Generate Inspections section and define the number of lot controlled or serialized item inspections, enter a **Transaction Frequency**.

The following table describes the outcomes you encounter when you set a specific **Transaction Frequency** value:

Transaction Frequency Value	Outcome	Example
Blank or Null	Creates an inspection queue record for every item receipt.	If an item is received five times, the trigger script creates five inspection queue records.
0	Creates an inspection queue record for every item receipt.	If an item is received five times, the trigger script creates five inspection queue records.
1	Creates an inspection queue record for every other item receipt.	If an item is received five times, the trigger creates inspection queue records for receipts 1, 3, and 5.
2	Creates an inspection queue record for every third item receipt.	If an item is received five times, the trigger creates inspection queue records for receipts 1 and 4.

The **Current Transaction Count** field value is controlled by logic set by the quality administrator.

- Click **Save**.

On-Demand Quality Inspection Queues

Quality Management SuiteApp enables you to trigger an inspection queue on demand with or without reference to a NetSuite transaction context. You can inspect an item as many times as preferred.

Quality Management SuiteApp also provides enhanced quality control with ad hoc inspection queues, which you can manually trigger to inspect items. For more information, see [Ad Hoc Inspection Queues](#).



Note: You must install the Quality Management bundle before you can generate on-demand quality inspection queues. You should request a Release Preview account.

On-demand quality inspection queues include the following features:

- Inspect an item before you receive it in inventory
- Inspect an item with reference to a parent or an inventory transaction
- Inspect an item with different inspection criteria after rework
- Inspect an item on a shelf or in inventory at any time

For more information about inspection queues, see [The Quality Inspection Queue](#).

Ad Hoc Inspection Queues

You can manually trigger ad hoc inspection queues to inspect items. Every ad hoc inspection creates a new inspection queue. It does not modify an existing inspection queue.

You do not have to set up the item [Specification Contexts](#) record to trigger an ad hoc inspection.

You can create the following types of ad hoc inspection queues:

- **Inspection queue with a transaction reference** – to inspect an item with reference to a parent or an inventory transaction.

Quality Management supports inspection queue generation for inventory transactions with reference to relevant NetSuite parent transactions.

For example, before you receive it in inventory or with different inspection criteria after rework.

- **Inspection queue without a transaction reference** – to inspect an item on a shelf or in inventory at any time.



Note: To trigger an ad hoc inspection, you must manually create an ad hoc inspection queue. You cannot trigger ad hoc inspections based on a specific duration or at a fixed time. You also cannot automatically generate ad hoc inspection queues for parent transactions.

For more information about ad hoc inspection queues, see the following help topics:

- [Creating an Ad Hoc Inspection Queue With a Transaction Reference](#)
- [Creating an Ad Hoc Inspection Queue Without a Transaction Reference](#)
- [Viewing an Ad Hoc Inspection Queue](#)
- [Viewing an Ad Hoc Inspection Queue Error Message](#)

Creating an Ad Hoc Inspection Queue With a Transaction Reference

Follow this procedure to create an ad hoc inspection queue with a transaction reference. For example, a parent or an inventory transaction.

You can inspect or reinspect an item before you receive it in inventory. For example, a purchase order of wood for moisture level.

You can also reinspect an item with different inspection criteria after rework. For example, a work order for a repainted bike.

To create an ad hoc inspection queue with a transaction reference:

1. Go to Quality > Data Collection > Ad Hoc Queues > New.
The Ad Hoc Queue Creation Request page displays.
2. In the Queue Creation Options section, select **With Transaction Reference** from the **Queue Creation Option** list.
By default, the **Status** of the inspection queue is set to **Pending**.
3. In the Basic Requirements section, select an **Item** to inspect from the list.
4. Select a preferred quality **Specification** to inspect from the list.
Alternatively, you can select **New** to add a new quality specification.
For more information, see [Quality Specifications](#).
5. Select a preferred inspection **Location** from the list.
6. In the Transaction Options section, select a **Transaction Type**:
 - **Parent Transaction** – to generate an inspection with reference to a non-inventory transaction.
For example, purchase order, sales order, work order, vendor return authorization, return authorization, or transfer order.
Select this option to inspect or reinspect an item before you receive it in inventory.



Note: NetSuite creates an inspection queue for the total quantity of the parent transaction. It does not consider the produced or received quantity.

- **Inventory Transaction** – to generate an inspection with reference to an inventory transaction.

For example, item receipt, item fulfillment, work order completion, or assembly build.

Select this option to reinspect a completed item receipt or an item with different inspection criteria after rework.

7. Select a **Parent Transaction Type** or an **Inventory Transaction Type** to reference from the list.

The following table describes the **Parent Transaction Type** that Quality Management references to generate the inspection queue for a specific **Inventory Transaction Type**.

Parent Transaction Type	Inventory Transaction Type
Purchase Order	Item Receipt
Sales Order	Item Fulfillment
Work Order	Assembly Build Work Order Completion
Vendor Return Authorization	Item Fulfillment
Return Authorization	Item Receipt
Transfer Order	Item Fulfillment (generated at the source location when the item is shipped) Item Receipt (generated at the destination location when the item is received)

8. (Optional) To inspect a specific lot or serial number, select the **Lot/Serial Number** you want to create an inspection queue for from the list.

NetSuite references the selected lot or serial number for tablet inspection.

This field is available for lot controlled and serial numbered items in the Basic Requirements section. For example, if you select **Sales Order**, **Vendor Return Authorization**, or **Transfer Order** as the **Parent Transaction Type**.

9. Enter the parent or inventory transaction type's **Document Number**.

10. (Optional) To reference the lot or serial number for tablet inspection, enter an incoming or a supplier lot or serial number in the **Reference Lot/Serial Number** field.

This field is available if you select **Purchase Order**, **Work Order**, or **Return Authorization** as the **Parent Transaction Type**.

11. Click **Save**.

After you save the record, NetSuite creates the ad hoc inspection queue and sets its **Status** to **Complete**.

To view the updated status, refresh the Ad Hoc Queue Creation Request record. You can then report the inspection queue in the tablet interface.

If the status of your inspection queue is **Error**, see [Viewing an Ad Hoc Inspection Queue Error Message](#).



Tip: To view the **Status** and **Queue ID** columns for your list of ad hoc inspection queues, go to Quality > Data Collection > Ad Hoc Queues.

Creating an Ad Hoc Inspection Queue Without a Transaction Reference

Follow this procedure to create an ad hoc inspection queue without a transaction reference. You can inspect or reinspect an item on a shelf or in inventory at any time.

For example, you want to inspect the strength of concrete or manually reinspect the moisture level of wood every two hours.

To create an ad hoc inspection queue without a transaction reference:

1. Go to Quality > Data Collection > Ad Hoc Queues > New.
The Ad Hoc Queue Creation Request page displays.
2. In the Queue Creation Options section, select **Without Transaction Reference** from the **Queue Creation Option** list.
By default, the **Status** of the inspection queue is set to **Pending**.
3. In the Basic Requirements section, select an **Item** to inspect from the list.
When you select an item (a non-controlled, lot controlled, or serial numbered item), NetSuite populates the **Available Quantity** field with the quantity in inventory.
4. Select a preferred quality **Specification** to inspect from the list.
Alternatively, you can select **New** to add a new quality specification.
For more information, see [Quality Specifications](#).
5. Select a preferred inspection **Location** from the list.
6. (Optional) To inspect a specific lot or serial number, select the **Lot/Serial Number** you want to create an inspection queue for from the list.
NetSuite references the selected lot or serial number for tablet inspection.
This field is available for lot controlled and serial numbered items.
 - If you select a lot number, NetSuite populates the **Available Quantity** field with the quantity in the lot.
 - If you select a serial number, NetSuite populates the **Available Quantity** field with 1.
7. (Optional) To inspect an item available in inventory from a specific bin or inventory status, complete the following:
 - a. Select a preferred **Bin Number** to inspect from the list.
 - b. Select a preferred **Inventory Status** to inspect from the list.
 - c. Select a preferred **Pre-inspection Action** to implement when the specification is triggered from the list.
Alternatively, you can select **New** to add a new pre-inspection action.
This action must be recognizable by an active workflow.



Note: You can only complete this step if you activate the [Enhanced Receipt Quarantines Workflow](#) and implement bin transfers and inventory status updates. For more information, see [Configuring the Enhanced Receipt Quarantines Workflow](#).

8. Enter a numeric value to inspect in the **Quantity** field.
You can inspect the total or a subset of the **Available Quantity**.
For example, if you inspect items that are measured by weight, enter 10 to inspect 10 lbs. If you inspect items that are measured by number of items, enter 10 to inspect 10 pieces.
9. Click **Save**.
After you save the record, NetSuite creates the ad hoc inspection queue and sets its **Status** to **Complete**.
To view the updated status, refresh the Ad Hoc Queue Creation Request record. You can then report the inspection queue in the tablet interface.

If the status of your inspection queue is **Error**, see [Viewing an Ad Hoc Inspection Queue Error Message](#).

 **Tip:** To view the **Status** and **Queue ID** columns for your list of ad hoc inspection queues, go to Quality > Data Collection > Ad Hoc Queues.

Viewing an Ad Hoc Inspection Queue

Follow this procedure to view an ad hoc inspection queue.

To view an ad hoc inspection queue:

1. Go to Quality > Data Collection > Ad Hoc Queues.
The Ad Hoc Queue Creation Request List page displays.
The **Status** column shows the status of each inspection queue.
If the status of your inspection queue is **Error**, see [Viewing an Ad Hoc Inspection Queue Error Message](#).
The **Queue ID** column shows the inspection queue internal ID number that NetSuite generates when you create a queue.
2. Beside your preferred ad hoc inspection queue, click **View**.

Viewing an Ad Hoc Inspection Queue Error Message

If the **Status** of your ad hoc inspection queue is **Error**, follow this procedure to view the inspection queue's error message.

To view an ad hoc inspection queue error message:

1. Go to Customization > Scripting > Script.
2. Beside the **QM UE Adhoc Queue Creation** row, click **View**.
3. Click the **Execution Log** subtab.
The list of log messages (debug, audit, error, emergency, and system) displays.
4. (Optional) To only display the list of error messages, select **Error** from the **Type** list.

Quality Management Triggers

Trigger describes an event in NetSuite that alerts the Quality Management SuiteApp that an inspection activity is about to occur.

Quality Management supports the following triggers:

For more information, see [Fulfillment Trigger](#).

Fulfillment Trigger

The Quality Management SuiteApp enables you to define and perform quality inspections to support sales order fulfillment. You can associate inspections with any combination of item, location, customer, and shipping status to ensure inspections meet your organization's requirements. You can assign quality specifications to fulfillment transactions to initiate inspection activities based upon this data.

Quality Management Saved Searches

Quality Management SuiteApp incorporates a set of saved searches that you can use to find information about quality inspections and specifications.

Note: Quality Management saved searches are not integrated with ad hoc inspection queues with a parent transaction reference. For more information, see [Creating an Ad Hoc Inspection Queue With a Transaction Reference](#).

The following table shows the Quality Management saved searches incorporated into Quality Management SuiteApp.

Saved Search	ID	Description	Action
QM Incoming Inspections Scorecard	customsearch_qm_inco_insp_scorecard	Count of item receipt quality inspection results by status	—
QM Incoming Results by Specification & Inspection	customsearch_qm_inco_results_spec_insp	Item receipt inspection results	—
QM Inspection Detail Results	customsearch_qm_insp_detail_results	Quality inspection results at an inspection detail-level	—
QM Inspection Detail Scorecard	customsearch_qm_insp_detail_scorecard	Count of inspection detail quality results by status	—
QM Inspection Field Detail	customsearch_qm_insp_field_detail	Quality inspection results at an inspection field-level	—
QM Inspection Field Scorecard	customsearch_qm_insp_field_scorecard	Count of inspection field quality results by status	<p>Configure the appropriate quality inspection fields to include or exclude in your saved search.</p> <p>For more information, see Configuring the Quality Inspection Field for a Quality Management Saved Search.</p>
QM Inspection Samples Scorecard	customsearch_qm_insp_samples_scorecard	Count of inspection field quality results by status for samples	<p>Configure the appropriate quality inspection fields to include or exclude in your saved search.</p> <p>For more information, see Configuring the Quality Inspection Field for a Quality Management Saved Search.</p>
QM Production Specification Scorecard	customsearch_qm_prod_spec_scorecard	Count of specification quality results by status for work orders and assembly builds	—
QM Quality Inspection Queue Assigned	customsearch_qm_insp_queue_assigned	Inspection queues assigned to inspectors	—
QM Quality Inspection Queue Unassigned	customsearch_qm_insp_queue_unassigned	Inspection queues not assigned to anyone	—

Saved Search	ID	Description	Action
QM Quality Inspection Results	customsearch_qm_insp_results	Quality inspection results status	Configure the appropriate locations to include or exclude in your saved search. For more information, see Configuring the Location for a Quality Management Saved Search .
QM Quality Inspection Values Reported	customsearch_qm_insp_values_reported	Reported quality check values for inspection	—
QM Quality Test Required	customsearch_qm_test_required	Count of transactions by transaction type that are eligible for quality inspections	Configure the appropriate locations to include or exclude in your saved search. For more information, see Configuring the Location for a Quality Management Saved Search .
QM Vendor Scorecard	customsearch_qm_vendor_scorecard	Quality inspection results by count for each vendor	—
QM Inspections Menu	customsearch_qm_insp_menu	List of inspections and their attributes	—

To view the results page of a specific saved search, see [Viewing a Quality Management Saved Search Results](#).

Viewing a Quality Management Saved Search Results

Follow this procedure to view the results page of a specific Quality Management saved search.

To view a Quality Management saved search results:

1. Go to Quality > Reports.
The list of Quality Management saved searches displays.
This list does not include the QM prefix. For example, the list displays Incoming Inspections Scorecard instead of QM Incoming Inspections Scorecard.
2. Click the name of your preferred saved search.
The results page for the saved search displays.
The results page includes the QM prefix. For example, QM Incoming Inspections Scorecard: Results.

Configuring the Location for a Quality Management Saved Search

Follow this procedure to configure the appropriate locations to include or exclude in the QM Quality Inspection Results and QM Quality Test Required saved searches.

To configure the location for a Quality Management saved search:

1. To configure the appropriate locations to include or exclude in your preferred saved search, do one of the following:
 - Go to Quality > Reports > Quality Inspection Results.
 - Go to Quality > Reports > Quality Test Required.
2. Click **Edit this Search**.
3. On the **Criteria** subtab, under the **Standard** subtab, do one of the following:
 - For QM Quality Inspection Results, select **Recorded By : Location** from the **Filter** list.
The Saved Quality Data Search window opens.
 - For QM Quality Test Required, select **Location** from the **Filter** list.
The Saved Quality Specification Context Search window opens.
4. To show inactive locations, check the **Show Inactives** box.
5. In the **Location** field, select one of the following:
 - **any of** – to include locations in your saved search.
 - **none of** – to exclude locations in your saved search.
6. Select one or more locations to include or exclude in your saved search.
To select multiple locations, press and hold the Ctrl key when selecting locations.
7. To add the new filter, click **Set**.
The **Description** field updates.
8. Click **Save**.

Configuring the Quality Inspection Field for a Quality Management Saved Search

Follow this procedure to configure the appropriate quality inspection fields to include or exclude.

You can specifically configure this for the QM Inspection Field Scorecard and QM Inspection Samples Scorecard saved searches.

To configure the quality inspection field for a Quality Management saved search:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. Beside the **Quality Inspection Fields List** row, click **List**.
3. To view the **Internal ID** column, click **Customize View**.
4. Enter a unique **Search Title**.
By default, the search title is Custom Quality Inspection Fields List Default View.
5. On the **Results** subtab, select **Internal ID** as the **Field**, click **Add**, and then click **Save**.
The Quality Inspection Fields List page displays the **Custom Default** view.
6. In the **Data Type** column, identify the **Text** and **Image** quality inspection fields that you want to include or exclude in your saved search.
7. Record the **Internal ID** numbers of the quality inspection fields.
8. To configure the appropriate quality inspection fields to include or exclude in your preferred saved search, do one of the following:
 - Go to Quality > Reports > Inspection Field Scorecard.

- Go to Quality > Reports > Inspection Samples Scorecard.
9. Click **Edit this Search**.
 10. On the **Criteria** subtab, under the **Standard** subtab, select **Quality Inspection Field** as the **Filter**.
The Saved Quality Data Samples Search window opens.
 11. To show inactive quality inspection fields, check the **Show Inactives** box.
 12. In the **Quality Inspection Field** field, select one of the following:
 - **any of** – to include quality inspection fields in your saved search.
 - **none of** – to exclude quality inspection fields in your saved search.
 13. Select one or more internal IDs to include or exclude in your saved search.
To select multiple values, press and hold the Ctrl key when selecting values.
 14. To add the new filter, click **Set**.
The **Description** field updates.
 15. Click **Save**.

Quality Management Workflows

Quality Management SuiteApp incorporates a set of workflows that you can use to find information about quality inspections and specifications.

These workflows are automated in your account. For more information about workflows, see the help topic [SuiteFlow \(Workflow\)](#).



Note: Quality Management workflows are not integrated with ad hoc inspection queues with a parent transaction reference. For more information, see [Creating an Ad Hoc Inspection Queue With a Transaction Reference](#).

The following table shows the Quality Management workflows incorporated into Quality Management SuiteApp.

Workflow	ID	Description	Action
QM Populate Vendor	customworkflow_qm_populate_vendor	Populates the vendor transaction in the quality inspection queue record	—
QM Quality Data Sample Scorecard Update	customworkflow_qm_data_sample_scorecard_update	Populates the Test Pass and Test Fail fields with integers in the following scorecards for sampled items: <ul style="list-style-type: none"> ■ QM Incoming Inspections Scorecard ■ QM Inspection Detail Scorecard ■ QM Inspection Field Scorecard ■ QM Inspection Samples Scorecard 	—
QM Send Email on Failure	customworkflow_qm_send_email_on_failure	Sends an email message if the quality specification fails	Set the Release Status of the workflow to Not Initiating . Then, make a copy of the

Workflow	ID	Description	Action
QM Send Email When Added to Queue	customworkflow_qm_send_email_added_queue	Sends an email message when the system automatically adds an item to the inspection queue	workflow and configure the appropriate recipient addresses to include in your email message. Set the Release Status of the copied workflow to Released . For more information, see Configuring the Recipient Address for a Quality Management Workflow .
QM Vendor Scorecard Field Update	customworkflow_qm_vendor_scorecard_field_update	Assigns an integer to a quality inspection result to enable accurate counting	Set the Release Status of the workflow to Not Initiating . Then, make a copy of the workflow and configure the appropriate recipient addresses to include in your email message. Set the Release Status of the copied workflow to Released . For more information, see Configuring the Recipient Address for a Quality Management Workflow .
Receipt Quarantines	customworkflow_qm_receipt_quarantines	Moves receipt materials to a designated bin and lets you set the inventory status according to pre-inspection and post-inspection quarantine rules	— —
Enhanced Receipt Quarantines	customworkflow_qm_enhanced_receipt_quarantines	Configure your item's bins and inventory statuses relevant to the inspection outcome, and inspect items in inventory from a specific bin or inventory status	Note: You can only implement either the Receipt Quarantines or Enhanced Receipt Quarantines workflow at any specific time. For more information, see Receipt Quarantines Workflows . Complete Creating a Specification Context . Then, set the Release Status of the Receipt Quarantines workflow to Suspended . Set the Enhanced Receipt Quarantines workflow to Not Initiating . Make a copy of the workflow and configure the appropriate parameters for your bins and inventory statuses. Set the Release Status of the copied workflow to Released . For more information, see Configuring the Enhanced Receipt Quarantines Workflow .

To view a specific workflow, see [Viewing a Quality Management Workflow](#).

Viewing a Quality Management Workflow

Follow this procedure to view a specific Quality Management workflow.

To view a Quality Management workflow:

1. Go to Customization > Workflow > Workflows.
The list of Quality Management workflows displays.
2. To view a specific workflow's details, click the **Name** of your preferred workflow.

Configuring the Recipient Address for a Quality Management Workflow

Follow this procedure to configure the appropriate recipient addresses for the QM Send Email on Failure and QM Send Email When Added to Queue workflows.

To configure the recipient address for a Quality Management workflow:

1. Go to Customization > Workflow > Workflows.
 2. To open your preferred workflow in edit mode, click one of the following:
 - **QM Send Email on Failure**
 - **QM Send Email When Added to Queue**
 3. Click **Edit**.
The Basic Information window opens.
 4. To prevent the initiation of new records into the workflow, set the **Release Status** to **Not Initiating**.
 5. Click **Save**.
 6. From the **More...** list, select **Make Copy**.
The workflow copy opens in edit mode. For example, QM Send Email on Failure (2).
 7. To configure the workflow state for the workflow copy, do one of the following:
 - For QM Send Email on Failure, click the **Send Email on Failure** state in the diagrammer.
 - For QM Send Email When Added to Queue, click the **Send Email When Added to Queue** state in the diagrammer.
 8. In the context panel, on the **State** subtab and under the After Record Submit section, hover over the **Send Email** action.
 9. Click the edit icon.
The Workflow Action window opens.
 10. In the Parameters section, under the Recipient section, select one of the following:
 - **Specific Recipient** – to use a static value for the email recipient.
 - **Free Form Address** – to send the email to recipients who do not have their email address stored in NetSuite or email multiple recipients.
 - **From Field** – to use a dynamic value for the email recipient.
 11. To specify one or more email recipients, do one of the following:
 - If you select **Specific Recipient**, select a **Recipient** from the list.
 - If you select **Free Form Address**, enter an **Email** address.
To email multiple recipients, separate each email address with a comma.
-  **Tip:** To prevent errors when listing multiple emails, remove white spaces before and after each email address.
- If you select **From Field**, select the record type that contains your preferred recipient from the **Record (Join Field)** list.
Then, select the recipient from the **Field** list.

12. (Optional) To Cc one or more recipients, enter their email addresses in the **CC** field.
13. (Optional) To Bcc one or more recipients, enter their email addresses in the **BCC** field.
14. Click **Save**.
15. In the context panel of the workflow copy, click the **Workflow** subtab.
16. Click the edit icon.
The Workflow window opens.
17. To run your workflow with the configured recipient addresses, in the Basic Information section, set the **Release Status** to **Released**.
18. Click **Save**.

Configuring the Enhanced Receipt Quarantines Workflow

i Note: You can only implement either the Receipt Quarantines or Enhanced Receipt Quarantines workflow at any specific time.

For more information, see the following topics:

- [Receipt Quarantines Workflows](#)
- [Enhanced Receipt Quarantines Workflow](#)

Follow this procedure to configure the appropriate parameters for your bins and inventory statuses for the Enhanced Receipt Quarantines workflow.

To inspect an item available in inventory from a specific bin or inventory status, see [Creating an Ad Hoc Inspection Queue Without a Transaction Reference](#).

To configure the Enhanced Receipt Quarantines workflow:

1. To set up the specification context at an item record level for inspection queue generation based on a transaction, complete [Creating a Specification Context](#).
2. Go to Customization > Workflow > Workflows.
3. Click **Receipt Quarantines**, and then complete the following:
 - a. Click **Edit**.
The Basic Information window opens.
 - b. To stop executing the Receipt Quarantines workflow, set the **Release Status** to **Suspended**.
 - c. Click **Save**.
4. Go to Customization > Workflow > Workflows.
5. Click **Enhanced Receipt Quarantines**, and then complete the following:
 - a. Click **Edit**.
 - b. To prevent the initiation of new records into the Enhanced Receipt Quarantines workflow, set the **Release Status** to **Not Initiating**.
 - c. Click **Save**.
 - d. From the **More...** list, select **Make Copy**.

The workflow copy opens in edit mode. For example, Enhanced Receipt Quarantines (2).

6. To configure the workflow states for the workflow copy, click the **Fail** state in the diagrammer, and then complete the following:

- a. In the context panel, on the **State** subtab and under the Entry section, hover over the **Quarantine On Quality Data** action.

- b. Click the edit icon.

The Workflow Action window opens.

- c. In the Parameters section, to assign your NetSuite transaction inventory detail a bin before an inspection, select your preferred bin for the **Pre-Inspection Bin**.

You can assign a pre-inspection (quarantine) bin to all the lots for the item.

By default, **Quarantine Bin** is selected.

Note: To configure the workflow properly, you must assign the same **Pre-Inspection Bin** for the **Fail**, **After Data Creation**, and **Pass** states.

- d. To move the inspected item or lot to the Pass bin when the inspection passes, select your preferred bin for **Bin On Pass**.

- e. To move the inspected item or lot to the Fail bin when the inspection fails, select your preferred bin for **Bin On Fail**.

- f. To assign your NetSuite transaction inventory detail an inventory status before an inspection, select your preferred status for the **Pre-Inspection Status**.

You can assign a pre-inspection status to items or lots you want to inspect.

By default, **Quarantine Status** is selected.

- g. To move the inspected item or lot to the Pass inventory status when the inspection passes, select your preferred status for **Inventory Status On Pass**.

- h. To move the inspected item or lot to the Fail status when the inspection fails, select your preferred status for **Inventory Status On Fail**.

- i. Click **Save**.

Note: By default, the **Create Bin Transfer** and **Change Inventory Status** boxes are checked to implement bin transfers and change inventory statuses, respectively. You should not clear the boxes.

7. Click the **After Data Creation** state in the diagrammer, and then repeat steps 6a-i.

8. Click the **Pass** state in the diagrammer, and then repeat steps 6a-i.

9. In the context panel of the workflow copy, click the **Workflow** subtab.

10. Click the edit icon.

The Workflow window opens.

11. To run your workflow with the configured parameters for your bins and inventory statuses, in the Basic Information section, set the **Release Status** to **Released**.

12. Click **Save**.

Store Quality Management Images

The quality administrator designates a file cabinet folder to control access to the images and manage file cabinet quota.

For more information, see the help topic [Creating File Cabinet Folders](#).

Quality engineers can use the tablet to take a picture during an inspection and then save the images for review and to support quality findings. NetSuite automatically uploads images to the designated folder in the File Cabinet and records them against the inspection.

For more information about storing quality images, see the following topics:

- [Setting Up Quality Management File Storage](#)
- [Store Quality Management Image Files](#)
- [Data Fields for Quality Management Images](#)

Setting Up Quality Management File Storage

Follow this procedure to set up Quality Management file storage.

To set up Quality Management file storage:

1. Go to Quality > Data Collection > Settings.
In the Quality Settings window, the upper left corner of the folder selector displays the selected folder for image storage.
2. To expand a folder, next to the folder name, click the + icon.
3. Select the file cabinet folder you want to save this image to.
Your quality administrator creates these folders.
4. Click **Save**.
Click **Cancel** to ignore all changes.

Store Quality Management Image Files

After the top-level folder is defined in the file cabinet, additional folders are created to help organize image content.

Since image files are linked to the inspection data directly, the following section describes the sub-folders and naming convention used for image files for reference only.

Images are grouped by:

- **Triggering Transaction and Specification** – Subfolder IDs are concatenated by an underscore (_).
- **Inspection** – The inspection subfolder can contain multiple image fields.
- **Data Field** – The data field is captured within the file name to segregate images.

To avoid conflicts with folder naming, the internal record IDs are used to build folder names.

For example, the following Quality Management Setup:

- Specification — Inspect for Receipt [ID=32]
- Inspection — Check for Visual Damage [ID=71]
- Image Field — Photo of Damage [ID=108]

This specification is triggered when an Item Receipt [ID = 120] is processed in the system.

After capturing the image, the following are created:

Folder 120_32

subfolder 71

File 'qm_120_32_71_108'

Data Fields for Quality Management Images

To enable the Quality Management tablet interface to capture inspection details, add a new data field image data type. All other elements of the data field setup (sequence, data field name, and instruction text) behave identically to other field types.

For more information, see [Data Fields](#).

Resetting Transaction Count

You can reset the **Current Transaction Count** field by configuring the scheduled QM Initialize Context Current Count script. Each time the script runs, it locates transaction count context records that need to be reset to zero, and then resets them. Scheduled resets (weekly) and a high **Transaction Frequency** (1000+) prompts the system to inspection the first occurrence within the defined period.

To reset transaction count:

1. Go to Customization > Scripting > Script Deployments.
2. Beside the **QM Initialize Context Current Count Script**, click **Edit**.
3. In the **Script Deployment** window, click the **Parameters** subtab.
4. Select the reset **Location** from the list.
5. In the **Transaction Type** list, select the reset triggering transaction type.
6. Select the reset **Item**.
7. Click **Save**.

To reset all displayed field entries leave that field empty. For example, leave the **Locations**, **Transaction Type**, and **Items** fields empty.

These parameters are set on the reset deployment record. By default, the Quality Management SuiteApp is delivered with one inactive deployment. You can create as many deployments as you need to handle the reset policies across your locations, transaction types, and items.

Certificate of Analysis (COA)

Quality Assurance issues a Certificate of Analysis (COA) document to confirm that a regulated item meets its quality specifications. A COA includes the inspection results from the quality control tests for an individual item batch or lot.

COA is available only for quality inspections with a **Sampling Requirement** set to **Simple Sampling**. For more information, see [Quality Inspections](#).



Note: You must install the Quality Management bundle before you can use COA. You should request a Release Preview account.

COA includes the following features:

- Support for lot controlled items only
- Automatic generation of a COA for a fulfilled item

- Generated COA details for each lot

A COA report generates for a fulfilled sales order when the item leaves the location. As part of the fulfillment process, you can generate a COA for items ready to ship. You must assign lots in item fulfillment before a COA generates. Only lot numbers assigned to an item in the item fulfillment document are available in the COA report.

If you have multiple lots, each page in the generated COA report represents a lot.

If you have the Administrator role, you can set preferences to generate a COA in a format that best suits your organization's needs.

Watch the following help video for information about creating a COA:



[Creating a Certificate of Analysis](#)

For more information about COA, see the following help topics:

- [Defining a Certificate of Analysis \(COA\) Field](#)
- [Defining a Customer Certificate of Analysis \(COA\) Attribute](#)
- [Custom Certificate of Analysis \(COA\) Template](#)
- [Defining a Certificate of Analysis \(COA\) Report Path](#)
- [Defining an Item Fulfillment Status Parameter](#)
- [Viewing a Generated Certificate of Analysis \(COA\) Report](#)

Defining a Certificate of Analysis (COA) Field

To generate a Certificate of Analysis (COA) report, you must define a COA field. When you define a COA field, you specify an applicable data field with criteria to inspect for a COA. For example, you inspect the pH level of milk to ensure it meets a specific pH standard.



Note: If you attach a COA data field to an inspection, the system ignores skip lot functionality. You must report all lots during inspection.

For more information, see [Quality Inspections](#).

Watch the following help video for information about creating a COA:



[Creating a Certificate of Analysis](#)

To define a COA field:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. In the **Quality Inspection Fields List** row, click **New Record**.
3. Enter a quality inspection fields list record **Name**.
For example, Lactic Acid or pH Level.
4. If you do not want this inspection field to appear in search lists and forms, check the **Inactive** box.
5. Select a **Data Type** for the data field:
 - **Text** – stores any kind of text data.
 - **Integer** – the most common numeric data type used to store numbers without a fractional component.
 - **Decimal** – provides an exact numeric in which the precision and scale can be arbitrarily sized.
 - **Date** – stores a date in the YYYY-MM-DD format.

- **DateTime** – stores a value containing both date and time together in the YYYY-MM-DD hh:mm:ss format.
 - **Boolean** – represents the values true and false. It can also be represented as 0 (for false) and 1 (for true).
 - **Image** – store or refers to any type of image file. For example, .jpg, .bmp, or .png.
 - **Select** – represents a predefined list of string values that you can select from during data entry.
 - **URL** – captures an external URL for later navigation.
6. To make this a required inspection field, check the **Mandatory** box.
 7. To identify whether the data field applies to each inspection or to each sample, check the **Sampling Summary Field** box.
 8. To enable the field for COA, check the **Certificate of Analysis (COA) Field** box, and then enter the **COA Criteria**.

For example, Between 2 and 3.

By default, all COA fields and COA criteria apply to all items and customers. If you want to define a customer-specific COA attribute for an item, complete [Defining a Customer Certificate of Analysis \(COA\) Attribute](#).



Note: You must check both the **Sampling Summary Field** and the **Certificate of Analysis (COA) Field** boxes to define a COA field.

9. Click **Save**.

After COA field definition, complete the procedure in [Viewing a Generated Certificate of Analysis \(COA\) Report](#).

Defining a Customer Certificate of Analysis (COA) Attribute

If you want to define a customer-specific Certificate of Analysis (COA) attribute for an item, follow this procedure. For example, you want to exclude a specific COA field from the COA report or modify the COA criteria for an item.

Watch the following help video for information about defining a customer COA attribute:



[Defining a Customer Certificate of Analysis Attribute](#)

To define a customer COA attribute:

1. Go to Lists > Relationships > Customers.
2. Beside the name of the customer for whom you want to define a COA attribute, click **Edit**.
3. Click the **Custom** subtab.
4. In the **Customer COA Attributes** subtab, click **New Customer COA Attributes**.
5. To select an **Item** and open the popup list, click the double arrow.
For example, Yogurt.
NetSuite populates the **Item Description** field with the selected item's details.
6. Select the **COA Attribute** that you want to modify.
For example, Lactic Acid or pH Level.
NetSuite populates the **Standard Criteria** field with the selected COA attribute's criteria.
For example, a pH Level of 4.4.

7. If you do not want this COA attribute to appear in search lists and forms, check the **Inactive** box.
8. Check one of the following boxes:
 - **Exclude from COA** – to exclude a COA field.
If you exclude a COA field, the COA field is not available in the COA report.
 - **Modify Criteria** – to modify the COA criteria.
For example, if you want to change your minimum acceptable pH Level from 4.4 to 4.2.
9. If you check the **Modify Criteria** box, enter your **New Criteria**.
For example, Less than 9.
10. Click **Save**.

Custom Certificate of Analysis (COA) Template

By default, the system uses a standard Certificate of Analysis (COA) template for COA report generation. Optionally, you can create your own customized template to generate a COA in a format that best suits your organization's needs.

To use a custom COA template for COA report generation, you must first create and define a custom saved search for COA. Then, you must create a custom COA template and add the template to the **QM SS Generate COA Document** script.

Perform the procedures in the following sections:

1. [Creating a Custom Saved Search for COA](#)
2. [Defining a COA Active Saved Search](#)
3. [Creating a Custom COA Template](#)
4. [Adding a COA Template](#)

Watch the following help video for information about customizing a COA template:



[Customizing a Certificate of Analysis Template](#)

Creating a Custom Saved Search for COA

By default, the system uses the standard saved search **COA Report Search** for COA report generation. To use a different saved search for COA report generation, create a custom saved search for COA.

Watch the following help video for information about customizing a COA template:



[Customizing a Certificate of Analysis Template](#)

To create a custom saved search for COA:

1. Go to Lists > Search > Saved Searches > New.
2. In the New Saved Search page, click **COA Report**.
3. Enter a name for the **Search Title**.
The default name is Custom COA Report Search.
4. Define your saved search as required.
For more information, see the help topic [Defining a Saved Search](#).
5. Click **Save**.

Next, complete the procedure in [Defining a COA Active Saved Search](#).

Defining a COA Active Saved Search

To use a custom saved search for COA report generation, define a COA active saved search.

Before you begin this procedure, complete [Creating a Custom Saved Search for COA](#).

Watch the following help video for information about customizing a COA template:



To define a COA active saved search:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. In the **COA Active Saved Search** row, click **New Record**.
3. From the **COA Report Saved Search** list, select your custom saved search.
4. To mark this saved search as active, check the **Active Saved Search** box.



Note: You must check this box to use the custom saved search for COA report generation.

5. Click **Save**.

Next, complete the procedure in [Creating a Custom COA Template](#).

Creating a Custom COA Template

By default, the system uses the standard template **COA Template** for COA report generation. To customize a COA layout that best suits your organization's needs, create a custom COA template in the Advanced PDF/HTML Templates page.

You must assign your custom saved search for COA to your custom COA template.

Before you begin this procedure, complete [Defining a COA Active Saved Search](#).

Watch the following help video for information about customizing a COA template:



To create a custom COA template:

1. Go to Customization > Forms > Advanced PDF/HTML Templates.
2. Click **New Template**.
3. In the Primary Information section, enter the template **Title**.
4. Enter the **Script ID**.

Script ID is the template internal ID number.

The system automatically adds the prefix **custtmp1** to the ID. For example, a custom script ID called `_qm_my_coa_report` appears as `CUSTTMPL_QM_MY_COA_REPORT` after the template saves.

5. From the **Saved Search** list, select your custom saved search for COA.
6. If you do not want this template to appear in search lists and forms, check the **Inactive** box.
7. Enter a template **Description**.
8. To customize your template layout, complete the Layout Setup section:
 - a. Select a preferred **Page Orientation**.

The default selection is **Portrait**.

- b. Select a preferred **Page Size**.
The default selection is **Letter**.
 - c. Enter a **Margin** for the **Top**, **Right**, **Bottom**, and **Left** fields.
The default values are **0.5**.
 - d. Select the preferred **Units** for your margins.
The default unit is **in**.
9. Click **Save**.
10. Customize your template as required.
For more information, see the help topic [Advanced Templates Customization in the Template Editor](#).
11. Click **Save**.
Your custom COA template appears on the Advanced PDF/HTML Templates page.

Next, complete the procedure in [Adding a COA Template](#).

Adding a COA Template

The **QM SS Generate COA Document** script generates the COA report data. To use your custom COA template for COA report generation, add the custom COA template by modifying the parameters in the script.

Before you begin this procedure, complete [Creating a Custom COA Template](#).

Watch the following help video for information about customizing a COA template:



[Customizing a Certificate of Analysis Template](#)

To add a COA template:

1. Go to Customization > Scripting > Script Deployments.
2. Beside the **QM SS Generate COA Document** row, click **Edit**.
3. Click the **Parameters** subtab.
4. In the **COA Template** field, enter the **Script ID** of your custom COA template in uppercase.
For example, CUSTTmpl_QM_MY_COA_REPORT.



Tip: To avoid error, go to Customization > Forms > Advanced PDF/HTML Templates, and copy the **Script ID** of your COA template.

5. Click **Save**.

Defining a Certificate of Analysis (COA) Report Path

By default, the Images folder with a Folder ID of -4 contains the generated Certificate of Analysis (COA) report. If you want to change the folder in which the system generates the COA report, define a COA report path.



Note: Only quality administrator and Administrator roles can define a COA report path.

To define a COA report path:

1. Go to Quality > Data Collection > Settings.
2. To change the default folder for the generated COA report, select another folder. The **Name** and **Folder ID** updates.
3. Click **Save**.

Defining an Item Fulfillment Status Parameter

If you want to change your default item fulfillment status that triggers Certificate of Analysis (COA) report generation, define the **Fulfillment Status** parameter.

Your default item fulfillment status depends on your shipping preferences. For more information about item fulfillment statuses and shipping preferences, see the help topic [Pick, Pack, and Ship Overview](#).

To define an item fulfillment status parameter:

1. Go to Customization > Scripting > Script Deployments.
2. In the **QM UE Item Fulfillment** row, click **Edit**.
3. Click the **Parameters** subtab.
In the **Fulfillment Status for COA Generation** field, the default value is **Shipped**.
4. To modify the default fulfillment status, enter the required value in the **Fulfillment Status** field.
For example, **Picked** or **Packed**.
5. Click **Save**.

Viewing a Generated Certificate of Analysis (COA) Report

After [Defining a Certificate of Analysis \(COA\) Field](#), you can view a generated COA report for a fulfilled sales order or for items ready to ship.

You must assign lots in item fulfillment before a COA report generates. Only lot numbers assigned to an item in the item fulfillment document are available in the COA report. If you have multiple lots, each page in the COA report represents a lot. For more information, see [Certificate of Analysis \(COA\)](#).

Watch the following help video for information about creating a COA:



[Creating a Certificate of Analysis](#)

To view a generated COA report:

1. Go to Documents > Files > Images.
2. Go to the folder in which the system generates the COA report.

The default folder is **Images**. For more information, see [Defining a Certificate of Analysis \(COA\) Report Path](#).

The COA report is a PDF file with the same **Name** as the item fulfillment document number.

For example, item fulfillment transaction 58 generates the COA report number 58.



Note: One COA report is available for an item fulfillment transaction at any specific time. If you modify an item fulfillment transaction, the COA report automatically updates.

3. Click the **Name** of the COA report you want to view.

The COA report opens in a new window.

4. To save a copy of the COA report, beside the **Name** of your preferred report, click **Download**.

The following screenshot shows an example of a generated COA report:

The screenshot displays a 'Certificate Of Analysis' report. At the top, it has a header section with four rows: 'Transaction Details' (Item Fulfillment #58), 'Date' (Jul 20, 2021 10:41:50 AM), 'Parent Transaction' (Sales Order #40), 'Item' (Yogurt), 'Lot Number' (Lot_1), 'Customer' (1 test company), and 'Lot Quantity' (1). Below this is a large empty area. Further down is a table with three rows: 'Field' (Lactic Acid, Ph Level, Color), 'Field Value' (3, 4, White), and 'Criteria' (Less than 8, Less than 2, Should be white).

Certificate Of Analysis			
Transaction Details	Item Fulfillment #58	Date	Jul 20, 2021 10:41:50 AM
Parent Transaction	Sales Order #40	Item	Yogurt
Lot Number	Lot_1	Customer	1 test company
Lot Quantity	1		
Field	Field Value	Criteria	
Lactic Acid	3	Less than 8	
Ph Level	4	Less than 2	
Color	White	Should be white	

The COA report displays the following details:

- **Transaction Details** – The item fulfillment number of the generated COA report.
 - **Parent Transaction** – The sales order number of the generated COA report.
 - **Lot Number** – The specific lot number.
 - **Lot Quantity** – The quantity in the lot.
- For example, you have two lots of bread and each lot contains 10 packets of bread. The number 10 represents the lot quantity.
- **Date** – Specifies the date and time of the generated COA report.
 - **Item** – Specifies the item.
 - **Customer** – Specifies the customer.

The COA report also contains a table with the inspection results and the inspection criteria. You can compare the data to confirm that a regulated item meets its quality specifications.

The COA report displays the following table columns:

- **Field** – Specifies the COA attribute for the item.
For example, pH Level.
- **Field Value** – Specifies the reported value for the item.
For example, the item Yogurt with a pH Level of 4.
- **Criteria** – Specifies the acceptable criteria defined for the item.
For example, Yogurt with a standard pH Level of Less than 2.

Derived Fields

Frequently sampled data needs to be aggregated or processed to provide a pass or fail evaluation. The Quality Management SuiteApp includes the Derived Field Plug-in implementation script. The plug-in

implementation script enables NetSuite to calculate and populate a summary field value by aggregating non-summary field values.

Derived fields also include the following features:

- **Simple counting** – For example, the number of samples recorded, passed, or failed.
- **Statistical analysis** – For example, average, median, or standard deviation.
- **Occurrence counting** – For example, the number of samples marked in a specific way.
- **Complex analysis based on external data** – For example, comparison to item standards.

For more information about derived fields, see the following help topics:

- [Defining a Derived Field](#)
- [Derived Field Plug-in Implementation](#)
- [Derived Fields Tablet Interaction](#)
- [Derived Field Evaluation](#)

Defining a Derived Field

To use the Derived Field Plug-in implementation script, you must first define a derived field. When you define a derived field, you apply a specific data field to each inspection or to each sample, and aggregate pass or fail evaluations.

To define a derived field:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. In the **Quality Inspection Fields List** row, click **New Record**.
3. Enter a quality inspection fields list record **Name**.
4. If you do not want this inspection field to appear in search lists and forms, check the **Inactive** box.
5. Select a **Data Type** for the data field:
 - **Text** – stores any kind of text data.
 - **Integer** – the most common numeric data type used to store numbers without a fractional component.
 - **Decimal** – provides an exact numeric in which the precision and scale can be arbitrarily sized.
 - **Date** – stores a date in the YYYY-MM-DD format.
 - **DateTime** – stores a value containing both date and time together in the YYYY-MM-DD hh:mm:ss format.
 - **Boolean** – represents the values true and false. It can also be represented as 0 (for false) and 1 (for true).
 - **Image** – store or refers to any type of image file. For example, .jpg, .bmp, or .png.
 - **Select** – represents a predefined list of string values that you can select from during data entry.
 - **URL** – captures an external URL for later navigation.
6. To make this a required inspection field, check the **Mandatory** box.
7. To identify whether the data field applies to each inspection or to each sample, check the **Sampling Summary Field** box, and then do the following:
 - a. To derive a value for the inspection field, enter your **Plugin Script ID** that calculates the derived value.

- b. Enter a **Derivation Description**.

For example, To help calculate average value.



Note: To define a derived field, you must check the **Sampling Summary Field** box, and enter a **Plugin Script ID** and a **Derivation Description**.

8. Click **Save**.

Next, complete the procedures in [Derived Field Plug-in Implementation](#).

Derived Field Plug-in Implementation

You must create your own implementation script and plug-in implementation for the Derived Field Plug-in. Then, to trigger the plug-in, you must update the quality inspection fields list record with the plug-in script ID.



Note: You must have JavaScript knowledge and experience to work with this plug-in implementation.

Perform the procedures in the following sections:

1. [Viewing a Plug-in Implementation Script Example](#)
2. [Creating a Derived Field Plug-in Implementation Script](#)
3. [Creating a Derived Field Plug-in Implementation](#)
4. [Updating the Derived Field Plug-in Script ID](#)

Viewing a Plug-in Implementation Script Example

If you want to view an example of a plug-in implementation script before you create one for the Derived Field Plug-in, follow this procedure.

To view a plug-in implementation script example:

1. Go to Customization > Plug-ins > Plug-in Implementations.
2. Beside **CalculateDerivedFiledValuePluginImplemen**, click **qm_calculate_derived_field_value_plugin_implementa.js**.
3. Click **Download**.
4. Open the downloaded file.

Next, complete the procedure in [Creating a Derived Field Plug-in Implementation Script](#).

Creating a Derived Field Plug-in Implementation Script

Before you create a Derived Field Plug-in implementation, you must first create the implementation script.

To create a Derived Field Plug-in implementation script:

1. Create a file with your own plug-in implementation script.

For example, in Notepad.

You can use qm_calculate_derived_field_value_plugin_implementation.js as reference. For more information, see [Viewing a Plug-in Implementation Script Example](#).

2. Save your script as a .js file in a local folder on your computer.
3. Go to Documents > Files > File Cabinet.
4. Go to SuiteApps > com.netsuite.qualityfeature > src > plugin.
5. Click **Add File**.
6. Select your script file and click **Open**.

The file uploads to the folder.

Next, complete the procedure in [Creating a Derived Field Plug-in Implementation](#).

Creating a Derived Field Plug-in Implementation

Follow this procedure to create a Derived Field Plug-in implementation.

Before you begin this procedure, complete [Creating a Derived Field Plug-in Implementation Script](#).

To create a Derived Field Plug-in implementation:

1. Go to Customization > Plug-ins > Plug-in Implementations > New.
2. In the Upload Plug-in Implementation page, in the **Script File** field, click the double arrow, and then click **List**.
3. Select the script file you uploaded in the File Cabinet.
4. Click **Create Plug-in Implementation**.
5. In the Select 2.0 Plug-in Type page, select **Derived Field Plugin Type**.
6. In the Plug-In Implementation page, enter a plug-in **Name**.
7. Enter a custom internal **ID**.

If this field is left blank, the system generates a script ID.

Regardless of whether the ID is custom or system-generated, after the plug-in implementation saves, the system automatically adds the prefix **customscript** to the ID.

For example, a custom script ID called _derived_field_imp appears as customscript_derived_field_imp after the template saves.

8. Set the **Status** of the custom plug-in to **Released**.
9. Select a **Log Level**:
 - **Debug** – For scripts in testing mode. Selecting this level shows all Debug, Audit, Error, and Emergency information in the script log.
The default selection is **Debug**.
 - **Audit** – For scripts running in production mode. Selecting this level provides a record of events that have occurred during the processing of the script.
For example, A request was made to an external site.
 - **Error** – For scripts running in production mode. Selecting this level shows only unexpected script errors in the script log.
 - **Emergency** – For scripts running in production mode. Selecting this level shows only the most critical errors in the script log.

10. Enter a plug-in implementation **Description**.
11. Select an **Owner** for the plug-in implementation.

By default, the **Owner** is set as the user logged in during the creation of the plug-in implementation.

After the system creates the plug-in implementation, only the owner of the script can modify it.

12. To inactivate the current script or plug-in implementation, check the **Inactive** box.



Note: When a script is set to **Inactive**, all associated deployments of the script are also inactive.

To deactivate a specific deployment rather than all deployments of this script, go to the Script Deployments page.

13. Click **Save**.

Next, complete the procedure in [Updating the Derived Field Plug-in Script ID](#).

Updating the Derived Field Plug-in Script ID

To trigger the Derived Field Plug-in, you must update the quality inspection fields list record with the Derived Field Plug-in script ID.

Before you begin this procedure, complete [Creating a Derived Field Plug-in Implementation](#).

To update the Derived Field Plug-in script ID:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. In the Record Types page, beside **Quality Inspection Fields List**, click **List**.
3. Beside the **Name** of your preferred quality inspection fields list record, click **Edit**.
4. In the **Plugin Script ID** field, enter the custom or system-generated ID of your Derived Field Plug-in implementation.

For example, customscript_derived_field_imp.



Tip: To avoid error, go to Customization > Plug-ins > Plug-in Implementations, and copy the **ID** of your Derived Field Plug-in implementation.

5. Click **Save**.

Derived Fields Tablet Interaction

Derived fields are not displayed in the tablet or evaluated in the inspection record.

If the inspection has derived fields and other summary fields in the inspection record, you can encounter the following outcomes:

- If the evaluation results of summary fields (other than derived fields) is **Pass**, the tablet header does not turn green.
The **Status** is **Tentative Pass** instead of **Pass**.
- If the evaluation results of summary fields (other than derived fields) is **Fail**, the tablet header turns red.

The **Status** is **Fail**.

For more information, see [Pass Fail Criteria](#).

Derived Field Evaluation

You should enter values for the sample fields for the derived field. For example, if the derived field is an average of five sample weights, you should record the values of sample weights 1, 2, 3, 4, and 5.

In the tablet interface, the plug-in implementation script triggers and the calculation of the derived field occurs when you click **Finish Inspection**. You can view the calculated value in the quality data detail record.

For more information about the status of your derived field, see the following help topics:

- [Viewing the Derived Field Plug-in Implementation Status](#)
- [Accessing the Derived Field Plug-in Failure Log](#)
- [Resolving Derived Field Plug-in Failures](#)
- [Resolving Derived Field Plug-in Failures as a Quality Administrator](#)

Viewing the Derived Field Plug-in Implementation Status

Perform this procedure to view the Derived Field Plug-in implementation status.

To view the Derived Field Plug-in implementation status:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. Beside **Quality Data** or **Quality Data Detail**, click **List**.
 - If you select **Quality Data**, the **Status** column displays the plug-in implementation status.
 - If you select **Quality Data Detail**, the **Result Status** column displays the plug-in implementation status.

If the plug-in implementation fails, the Quality Data **Status** and the Quality Data Detail **Result Status** are **Error**. For more information, see [Accessing the Derived Field Plug-in Failure Log](#).

If the plug-in implementation fails, the appropriate recipients receive an email notification. By default, the current user receives the email notification. To configure your email recipients, see [Configuring Email Recipients for a Derived Field Plug-in Implementation Failure](#).

Accessing the Derived Field Plug-in Failure Log

To access the Derived Field Plug-in failure log, you must deploy the RESTlet script "QM rest set queue options."

To resolve the plug-in failure, you must:

- Correct the plug-in implementation.
- Recreate the inspection queue.
For more information, see [The Quality Inspection Queue](#).
- Recreate the inspection record.

For more information, see [Quality Inspections](#).

- Finish the inspection again.

Alternatively, the quality administrator can change the **Status** of the inspection queue to **In Work**, and then record and finish the inspection.

Configure Quality Management Preferences

The QM parameters record provides configuration flexibility for preferences in the Quality Management SuiteApp.

For example, if your [Derived Field Plug-in Implementation](#) fails, you can use this record to configure the appropriate recipients to receive an email notification. For more information about the status of your derived field, see [Derived Field Evaluation](#).

You can also use this record to configure the threshold sample row count to enable the CSV upload option for sample data.

For more information about configuring Quality Management preferences using the QM parameters record, see the following help topics:

- [Configuring Email Recipients for a Derived Field Plug-in Implementation Failure](#)
- [Configuring Sample Row Threshold for CSV](#)

Configuring Email Recipients for a Derived Field Plug-in Implementation Failure

Follow this procedure if your [Derived Field Plug-in Implementation](#) fails and you want to configure the appropriate recipients to receive an email notification.

For more information about the status of your derived field, see [Derived Field Evaluation](#) and [Viewing the Derived Field Plug-in Implementation Status](#).

To configure email recipients for a Derived Field Plug-in implementation failure:

1. Go to Customization > Lists, Records, & Fields > Record Types.
2. Beside **QM Parameters**, click **New Record**.
In the **Custom Form** field, the default selection is **Custom QM Dynamic Parameters Form**.
3. To remove all references to this record from your account, check the **Inactive** box.
4. From the **Key** list, select **Email**.
5. In the **Value** field, enter each preferred recipients' email address separated by a comma.
6. Click **Save**.

Configuring Sample Row Threshold for CSV

Follow this procedure to configure the row count threshold to enable the CSV upload option for sample data.

For more information about the CSV upload functionality, see [Quality Inspection Sampling for CSV](#).

To configure sample row threshold for CSV:

1. Go to Customization > Lists, Records, & Fields > Record Types.
 2. Beside **QM Parameters**, click **New Record**.
In the **Custom Form** field, the default selection is **Custom QM Dynamic Parameters Form**.
 3. To remove all references to this record from your account, check the **Inactive** box.
 4. From the **Key** list, select **Sample Row Threshold for CSV**.
 5. In the **Value** field, enter a row count threshold value.
For example, if you enter 10, you can encounter the following outcomes:
 - If the number of sample rows generated by QM is less than 10, all inspection values appear in the tablet interface.
 - If the number of sample rows generated by QM is equal to or more than 10, all inspection values upload as a CSV file.
- Note:** The default value set for **Sample Row Threshold for CSV** is 25.
6. Click **Save**.

Quality Management Mobile Data Collection

The Quality Management SuiteApp enables you to use mobile devices to collect inspection data. Tablets (as opposed to phones) are preferred due to the amount of information displayed and captured to support Quality Management activities. The mobile data collection interface delivers all of the relevant information a quality engineer needs to efficiently and accurately gather inspection data. The interface is also available on computers and laptops.

For more information about mobile data collection, see the following topics:

- [Set Up the Quality Management Tablet Interface](#)
- [Quality Management Tablet Data Collection](#)
- [Quality Specifications in the Quality Management Tablet Interface](#)
- [Quality Inspection Sampling for CSV](#)

Set Up the Quality Management Tablet Interface

Before you can collect data in the Quality Management tablet interface, you must first set up the tablet interface and complete the following setup tasks:

- [Access the Quality Management Tablet Interface](#)
- [Configuring a Custom Search in the Quality Management Tablet Interface](#)
- [Assigning a Quality Inspection in the Quality Management Tablet Interface](#)

Access the Quality Management Tablet Interface

You can open the Quality Management tablet interface in write-mode when you log in with a Quality Management SuiteApp role, such as quality administrator, quality engineer, or quality manager. Administrator and custom roles do not have write access to the tablet.

To support custom role access to the tablet in write mode, update all script deployment custom roles separated by commas (,). The script deployment script is "QM tablet initial rest" and the deployment ID is "customdeploy_qm_rest_getinitialdata."

You must have access to at least one of the following Quality Management roles:

- Quality administrator
- Quality engineer
- Quality manager

To access the tablet in read-only mode, use a custom role.

Configuring a Custom Search in the Quality Management Tablet Interface

Follow this procedure to configure a custom saved search for the Quality Management tablet interface.

To configure a custom search in the Quality Management tablet interface:

1. In NetSuite, go to Lists > Search > Saved Searches.
2. In the Saved Searches page, beside **QM Configuration**, click **Edit**.
3. Enter a **Search Title**.
4. Click the **Results** subtab.
5. On the **Columns** subtab, select **Transaction Quantity** as the **Field**, and then click **Add**.
6. Select **Item Fields...** as the **Field**.
The Saved Quality Inspection Queue Search window opens.
7. Select **Description** from the **Item Field** list, and then click **Add**.
The added **Field** displays as **Item : Description**.
8. Click **Save**.
9. Go to Customization > Lists, Records, & Fields > Record Types.
10. In the Record Types page, beside **QM Tablet Queue Searches**, click **New Record**.
11. In the QM Tablet Queue Searches page, enter a search **Name**.
12. Select **QM Configuration** from the **QM Tablet Saved Search** list.
13. Click **Save**.
14. Refresh your tablet, and then click **Settings**.
15. Select a **Tablet Data Source**.
16. Tap **OK**.

Assigning a Quality Inspection in the Quality Management Tablet Interface

After an inspection is triggered, it displays in the data collection tool inspection queue. A quality manager can control important attributes of the pending inspection including the assignee, priority, and status.

An inspection for a triggered specification can only be staged for the tablet when an active specification-inspection record is identified and the inspection is marked **Active**.

Follow this procedure to assign an inspection in the Quality Management tablet interface.

To assign a quality inspection in the Quality Management tablet interface:

1. Go to Quality > Data Collection > Assign Inspections.
2. (Optional) To refine your search results, complete the following fields in the Inspection Queue Filters section:
 - a. Select a **Location** where this inspection is to occur from the list.
For example, Indianapolis Manufacturing Center.
 - b. Select an **Item** record to be inspected.
 - c. Select the name of the person this inspection is **Assigned To**.
 - d. Select an **Inspection Status**.
For example, Pass, Fail, or Pending.
 - e. Select a **Transaction Type** to be inspected.
For example, Item Fulfillment or Work Order Completion.
3. To display existing inspections that match the filters you set, click **List**.
If you do not set any filters, the list displays all inspections in the queue.
4. To update one or more queues, complete the following fields in the Update Queue section:
 - a. Select an inspector name from the **Set Assigned To** list.
 - b. Select an inspection priority from the **Set Priority** list.
 - c. Select an inspection status from the **Set Status** list.
5. In the **Queue Records** subtab, beside the inspections you want to update, check the **Select** box.
You can set the status of pending inspections to determine the Queue Records list order.
6. Click **Assign**.

Quality Management Tablet Data Collection

The Quality Management SuiteApp enables you to use your tablet to record quality inspection data wirelessly within your facility.

For more information, see the following topics:

- [Quality Management Tablet Requirements](#)
- [Collecting Quality Data with a Tablet](#)
- [Capturing Images in the Quality Management Tablet Interface](#)
- [Managing Tablet Settings](#)

Quality Management Tablet Requirements

To use the Quality Management SuiteApp, your tablet must meet the following requirements:

- At least 256 MB flash memory
- Android 4.1 or higher
- 1D barcode scanner

- 4 inch or larger touch screen
- 802.11a/b/g enabled
- Bluetooth enabled
- HTML 5 and JavaScript enabled browser (TLS 1.2 compliant)
- Interactive Sensor Technology (IST)
- (Optional) Ruggedized or semi-ruggedized

Collecting Quality Data with a Tablet

Follow this procedure to collect quality data with a tablet.

To collect quality data with a tablet:

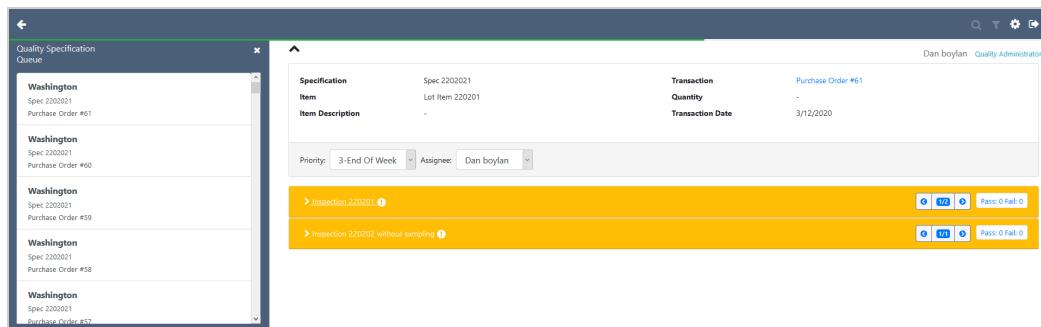
1. Go to Quality > Data Collection > Tablet.

The tablet Quality Specifications Queue table displays summary information for all specifications that are in Pending or In Work status.

To control the table contents and quickly identify inspection activities to be taken, click the specification queue icons to search, filter, and then adjust your tablet language settings.

2. In the **Quality Inspection Queue**, click the row containing the specification you want to view.

The following screenshot shows an example of specification details when you click the Washington facility.



Capturing Images in the Quality Management Tablet Interface

NetSuite enables quality engineers to use the Quality Management SuiteApp tablet interface to capture images, associate them with a quality record, and upload them to a NetSuite File Cabinet. This helps improve and support inspections and processing returns and refunds related to quality non-conformance.

The quality administrator designates a quality file cabinet folder for storing images, controlling folder access, and managing cabinet quota.

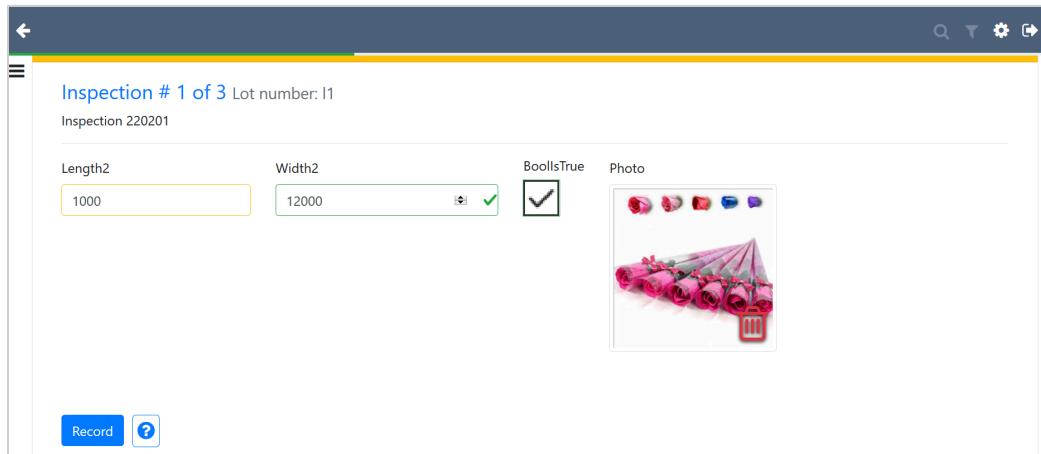
For more information, see the help topic [Creating File Cabinet Folders](#).

Quality engineers use the tablet to take a picture during an inspection and then save the images for review and support quality findings. NetSuite automatically uploads images to the file cabinet and records them against the inspection.

To capture images in the Quality Management tablet interface:

- To link an image to inspection data, do one of the following:
 - To take a picture, on the tablet interface, tap the **Photo** (camera) icon.
 - To select an image from the device, click the **Image** (picture) icon.

The following screenshot shows how an image is linked to inspection data.



Double-click the image to preview the image in a separate browser window.

- To transfer the image to the NetSuite Field Cabinet, click **Record**.

- Give the image a unique and descriptive name.

For example, <queue record ID> - <inspection ID> - <field ID>. <image format extension> (312 - 12 - 23.jpg).

- Associate the new file with the quality data inspection record.

When you upload larger images, they may not upload immediately. The following table displays the average upload time for different image sizes.

Image Size	Average Upload Time
500 KB	10 seconds
1 MB	20 seconds
2 MB	30 seconds

Managing Tablet Settings

Follow this procedure to manage tablet settings.

To manage tablet settings:

- Click the **Settings** icon (gear).
- In the **User Settings** popup window, select a **Font size**.
- Select a **Tablet Data Source**.
- To return only queue entries assigned to you, check the **Show only my items** box.
- To return receipt inspections, check the **Show receipt inspections** box.
- To return in-process inspections, check the **Show in-process inspections** box.

7. Beside the column you want to display in the tablet interface, check the **View Columns** box.
8. To display queue data, click **Log State**.
Copy and then send this information with any case related to incorrect queue displays to support or include the details in the support case.
9. Click **OK**.

Quality Specifications in the Quality Management Tablet Interface

For information about quality specifications in the Quality Management tablet interface, see the following topics:

- [Quality Specification Collapsible Panes](#)
- [Searching for a Quality Inspection](#)
- [Filtering a Quality Specification Queue](#)

Quality Specification Collapsible Panes

The quality specification is organized by the following collapsible panes:

- [Specification Queue](#)
- [Tablet Sidebar](#)
- [Collapsible Pane](#)
- [Inspection Queue Fields Details](#)

Specification Queue

The Quality Specification Queue window displays icons that direct you to Quality Tablet Collections features.

To control the table contents and identify inspection activities to be taken, click the specification queue to search, filter, and then adjust your tablet language settings.

Tablet Sidebar

The Quality Management tablet interface collapsible sidebar displays the same list of Pending and In-Work inspections that are on the primary Inspection Queue page.

To **Expand** the sidebar, tap the menu icon (≡).

To **Collapse** the sidebar, tap the close icon (✖).

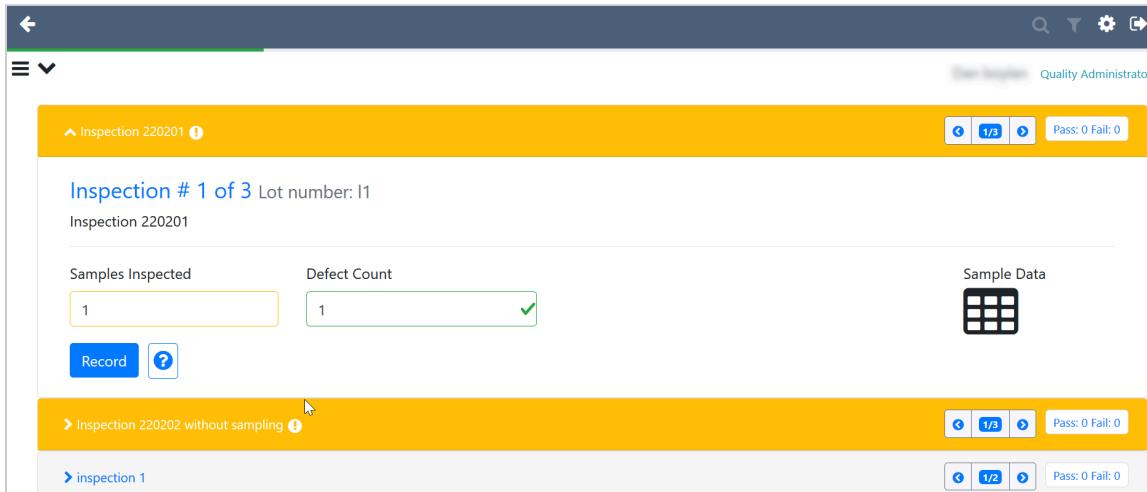
Collapsible Pane

Quality Management allows you to collapse the upper information pane to maximize screen space for data entry.

To **Expand** the information pane, tap the down arrow (▼).

To **Collapse** the information pane, tap the up arrow (▲).

The following screenshot shows a typical quality inspection:



The following table describes the Tablet Data Entry window details:

Field	Description
Inspection Bar	<p>A vertical list of inspections to be performed.</p> <p>These panes are presented top-to-bottom based on the sequence number assigned to them during setup.</p> <p>The color of the pane highlights the inspection activity:</p> <ul style="list-style-type: none"> ■ Grey indicates that no data has been entered. ■ Blue indicates that data has been entered but not recorded. Blue can also indicate that data has been recorded, but the evaluation is pending. ■ When data is recorded but not evaluated, a spinning gear icon appears to show the system is processing the information. ■ Yellow indicates that some (not all) data has been recorded. ■ Green indicates that data has been recorded and no quality standards have been violated. ■ Red indicates that data has been recorded and at least one quality standard has been violated. <p>The collapsible inspection bar displays the inspection number (220201), the number of inspections to be conducted, and the number of pass or fail inspections.</p>
Inspection Panes	<p>Displays the inspection details.</p> <p>In this example, the number of inspections to be conducted (1 of 3), any lots associated with this inspection, and inspection number.</p>
Inspection Instructions	<p>Detailed information that describes the inspection procedure or expected outcomes.</p> <p>This example displays, "Review material certificate. File with vendor."</p>
Summary Data	<p>Summary data displays as data fields for non-sampling inspections. Layout is controlled by inspection setup.</p> <p>This enables you to enter data to drive inspection pass or fail behavior. Sample data is supporting data and is set up automatically.</p>

Field	Description
Sample Data Grid Icon	The sample data grid icon (grid icon) appears when sample data collection is enabled. To display the sample data grid, click the sample data icon.
Sample Data Grid	<ul style="list-style-type: none"> ■ The column data field layout sequence is defined by your Administrator or quality manager. ■ Field focus auto advances after you enter data, from left to right, top to bottom. ■ Pre-created row count matches the number of samples required. The maximum is 50 rows with scrollable with static headers. For example, 5 columns x 50 rows = 250 fields. ■ Fields with validation rules are evaluated and displayed as data entered system checking rules to highlight pass or fail, or green, yellow, or red. ■ The grid supports numeric, text, and Boolean data types. ■ Saves and restores partial data. ■ You must provide inspected and defect counts if you use pass or fail evaluation.
Record	To save the data entered, click Record .
? (Inspection Help)	To display a description of the inspection specification, click the help icon. This displays details such as minimum and maximum measurements and instruments required. In this example, Material Certificate is OK.
Finish Inspection	To complete the inspection, click Finish inspection . If a required inspection is not complete, the Finish inspection button is hidden.

Inspection Queue Fields Details

The tablet inspection details table displays summary information for all specifications that are in Pending or In Work status. You can report data for a Location, Specification, Transaction, Item, and Status you want to report data for.

Click the arrow beside the column name to sort all queue data based on values in that column. The active sort column title is highlighted blue.

The following table describes the inspection queue fields.

Field	Description
Location	The name of the facility where the inspection is to be performed.
Specification	The specification ID number.
Item Description	A brief description of the item.
Transaction	The NetSuite transaction, Item Receipt, Work Order Build, or Work Order Completion, that matches a specification context. In this example, Purchase Order #61 initiates the inspection.
Quantity	The number of items to be inspected.
Transaction Date	The time that has elapsed since the inspection was queued.
Priority	The urgency of the inspection relative to other inspections.
Assignee	The name of the quality engineer the inspection is assigned to.

Searching for a Quality Inspection

Follow this procedure to search for a quality inspection.

To search for a quality inspection:

1. Click the **Search** icon (Q).
2. In the **Search** field, enter the term you want to search for.
For example, Circuit Board Inspections - Incoming.
3. From the list, select **Any** or a specific **Quality Specification Queue** field.

Filtering a Quality Specification Queue

Follow this procedure to filter a quality specification queue.

To filter a quality specification queue:

1. Click the **Filter** icon (F).
2. In the Filter section, select which **Quality Specification Queue** field you want to filter.
3. From the list, select **Any**, or another filter from one, some, or all queue fields.
To delete your previous selections, click **Clear All**.
To return to the previous page, click the **Go Back** icon (C).

Quality Inspection Sampling for CSV

The CSV upload functionality enables you to capture large volumes of sample data. When an inspection definition requires more than 25 samples, the Quality Management tablet interface creates a pre-formatted Excel template to help you collect sample data offline. By uploading data offline, the tablet speed and responsiveness is not compromised. Uploading data directly into the tablet interface speeds data transfer with little interruption to tablet usage.

To configure the row count threshold to enable the CSV upload option for sample data, see [Configuring Sample Row Threshold for CSV](#).

Quality engineers are then notified in their dashboard or by email if errors are encountered during data upload so they can address the problem in-line or re-import the data set. If you re-import the data set, the previous upload is erased, and the list is refreshed. This solution supports up to 8 MB of data.

For more information, see [Uploading Data Using CSV in the Quality Management Tablet Interface](#).

Uploading Data Using CSV in the Quality Management Tablet Interface

When you open an inspection that requires sampling of more than 25 samples, the table entry icons displayed in the tablet are replaced by the CSV upload () and download () icons.

To configure the row count threshold to enable the CSV upload option for sample data, see [Configuring Sample Row Threshold for CSV](#).

Follow this procedure to upload data using CSV in the tablet interface.

To upload data using CSV in the Quality Management tablet interface:

1. To download the pre-formatted Excel template, click the download icon ().
2. Enter your sample data into the template.
3. To launch the tablet file browser to upload the Excel document directly to NetSuite, click the upload icon ().

The Excel file processing occurs in NetSuite. The tablet responds to the next inspection.

The pre-formatted CSV Excel document contains sample data fields that are required for your inspection. For example, a Sample Weight (kg) field, Integer field, Text field, and a Boolean field. The first column is populated with number of samples that are expected based on your inspection definition. If your configured inspection requires sampling of 57 samples, the column displays up to number 57.

Quality Management Reports

The Quality Management SuiteApp offers administrative reports that help you to review the Quality Management SuiteApp setup and inspection execution. Each report appears in a separate window where you can preview results to help refine your criteria.

Administrative reports enable you to monitor the inspection process and quickly respond to resolve errors and ensure similar errors do not occur in future operations.

Quality Management offers the following administrative reports:

- [Specification Review](#)
- [Inspection Review](#)

Specification Review

Specifications incorporate numerous inspections, each containing a variety of fields, standards, and rules. A specification review helps you to ensure that your organization's quality needs are represented by providing a view of the underlying definition to help examine the entire specification.

Inspection Review

Use the quality inspection queue feature to display and review inspection records within the queue.

For more information about Quality Management reports, see the following topics:

- [Reviewing a Quality Specification](#)
- [Reviewing a Quality Inspection Queue](#)

Reviewing a Quality Specification

Follow this procedure to review a quality specification.

To review a quality specification:

1. Go to Quality > Reports > Specifications.

2. In the Review Specifications page, click **List**.
3. To include inactive specification records in this report, click the **Show Inactive Records** box.
4. Check the **Select** box beside the specification you want to review.
Select only one record.
5. Click **Review**.
6. To view the report, click the **Inspection List** subtab.

Reviewing a Quality Inspection Queue

Follow this procedure to review a quality inspection queue.

To view an inspection queue:

1. Go to Quality > Reports > Inspection Queue.
2. (Optional) To refine your search results, complete the following fields in the Filters section:
 - a. Select a **Location** where this inspection is to occur from the list.
For example, Indianapolis Manufacturing Center.
 - b. Select an **Item** record to associate with the inspection standard.
 - c. Select an **Inspection Status**.
For example, Pass, Fail, or Pending.
 - d. Select the name of the person this inspection is **Assigned To**.
 - e. Select a **Transaction Type** that will trigger the specification.
For example, Item Fulfillment or Work Order Completion.
3. To display existing inspections that match the filters you set, click **List**.
If you do not set any filters, the list displays all inspections in the queue.
4. In the **Inspection Queue** subtab, check the box beside the queue record you want to display.
Select only one record.
5. Click **Review**.
6. To review the queue record details, click the **Queued Inspections** subtab.

Item 360 Dashboard

The Item 360 Dashboard SuiteApp provides a real-time and concise overview of an item's current status. Based on the roles, it enables you to access data from various areas of NetSuite in one consolidated dashboard. It provides a view to all the current transactional data impacting the item along with related alerts that help the user make informed decisions. It enables visibility into item transactions for all locations and subsidiaries by default across multiple portlets, each relating to a different transaction type or inventory view.

The SuiteApp also has a dashboard portlet [Item Alerts Dashboard](#) where you can:

- View real-time alerts related to supply planning, order delay and supply allocation.
- Access the item through Item 360 Dashboard.

Supported Item Types for Item 360 Dashboard

Item 360 Dashboard supports the following item types:

- Assembly items
- Lot numbered assembly items
- Serialized assembly items
- Inventory items
- Lot numbered inventory items
- Serialized inventory items
- Kit or Package Items



Note: Kit item is applicable to portlets: Open Sales Orders, Open Quotes, Sales Analytics charts (Gross Item Volume & Sales, Net Item Volume & Sales, and Kit Sales), Order Delay alert in Item Alerts, Item Information, and Outbound Transactions.

Installing Item 360 Dashboard

The Item 360 Dashboard SuiteApp requires a NetSuite OneWorld account.

Only users with Administrator role can install the SuiteApp. For more information about installing a bundle, see the help topics [Installing from the SuiteApp Marketplace](#) and [SuiteApp Marketplace in NetSuite](#).

Prerequisites for Installing Item 360 Dashboard

The Item 360 Dashboard SuiteApp is developed and tested for use primarily with NetSuite OneWorld.

To use the Item 360 Dashboard SuiteApp, enable the following features:

Subtab	Feature Name
Items & Inventory	Inventory
Items & Inventory	Multi-Location Inventory
Company	Locations

Subtab	Feature Name
Transactions	Purchase Order
Transactions	Advanced Receiving

For more information, see the help topic [Enabling Features](#).

Required Features and Permissions for Portlets

To view the information in all portlets, it is necessary to provide access to required features and permissions.

To enable the required features, read the help topic [Enabling Features](#). To update required role permissions, read the help topics [Customizing or Creating NetSuite Roles](#) and [Assigning Roles to an Employee](#).

S No	Portlet Name	Features Required	Permissions Required for Role	Minimum Access Level for Permissions	Note
1	Item Alerts	For Supply Allocation alerts, enable Supply Allocation.	For Supply Allocation alerts, enable Allocate Orders.	View	User must have the corresponding feature and role permission.
		For Supply Planning alerts, enable Materials Requirements Planning.	For Supply Planning alerts, enable Materials Requirements Planning.	View	
2	Item Information	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		
3	Inventory by Location	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		
4	Projected On Hand	Enable <ul style="list-style-type: none"> ■ Assembly Items ■ Sales Orders ■ Return Authorizations ■ Inbound Shipments ■ Purchase Orders 	Follow prerequisites of the SuiteApp. All transactions details will be populated using a custom role from backend irrespective of role permission.		Role must have the corresponding transaction permission (Minimum access is View permission).
5	Inbound Transactions	Enable Assembly Items and Inbound Shipments.	Select <ul style="list-style-type: none"> ■ Work Orders ■ Inbound Shipments ■ Transfer Orders ■ Purchase Orders ■ Return Authorizations 	View	User must have the corresponding feature and role permission.

S No	Portlet Name	Features Required	Permissions Required for Role	Minimum Access Level for Permissions	Note
6	Outbound Transactions	Enable Sales Orders and Work Orders.	Select <ul style="list-style-type: none"> ▪ Sales Orders ▪ Work Orders ▪ Transfer Orders 	View	User must have the corresponding feature and role permission.
7	Inventory by Status	Enable Inventory Status.	Follow prerequisites of the SuiteApp.		
8	Inventory by Lot	Enable Lot Tracking.	Follow prerequisites of the SuiteApp.		Enable Inventory Status feature to display data in the Status column.
9	Inventory by Bin	Enable Bin Management	Follow prerequisites of the SuiteApp.		Enable Inventory Status feature to display data in the Status column.
10	Open Transfer Orders	Follow prerequisites of the SuiteApp.	Select Transfer Order.	View	
11	Open Inter Company Transfer Orders	Follow prerequisites of the SuiteApp.	Select Transfer Order.	View	
12	Planned Transfer Orders	Enable Materials Requirements Planning.	Select Materials Requirements Planning.	View	
13	Open Purchase Orders	Follow prerequisites of the SuiteApp.	Select Purchase Order.	View	
14	Open Inbound Shipments	Enable Inbound Shipments	Select Inbound Shipments	View	
15	Planned Re-Order Item Purchases	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		
16	3 Way Match	Follow prerequisites of the SuiteApp.	Select Purchase Order.	View	
17	Planned Purchase Orders	Enable Materials Requirements Planning.	Select Materials Requirements Planning.	View	
18	Open Blanket Purchase Orders	Enable Blanket Purchase Orders	Select Blanket Purchase Orders	View	
19	Open Work Orders (Assembly)	Enable Assembly Items.	Select Work Orders.	View	Enable Manufacturing Work In Process to display data in the WIP column. Enable Advanced Bill Of Materials feature to display data in the Bill of Materials and Revision columns.

S No	Portlet Name	Features Required	Permissions Required for Role	Minimum Access Level for Permissions	Note
20	Open Work Orders (Components)	Enable Assembly Items.	Select Work Orders.	View	
21	Reorder Point Work Orders	Enable Assembly Items.	Follow prerequisites of the SuiteApp.	View	
22	Planned Work Orders	Enable Materials Requirements Planning.	Select Materials Requirements Planning.	View	
23	Open Sales Orders	Enable Sales Order.	Select Sales Order.	View	
24	Open Quotes	Enable Estimates.	Select Estimates.	View	
25	Gross Item Volume & Sales	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		You must select a subsidiary for the data to display gross sales in the chart.
26	Net Item Volume & Sales	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		You must select a subsidiary for the data to display net sales in the chart.
27	Inventory by History	Enable <ul style="list-style-type: none"> ■ Assembly Items ■ Sales Orders ■ Return Authorizations ■ Inbound Shipments ■ Purchase Orders 	Follow prerequisites of the SuiteApp. All transactions details will be populated using a custom role from backend irrespective of role permission.		Role must have the corresponding transaction permission (Minimum is View permission).
28	Open Quote Requests	Enable Request for Quote.	Select Request for Quote.	View	
29	Open Purchase Contracts	Enable Purchase Contracts.	Select Purchase Contracts.	View	
30	Open Requisitions	Enable Requisitions.	Select Requisitions.	View	
31	Return Material Authorization	Enable Return Authorizations.	Select Return Authorizations.	View	
32	Open Opportunities	Enable Opportunities.	Select Opportunities.	View	
33	Item Demand Plans	Enable Demand Planning. Enable Materials Requirements Planning.	Select Item Demand Plan.	View	

S No	Portlet Name	Features Required	Permissions Required for Role	Minimum Access Level for Permissions	Note
34	Kit Sales	Follow prerequisites of the SuiteApp.	Follow prerequisites of the SuiteApp.		
35	Open Quality Inspections		Quality Data (custom record)	View	This portlet is visible only when the Quality Management bundle is installed in the account, and Quality Data (custom record) has View permission.

Other features and permissions:

- You can see **units** in the portlet only if the **Multiple Units of Measure** feature and permission is enabled in your account.
- The **Currency symbol** in the charts portlet appears only if the **Multiple Currencies** feature is enabled in your account.

Supported Browsers for Item 360 Dashboard

The Item 360 Dashboard SuiteApp supports the following browsers and operating systems:

Browser	Operating System
Google Chrome	<ul style="list-style-type: none"> ■ Windows 10 ■ Mac OS 10.15 or newer
Microsoft Edge (Chromium-based)	Windows 10
Mozilla Firefox	<ul style="list-style-type: none"> ■ Windows 10 ■ Mac OS 10.15 or newer
Safari	Mac OS 10.15 or newer

Creating or Customizing Roles and Permissions to Use Item 360 Dashboard

If you are an administrator, you can create new roles or customize roles for using the Item 360 Dashboard SuiteApp. For more information, see the help topics [Customizing or Creating NetSuite Roles](#) and [Assigning Roles to an Employee](#).

Refer to the following table for minimum access levels for different permissions required to use the Item 360 Dashboard SuiteApp:

Subtab	Permission	Minimum Access Level	Purpose
Transactions	Find Transaction	Edit	Required for Item Overview page.
List	Documents and Files	View	Required for all pages.

Subtab	Permission	Minimum Access Level	Purpose
	Items	View	Required for Item Alerts dashboard and Item Overview page.
	Subsidiaries	View	Required for Item Overview page.
	Locations	View	Required for Item Overview page.
Custom Records	Item 360 Criteria Configuration	View	Required for Item Alerts dashboard.
	Item 360 Criteria Grid	View	Required for Item Alerts dashboard.
	Item 360 Access	View	Required for Item Alerts dashboard.

Creating Criteria Configuration for Item 360 Dashboard

Criteria configuration enables you to create different criteria to prioritize items by their related alerts. You can create custom criteria and assign them to configurations for roles, to decide how items are prioritized for each role.

When you install the SuiteApp, by default, the SuiteApp creates a default criteria. This default criteria is applicable to all the items, and is applicable and preferred to all roles. For default criteria, all alert categories belong to High, Medium and Low categories. However, you can modify them if necessary.

To create criteria configuration

1. Go to Reports > Item 360 > Criteria > New.
2. In the **Name** field, enter a name for the criteria.
3. Under **Criteria Grid** subtab, provide details for the fields:
 - **Priority** – Provide a priority for the criteria. The Item Alerts dashboard displays the priority along with the alert count of each alert category.
 - **Alert Category** – Select the type of category you want the criteria to associate with.
 - **Minimum Alerts** – Provide the number of alerts a criterion should have. The minimum alert count should be 1.
4. Under **Access** subtab:
 1. Select one of the following options from the **User/Role** list:
 - Select **User** to enable the **User** column to edit. Choose the user you want to assign for the criteria.
 - Select **Role** to enable **All Roles** or **Role** columns to edit.
 - Check **All Roles** in the column if you want the criteria to be applicable to all roles. Checking this option disables the **Role** column.
 - From the **Role** list, select a role.
 2. (Optional) To select a preferred criteria for a specific role or user, check the box in the **Preferred** column.

Preferred criteria will be selected by default in Item Alerts dashboard.
5. Click **Save**.

Note: In the **Item Saved Search** field, select the saved search of type item. If it is not selected, the criteria is applicable to all items.

Note: To disable a criteria, check the **Inactive** box.

Item Alerts Dashboard

The Item Alerts dashboard lets you view the total count of alerts for supply planning, order delay, and supply allocation related to items. The dashboard provides a prioritized list of items based on the criteria selected along with the provision to change the criteria. Here you can:

- View total alerts belonging to different alert categories.
- Go to Item Overview page from Item 360 View hyperlink.

The **Last Job Run** field auto populates the date and time stamp of the job that was last run to update the item alerts count. The alerts count of each category of an item is populated based on the MR script **Item 360 MR Item Alerts Count Update**, which runs every 12 hours by default. An administrator can also run the script manually.

Note: You need to set up [Creating Criteria Configuration for Item 360 Dashboard](#) in Item 360 Criteria Configuration beforehand to select criteria from the Criteria list in the Item Alerts dashboard.

Setting Up Item Alerts Dashboard in NetSuite Home Page

You can add the Item Alerts dashboard to NetSuite Home page.

To add Item Alerts Dashboard to NetSuite Home Page

1. Go to the NetSuite Home page.
2. Click **Personalize**.
3. On the Personalize Dashboard menu, select **SuiteApps**.
4. Select the Item 360 Dashboard Portlet.

The Item Alerts dashboard is added to the home page.

The following table provides information about the type of information updated in the Item Alerts portlet.

Column Name	Description
Priority	Enables you to prioritize the alerts to act upon.
Item	Displays the item name. Click the Item hyperlink to view the item record.
Description	Provides a description about the item.
Supply Allocation Alerts	Appears when the inventory may not be able to meet the order demand on the required date. This alert helps indicate that the order may not be fulfilled in time.
Supply Planning Alerts	Appears when there is an insufficient supply to meet the current and future demand. The alerts could be specific to planned work orders, transfer orders, purchase orders and so on, which may need to be acted upon.

Column Name	Description
Order Alert Delays	Appears when the orders placed (purchase orders, sales orders and so on) are delayed beyond the required order dates.
360 View	Navigates to the Item Overview page with the item selected by default.

The alerts are visible based on the location and subsidiaries assigned to the user. For example, an Inventory Manager in-charge of California location views the alerts for different items in California and its subsidiaries. For more information, see the help topics [Assigning Roles to an Employee](#) and [Customizing or Creating NetSuite Roles](#).

Item 360 Dashboard Portlets

Item 360 Dashboard consists of multiple portlets. You can view the transactional records and other details impacting an item by clicking on a portlet. The selected portlets expands and collapses occupying the central area of the page.

The columns in the portlets are dynamically displayed based on the features enabled or selected item type. For example, if the searched item is not a lot item, then the Inventory by Lot portlet will not appear in the Inventory page.

- [Item Overview Page](#)
- [Inventory Page](#)
- [Purchasing Page](#)
- [Manufacturing Page](#)
- [Sales Page](#)
- [Quality Page](#)

 **Note:** The unit of measure is in the base UOM of the item.

Item Overview Page

The Item Overview page displays different types of item alerts and item information. If you have accessed the page directly from the **Reports** tab, you must select an item from the **Item** filter to view the related information under Item Alerts and Item Information portlets. After selecting the item, you can also filter the data displayed by the subsidiary or location.

You can go to Item Overview page by going to Reports > Item 360 > Item 360.

 **Note:** **Item** filter displays a list of 500 records by default. However, you can retrieve an item by searching the first three characters of the item description in the filter.

 **Note:** You can select the location and subsidiary based on the access provided to your roles. You must have minimum **View** access to the **Subsidiary** and **Location** permissions.

Item Alerts

The Item Alerts portlet lists the different types of alerts for the selected item. You can view the count of item alerts. For example, **Item Alerts (60)**, where 60 represents the total count of Supply Planning, Order Delay and Supply Allocation alerts.

The following table provides information about the types of alerts visible in the Item Alerts portlet.

Alert Name	Description
Supply Allocation	Appears when the inventory for the item may not be able to meet the order demand on the required date. This alert helps indicate that the orders for the item may not be fulfilled in time.
Supply Planning	Appears when there is an insufficient supply of the item to meet the current and future demand. The alerts could be specific to planned work orders, transfer orders, purchase orders and so on, which may need to be acted upon.
Order Delay	Appears when the orders placed for the item (purchase orders, sales orders and so on) are delayed beyond the required order dates.

The portlets are arranged in the descending order of the number of alerts. Each alert type can be expanded and collapsed. However, the first alert type is expanded by default.

Item Information

The Item Information portlet provides the related information for the item along with the item image. Click the item name hyperlink to view the item record. All the information visible under the portlet is populated from item record.



Note: The item image appears only if you enable the **Website** feature in the **Web Presence** subtab.

Inventory Page

The portlet details on the Inventory page are pre-populated based on the selection made under **Item** filter in the Item Overview page by default. You can also change the default selections to populate the corresponding transactions on the portlets.

Inventory by Location

The Inventory by Location portlet can be viewed across all locations and subsidiaries. It gives a real time availability of on hand quantity of the item across all locations. This includes total on hand in the base unit measure of the item.

This portlet has calculated fields as mentioned below:

- Available to Allocate: The field displays the current quantity of item that are available to be allocated.
- Unallocated Demand: The field displays the total required quantity of item that are yet to be allocated for the demand transactions (sales orders, transfer orders, and work orders).
- Overdue Demand: The field displays the total quantity of item that are yet to be:
 - Fulfilled for sales or transfer orders.
 - Used in assembly build.
- Overdue on Order: The field displays the total quantity of item that are yet to be:
 - Received for purchase or transfer orders.
 - Built from a work order.



Note: If **Allow Cross-Subsidiary Record Viewing** in role and **Advanced Item Location Configuration** feature is enabled in the account, then the user can view all locations for the item.

Projected On Hand

The Projected On Hand portlet gives a projection on the future on hand quantity of the item across all locations and subsidiaries. This portlet data is calculated based on expected future supply and demand item quantities. If the **Location** filter is not selected, the portlet displays on hand quantity based on the sum of all subsidiaries and locations accessible to the user.

Inbound Transactions

The Inbound Transactions portlet displays all inbound transactions for the item with corresponding quantities for inbound orders (purchase orders, transfer orders, work orders, inbound shipments, return material authorizations, and so on) that have not been fully received.

Outbound Transactions

The Outbound Transactions portlet displays all outbound transactions for the item with corresponding quantities for outbound orders (sales orders, work orders, and so on) that are either partially fulfilled or partially built.

Inventory by Status

The Inventory by Status portlet displays quantities available plus on hand quantities based on the **Inventory Status** column for the item.

Inventory by Lot

The Inventory by Lot portlet displays the quantities if the item is a lot numbered item. It is tracked using a **Lot Number** column along with the status of the lot.

Inventory by Bin

The Inventory by Bin portlet displays the quantities of items in bins. It is tracked using a **Bin Number** column along with the status of the bin.

Open Transfer Orders

The Open Transfer Orders portlet displays the transfer orders that have not been fully received or closed for the item. Click the hyperlink in the **TO#** column to go to the corresponding transfer order record.

Open Inter-Co Transfer Orders

The Open Inter-Co Transfer Orders portlet displays the inter-company transfer orders for the item that have not been fully received or fully closed. Click the hyperlink in the **TO#** column to go to the corresponding transfer order record.

Planned Transfer Orders

The Planned Transfer Orders portlet displays the planned transfer orders for the item that have been in planned or released status.

Inventory History

The Inventory History page displays the past transactions (inbound, outbound, and inventory adjustments) for the item which have impacted the on hand quantity. By default, the portlet displays a week's inventory transactions prior to the current date in a descending order. However, you can choose the date from which you want to view the transactions.

The data in the Inventory History portlet can be filtered based on date and type of transaction.

Purchasing Page

The Purchasing page provides transactions related to the purchase order activities of the item.

You can go to this page by going to Reports > Item 360 > Item 360, and then click on the **Purchasing** page.

Open Purchase Orders

The Open Purchase Orders portlet displays the purchase orders for the item that have not been fully received or closed. Click the hyperlink in the **PO#** column to go to the corresponding purchase order record. If the total purchase order quantity is linked to inbound shipment transaction, the PO is not displayed in this portlet and the Purchase Order (PO) is instead referenced in the Open Inbound Shipment portlet.

Open Inbound Shipments

The Open Inbound Shipments portlet displays the shipments for the item which have not been fully received, are yet to be shipped, or are partially received. Click the hyperlink in the **IS#** column to go to the corresponding inbound shipment record.

Planned Re-order Item Purchases

The Planned Re-order Item Purchases portlet displays the planned purchase orders for the item that need to be reordered based on its reorder point. If the preferred vendor is not defined in item record, the **Rate, Total, Currency, and Preferred Vendor** columns are not displayed.

3 Way Match

The 3 Way Match portlet displays purchase orders for the item:

- Partially received, received, or billed.
- One or more ordered, billed, and received variances.

The rate variance is calculated based on the difference between bill rate and Purchase Order (PO) rate, after which it is divided by the Purchase Order (PO) rate. Similarly, received variance and billed variance are also calculated.

Variances can have positive or negative values. However, at least one of the three variances for the purchase order must not be equal to 0 for the purchase order to be listed.

Planned Purchase Orders

The Planned Purchase Orders portlet displays the planned purchase orders for the item that have been in planned or released status. If the preferred vendor is not defined in item record, the **Rate**, **Total**, **Currency**, and **Preferred Vendor** columns are not displayed.

Open Blanket Purchase Orders

The Open Blanket Purchase Orders portlet displays the active blanket purchase orders for the item that have not been fully received or fully closed for the item. Click the hyperlink in the **BPO#** column to go to the corresponding blanket purchase order record.

Open Purchase Contracts

The Open Purchase Contracts portlet displays the open purchase contracts for the item. Click the hyperlink in the **Purchase Contract#** column to go to the corresponding purchase contract record.

 **Note:** The Open Purchase Contracts portlet does not display purchase contracts for kit items.

Open Quote Requests

The Open Quote Requests portlet displays the open quote requests for the item that are neither closed lost or closed won. Click the hyperlink in the **RFQ#** column to go to the corresponding request for quote record.

Open Requisitions

The Open Requisitions portlet displays all open requisitions for the item including:

- Requisitions that are approved, not closed, and not yet converted to purchase orders.
- Requisitions that belong to statuses **Partially Received/ Pending Order**.

Click the hyperlink in the **REQ#** column to go to the corresponding transaction record.

 **Note:** The Open Requisitions portlet does not display requisitions for kit items.

Manufacturing Page

The Manufacturing page provides transactions related to the work orders activities of an item.

You can go to this page by going to Reports > Item 360 > Item 360, and then click on the **Manufacturing** page.

Open Work Orders (Assembly)

The Open Work Orders (Assembly) portlet displays work orders for the item that have been released, where the item is the assembly item. Click the hyperlink in the **WO#** column to go to the corresponding work order record.

Open Work Orders (Components)

The Open Work Orders (Components) portlet displays work orders for the item that have been released, where the item is being used as a component. Click the hyperlink in the **WO#** column to go to the corresponding work order record.

Planned Work Orders

The Planned Work Orders portlet displays the planned work orders for the item that have been in planned or released status, and a work order with the status **Planned**.

Reorder Point Work Orders

The Reorder Point Work Orders portlet displays work orders associated with the item that need to be reordered based on the reorder point.

Sales Page

The Sales page provides transactions related to the sales orders activities of an item.

You can go to this page by going to Reports > Item 360 > Item 360, and then clicking on the **Sales** page.

Open Sales Orders

The Open Sales Orders portlet displays open sales orders for the item that have not been fully shipped. Click the hyperlink in the **SO#** column to go to the corresponding sales order record.

Open Quotes

The Open Quotes portlet displays all quotes for the item that have not been closed. Click the hyperlink in the **QUOTE#** column to go to the corresponding quotes order record.

Return Material Authorizations

The Return Material Authorizations portlet displays all returns made by customers for the item where the payment refund is partially completed, material is partially received or not received. Click the hyperlink in the **RMA#** column to go to the corresponding return authorization transaction.

Open Opportunities

The Open Opportunities portlet displays the opportunities for the item that are not closed lost or closed won or lost customer. Click the hyperlink in the **Opportunity#** column to go to the corresponding opportunity transaction record.

Item Demand Plans

The Item Demand Plans portlet displays the expected weekly demand plans for the item based on the previous or projected demand. The projection method can be based on linear regression, moving average, or sales forecast. Click the hyperlink in the **Demand Plan#** column to go to the corresponding item demand plan.



- The **Demand Date** column only displays a date that is greater than or equal to the current date.
- The Item Demand Plans portlet is displayed only when the replenishment method for the item is set as "Time- Phased".

Analytics

The Analytics sub page provides charts:

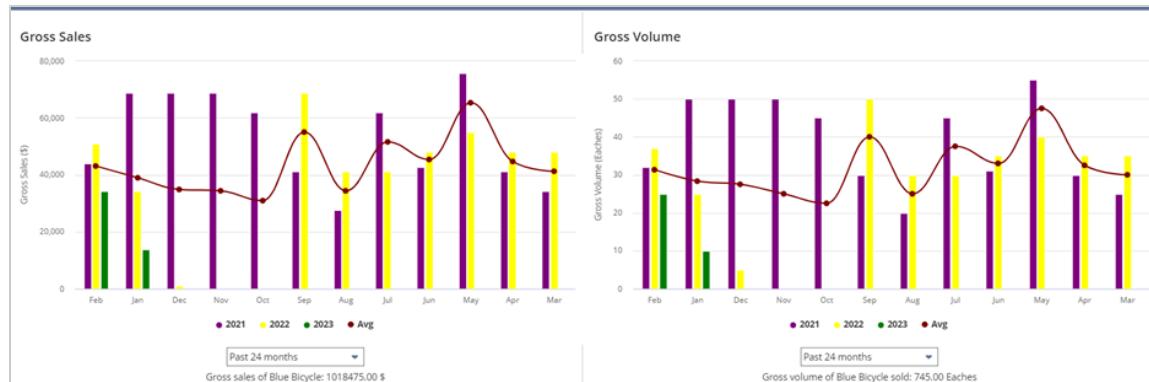
- Gross Sales & Volume
- Net Sales & Volume
- Kit Sales

The charts display the total sales or quantity of items sold for the period you select in the filter. By default, the period selected is **Last 24 months**.

The charts can display information of sales dynamically up to 36 months. You also can only choose to view the charts for the required years. For instance, to hide data for a particular year, click on the year to disable. You can click on the year again to undo the action.

For example,

- In Feb 2023, the chart includes Jan, 2021 to Feb, 2023 – 26 months, effectively including all of 2021 and 2022 plus Jan and Feb 2023.
- In Dec 2023, the chart includes Jan, 2021 to Dec, 2023 – 36 months, effectively including of 2021, 2022 and 2023.



Note: Invoices, cash sales and credit memos transaction types are considered for all chart types.

Gross Sales & Volume

The **Gross Sales & Volume** charts provide the gross sales and gross volume for the item. These charts also provide a trend of the average gross sales and volume. The charts are displayed based on the base unit of measure of the item. You must select a subsidiary for the data to display gross sales in the chart.

Net Sales & Volume

The **Net Sales & Volume** charts provide the net sales and net volume for the item. These charts also provide a trend of the average net sales and volume. The charts are displayed based on the base unit of measure of the item. You must select a subsidiary for the data to display net sales in the chart.

- i** ■ The Gross Sales & Volume chart is calculated based on the transactions from Invoice and Cash Sales.
 - Gross Sales = Invoice amounts + Cash Sales Amounts
 - Gross Volume = Invoice Quantity + Cash Sales Quantity
- The Net Sales & Volume chart is calculated based on the transactions from Invoice, Cash Sales and Credit Memos.
 - Net Sales = Invoice amounts + Cash Sales amounts - Credit Memos amounts
 - Net Volume = Invoice quantity+ Cash Sales quantity - Credit Memos quantity

Kit Sales

The **Kit Sales** charts provide a trend of sales within kits and sales by kit for the applicable item types as shown in the note below.

- i** **Note:** Inventory, assembly, and kit/package are item types applicable for Kit Sales charts.

The **Sales within Kits** chart gives a representation of the sales of component item associated with the kit item. The **Sales by Kit** chart gives a representation of the sales of total quantities of the component item being sold across multiple kits.

Quality Page

The Quality page provides transactions related to the quality inspection activities of the item.

You can go to this page by going to Reports > Item 360 > Item 360, and then clicking **Quality** page.

Open Quality Inspections

The Open Quality Inspections portlet displays open quality inspections for assembly or inventory item, that are either in **Pending** or **In Work** status. The portlet retrieves data for transaction types like sales orders, purchase orders, and work orders. To view the portlet, install the **Quality Management** bundle.

Error Messages for Item 360 Dashboard

Here are some error messages in Item 360 Dashboard as listed down:

Error Message	Cause	Action
You must have at least view permission to item, item 360 criteria configuration, item 360 criteria grid and item 360 access.	When the user tries to access an item through Item Alerts dashboard, they click on the View 360 hyperlink. However, the user won't be able to view until they have been provided the view permission.	For information, see Creating or Customizing Roles and Permissions to Use Item 360 Dashboard SuiteApp
You must have at least view access permission to item, location, and subsidiary.	When the user tries to access an item through Item Alerts dashboard, they click on the View 360 hyperlink. However, the user won't be	For information, see Creating or Customizing Roles and

Error Message	Cause	Action
	able to view until they have been provided the view permission.	Permissions to Use Item 360 Dashboard SuiteApp
Select an inventory or assembly item.	When the user tries to access Quality portlet, they won't be able to view the portlet unless the item selected from the Item filter is an inventory or assembly item type.	Select an inventory or assembly item.
The <i>{item name}</i> is not a component of any kit item.	The Kit Sales portlet will not display the charts as the selected item is not a part of any kit items.	Select any kit component from the Item filter to display the charts.
Select a subsidiary.	The Gross Sales and Net Sales charts will not display the charts until a subsidiary is selected.	Select a subsidiary from the Subsidiary filter to display the charts.
No data available	The Kit Sales portlet will not display the charts as the selected item is not a part of any kit items.	Select any kit component from the Item filter to display the charts.