QAD Warehousing User Guide

QAD Adaptive Applications

Version 1.0

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QAD Adaptive

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Contents

QAD Warehousing User Guide Change Summary

The following table summarizes significant differences between this document and previous versions.

Date/Version	Description	Reference
November 2025 /v1.0	Initial release.	–

Chapter 1: Overview

This chapter discusses the following topics:

Introduction

QAD Warehousing is now available as a core functionality in Adaptive. Warehousing streamlines the storage and retrieval of inventory, adding a warehouse layer on top of the ERP Locations. It provides material flow, demand-based task generation, and handheld transactions.

QAD Warehousing is fully integrated with the following:

- Serialization
- Production Orders
- QAD Automation Solutions: Data Collection
- QAD Automation Solutions: Label Printing

Benefits

Warehousing provides clear definitions for various manufacturing and distribution environments by:

- Providing a scalable solution that can handle the complexities of several multi-site warehouses down to the simplicity of a single-site warehouse.
- Providing a deeper system of organization for a physical warehouse.
- Improving space and labor utilization.
- Minimizing the total travel distance in the warehouse while performing inventory movements.
- Enabling users to record large- and small-scale activity.
- Minimizing administration intervention.

Transactions and Programs

Transactions

Transactions resulting from Warehousing functions are listed in the following table:

Table 1.1 Warehousing Transactions

Request Type	Type Code	Description
Picking Request	PICK-SO	Sales Order Pre-Shipper/Shipper Picking
	PICK-WO	Production Order Picklist Picking
	PICK-DO	Distribution Order Pre-Shipper/Shipper Picking
Putaway Request	PUT-TR	Inventory Putaway requested in advance in Warehouse Inventory Detail > Putaway Requests
	OTF-TR	On the Fly Inventory Transfer (real-time inventory transfer on the shop floor)
Replenishment Request	PICK-RE	Replenishing Min-Max Points in Replenishment Locations
	PICK-RE	Replenishment Request using manual replenishment quantity

Task Types

The following task types are currently supported:

Table 1.2 Warehousing Task Types

Source Demand	Task Type
Picking	Picking
Replenishment	Replen
Putaway	Putaway
Transfer	Transfer

Algorithm Types

The following warehousing algorithm types are currently supported:

Table 1.3 Warehouse Algorithm Types

Algorithm Type	Details
Location Find	Used for finding target locations, where the inventory will be transferred to, that are located within functional areas (non-capacity driven), such as shipping, receiving, and so on.
Putaway	Used for finding target locations, where the inventory will be transferred to, that are located within non-functional areas (capacity driven), such as stock.
Picking	Used to find materials to be transferred.
Inspection	Used to determine when inspection of items is required.

Algorithms

The following algorithms are currently supported:

Table 1.4 Warehouse Algorithms

Algorithm Type	Algorithm
Location Find	101 - Find first functional location in first Storage Zone 102 - Find first empty functional location 201 - Merge with same Shipper/Picklist 202 - Merge with same Order 203 - Merge with same Shipping Address 204 - Merge with same Carrier 205 - Merge with same Ship Via

Putaway	101 - Find first storage location 102 - Find first empty storage location 103 - Find first location with same Item 104 - Find first location same Item/same Lot 111 - Find first dedicated storage location 112 - Find first dedicated empty storage location 113 - Find first dedicated location with same Item 114 - Find first dedicated location with same Item/lot
Picking	101 - Pick by Date 102 - Pick by Expire Date 103 - Pick by Lot/Serial 104 - Pick by Location 121 - Pick by Commission Date 122 - Pick by Commission Date Pick Full Packs only 123 - Pick by Comm Date Allow LTF Picks Single Task Only 201 - Pick by SZ Pick Level by Date 202 - Pick by SZ Pick Level by Expire Date 203 - Pick by SZ Pick Level by Lot/Serial 204 - Pick by SZ Pick Level by Location 221 - Pick by SZ Pick Level by Commission Date 222 - Pick by SZ Pick Level Commission Date Pick Full Packs only 223 - Pick by SZ Pick Level Comm Date Allow LTF Packs
Inspection	101 - Always Inspect when inspection Required 102 - Inspect when inspection Required only every X days 103 - Inspect when inspection Required only every X receipts

Warehousing Screens and Browses

- Warehouse Design menu
  - Warehouses
  - Warehouse Areas
  - Storage Zones
  - Storage Zone Lists
  - Work Zones
  - Warehouse Locations
  - Warehouse User Groups
  - Replenishment Lists
  - Replenishment Locations
  - Warehouse User Assignments
  - Warehouse User Work Zone Assignments
- Warehouse Items menu
  - Warehouse Items
  - Warehouse Item Pack Code Exceptions
- Warehouse Flow menu
  - Warehouse Task Types
  - Warehouse Alternate Task Types
  - Warehouse Task Type Assignments
  - Warehouse Transaction Types
  - Material Routings

    - Material Routings Assignments
    - Warehouse Algorithms
    - Warehouse Algorithm Assignments
- Warehouse Activities menu
    - Warehouse Jobs
    - Warehouse Tasks
    - Warehouse Job History
    - Warehouse Pre-Shippers/Shippers
    - Warehouse Production Picklists
    - Warehouse Task History
    - Warehouse Task Delete & Archive
- Warehouse Inventory menu
    - Replenishment Locations
    - Warehouse Location Capacity
    - Warehouse Location Items
    - Warehouse Inventory Detail
    - Warehouse Inventory Transactions
    - Warehouse Serial History
    - Warehouse Serials
    - Warehouse Serialized Inventory
    - Putaway Simulation

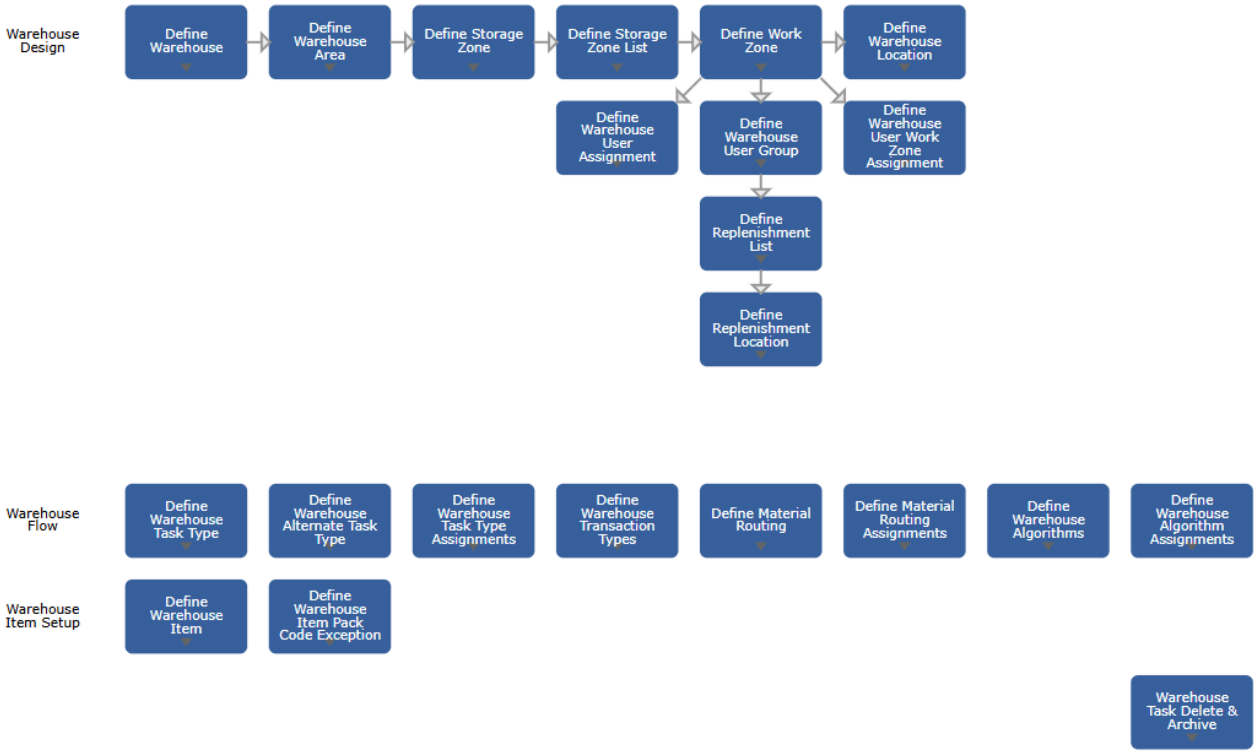
Chapter 2: Setup

This chapter discusses the following topics:

Setup Overview

Warehousing includes extended layout functions that allow you to define a physical warehouse on a very detailed level. Material flow management includes job and task management, put-away, picking, and replenishment logic, and a rules engine and KPI reporting. The following process map shows the setups required for Warehousing.

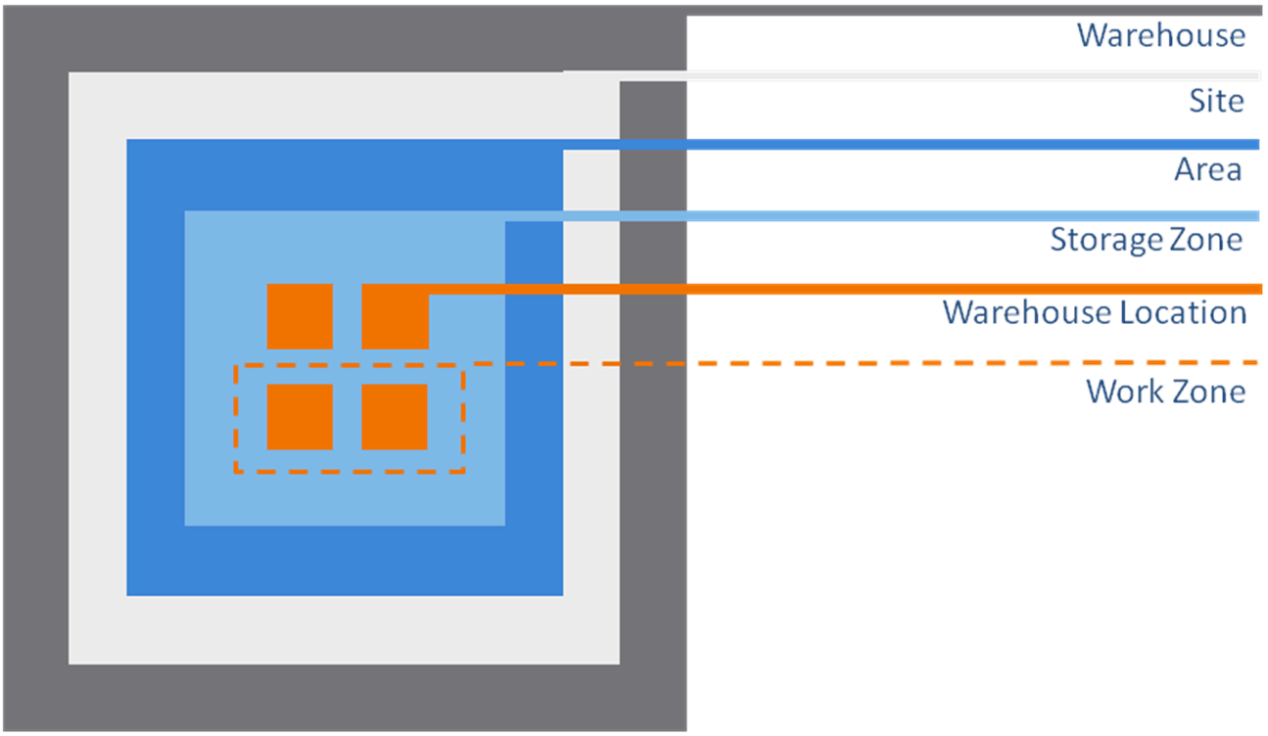
Fig. 2.1 Warehouse Setup Process Map



Warehouse Layout

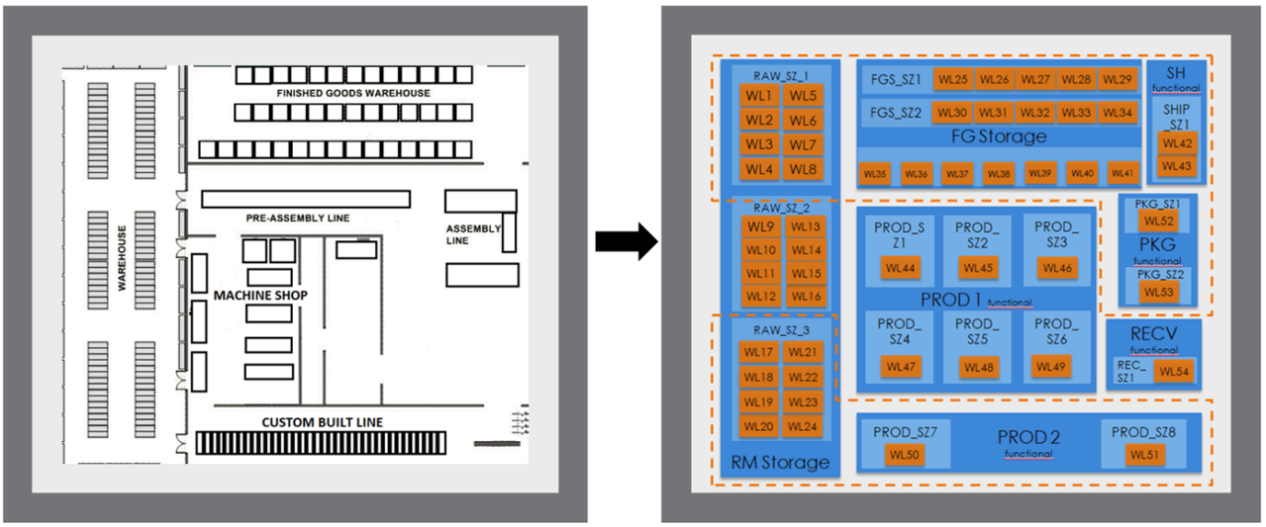
Warehousing provides an advanced system to organize the physical warehouse. QAD provides basic inventory management capabilities through the use of sites and locations.

Fig. 2.2 Warehouse Layout Elements



In Warehousing, users are able to define physical warehouses on a more detailed level, which helps optimize material handling. Using the layout functionality, the user is able to define the layout levels, such as site/domain, warehouses, areas, storage zones, work zones, user groups, warehouse locations, and warehouse items, which work alongside the existing site and location architecture. With these advanced tools, companies have the foundation for organizing complex warehouse management and its inventory movement. These layout levels enable more intelligent, dynamic, and agile material handling. Ultimately, inventory will still be associated with a site and location; however, the additional layout levels will enable better organization.

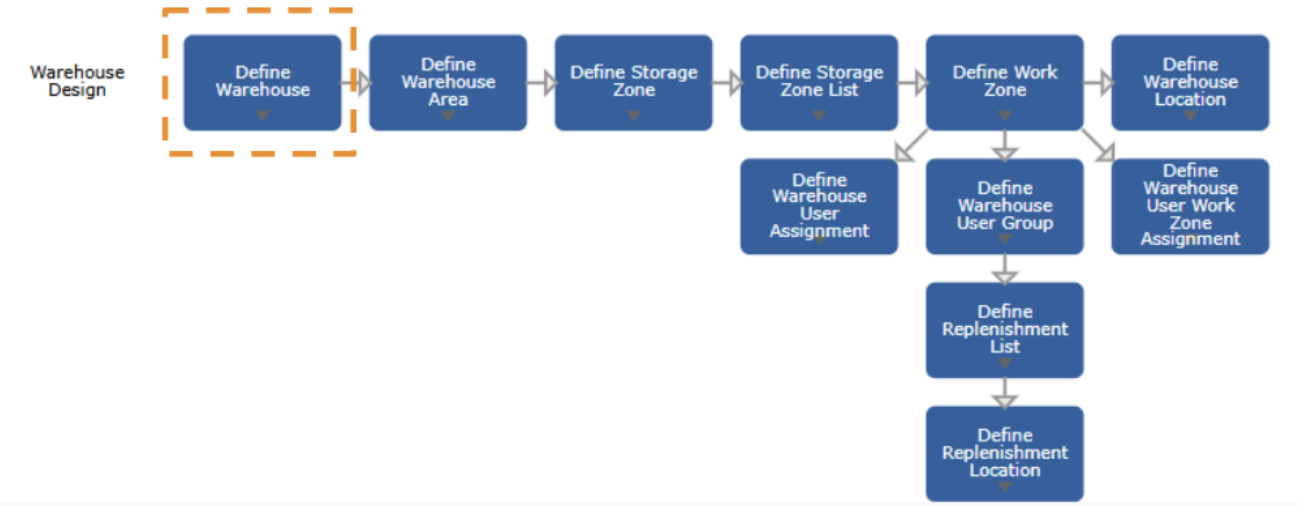
Fig. 2.3 Example of a Warehouse Layout Reflected in Warehousing



The following screens are used to define warehouses and warehouse locations:

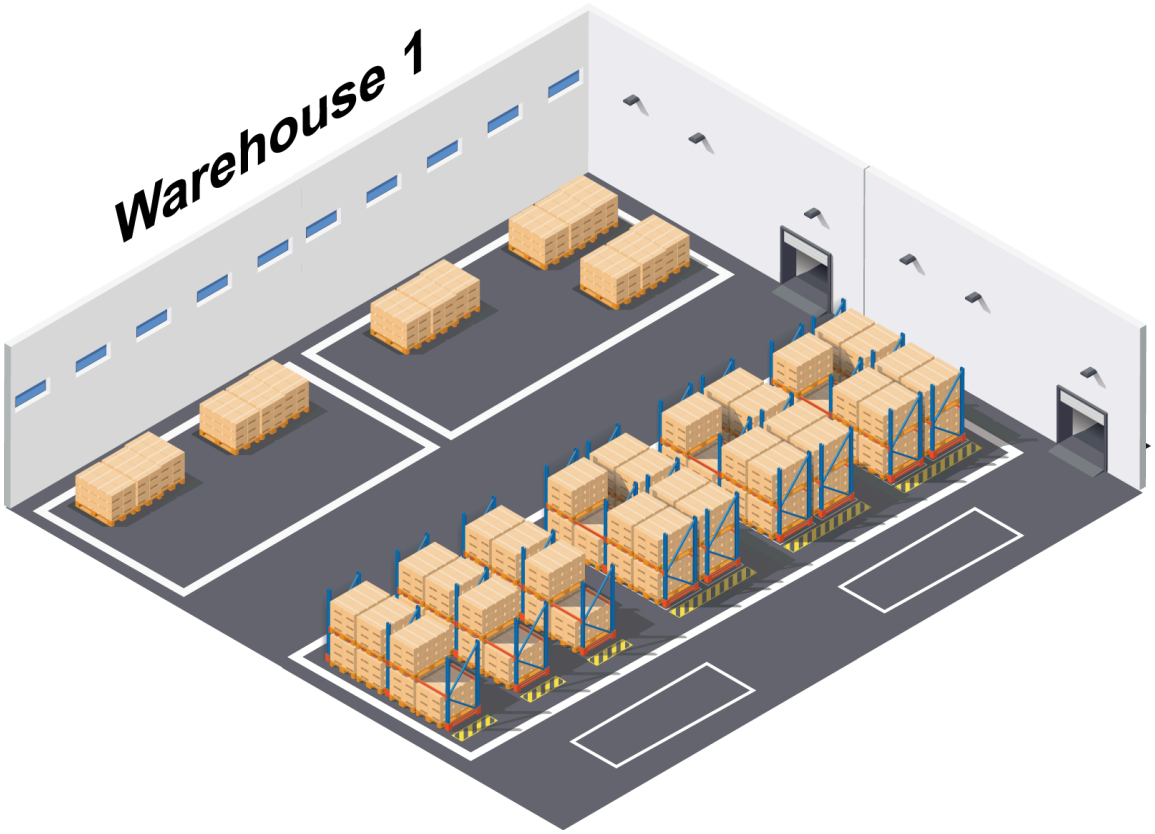
- Warehouses
- Warehouse Areas
- Storage Zones
- Replenishment Lists
- Replenishment Locations
- Storage Zone Lists
- Warehouse Locations
- Work Zones
- Warehouse User Groups
- Warehouse User Work Zone Assignments
- Warehouse Items
- Warehouse Item Pack Code Exceptions

Defining a Warehouse



A warehouse is defined as a physical building in which goods are stored and managed (received, moved, stored, and shipped).

Fig. 2.4 Warehouse Layer



Usually, the concept of the warehouse is similar to the definition of a site. There are use cases where users manage inventory in a single site but in multiple physical buildings. Some of the use cases include:

- Companies that lack space so they require multiple physical buildings.
- Companies that have a dedicated building that stores incoming material and another building for outgoing finished products.
- Companies that leverage 3PL warehouses to handle excess inventory.

These use cases require a single site to simplify order management, costing, planning, and other core business processes.

There are also use cases where companies manage inventory in multiple sites yet the stock is received, stored, and consumed using the same buildings or production resources. Some of the use cases include:

- Companies that run joint venture projects in the same facilities.
- Companies that segregate P&L based on key markets served.
- Companies receiving subsidies for specific product lines.
- Companies that must satisfy specific insurance or industry regulations.

Warehouses

Use Warehouses to define warehouses and associate them to sites. Each warehouse must be linked to at least one site. Users have the option of linking a warehouse to multiple sites.

This function also allows users to activate or deactivate warehouses that are no longer used.

Warehouse. Enter an ID that uniquely identifies the warehouse. When using the warehouse function, you are required to enter an existing warehouse ID to maintain information relating to a specific warehouse.

Description. Optionally, enter a brief description of the warehouse. The description displays in lookups and various reports so that users can identify it.

Address. Enter the address of the warehouse. This field is for reference only.

Note: Addresses for the company are set up using Addresses.

Default Priority. Enter the default priority that is assigned to the tasks in the warehouse. This value is used in cases when Material Routing does not have a priority set.

Complete Option. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality: This field indicates if a transaction must be confirmed or stay unconfirmed when the transaction quantity is changed. In some cases, on RF, a pop-up window appears where this field can be changed. Different setup values are:

- 0 Always complete
- 1 Default to complete
- 2 Default to NOT complete
- 3 Never complete

Fail Option. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality: Indicate if a transaction must be failed when the transaction quantity is changed. In some cases, on RF, a pop-up window appears where this field can be changed. Failing a transaction can have different consequences: create a count task in the source location and change the inventory status of the stock failed. Different setup values are:

- 0 Always fail
- 1 Default to fail
- 2 Default to NOT fail
- 3 Never fail

Fail Status. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality: When the quantity confirmed is less than the expected quantity, you can fail the transaction. When a transaction fails, the system changes the status of the remaining stock in the source location to the Fail Status you define here. The Fail Status must be defined in Inventory Status.

Active. Select the checkbox to activate the warehouse so that it uses all the warehouse functions. Clear the checkbox to deactivate the warehouse.

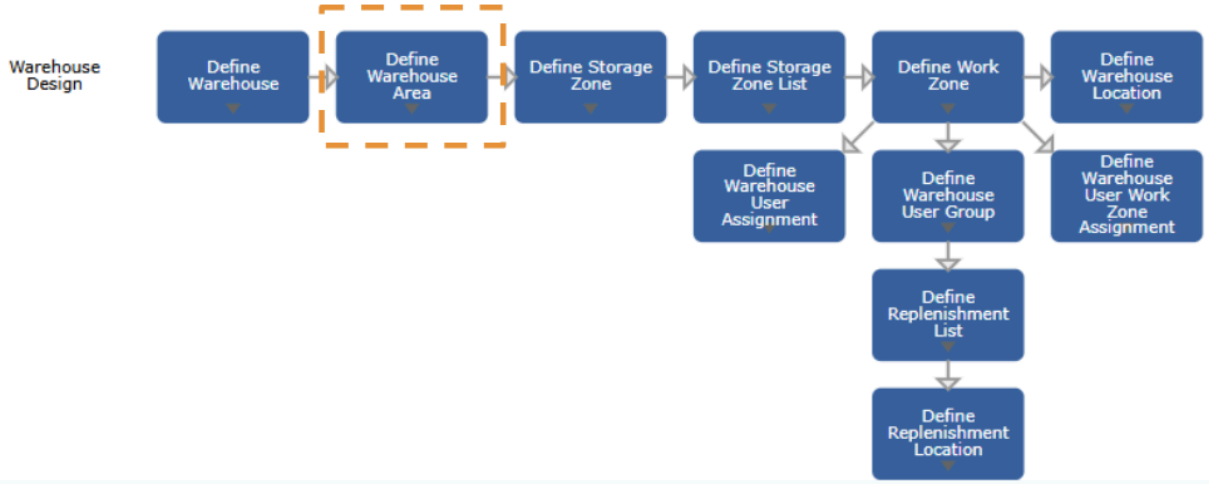
Task Type. Enter the default task type that will be assigned to the tasks in the warehouse. This value is used in cases when Material Routing does not have a Task Type set. It is recommended that you enter a generic task type, such as Transfer. This is a mandatory field.

Bulk Group. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality: Indicates that bulk picklists should be grouped together.

Site. Enter the site that will be linked to the warehouse.

Note: The warehouse can have one or more sites linked to it, and one site may be linked to one or more warehouses. The sites must be for the same domain.

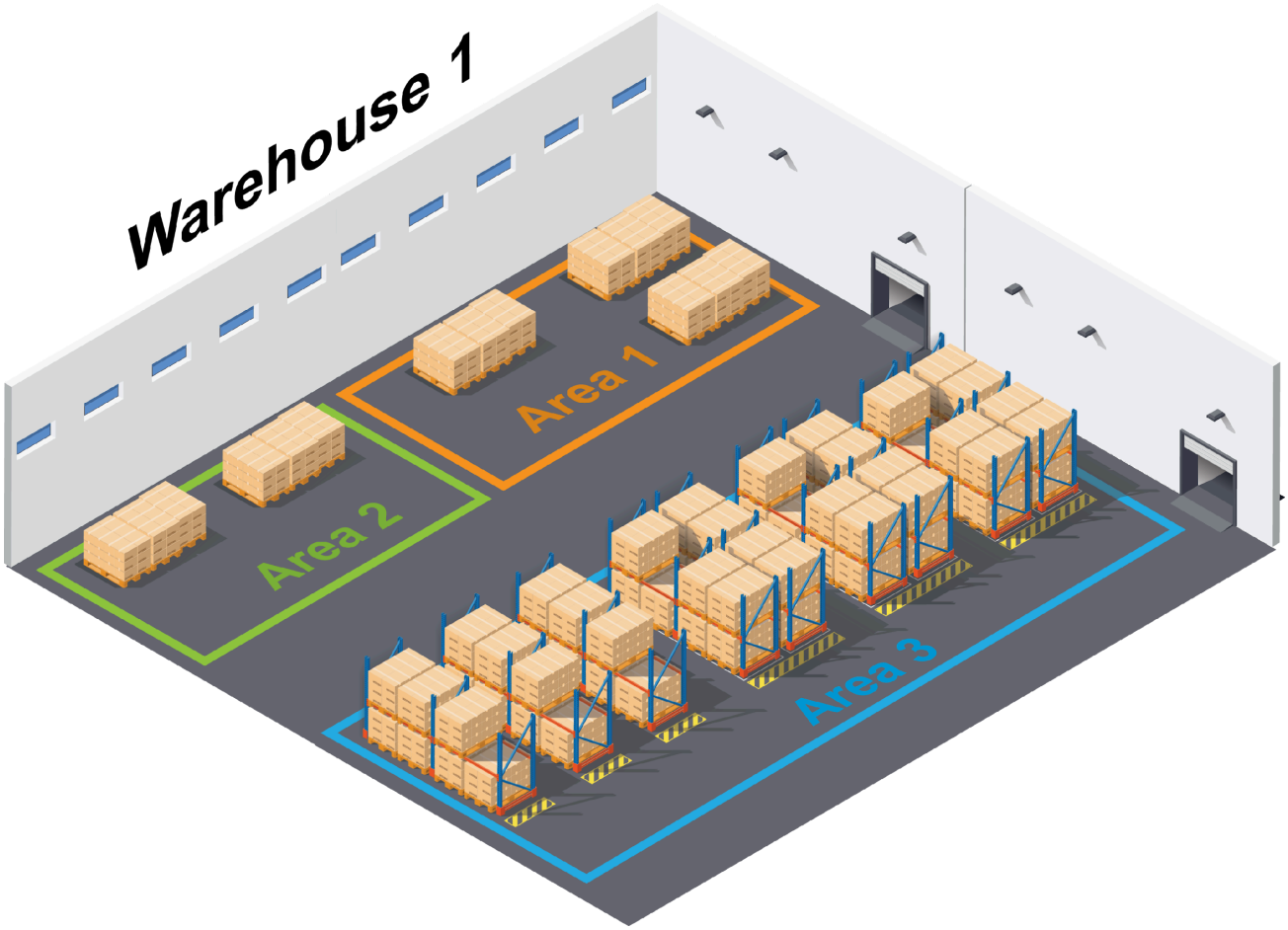
Defining a Warehouse Area



Warehousing allows you to designate warehouse areas, which reflect a physical space in the warehouse where specific actions are performed, such as storing in the storage area or producing items in the production area. This functionality allows users to define how materials move (flow) through the warehouse depending on what type of process is initiated.

Areas can be set as functional or non-functional to indicate if the area is driven by capacity or not. In a non-functional area, inventory might be initially stored for a longer period of time, such as a storage area. In a functional area, inventory is stored temporarily due to the nature of processes in the area, such as a shipping or receiving area.

Fig. 2.5 Warehouse Area Layer



Warehouse Areas

Use Warehouse Areas to define areas and associate them to warehouses. When defining an area, users are able to:

- Specify if the area is non-functional and driven by capacity, such as storage.
- Specify if the area is functional and not driven by capacity, such as shipping, receiving, inspection, and so on.
- Enable or disable issues, receipts, inbound returns, outbound returns, picking, putaway, and mixed statuses for all zones.

Warehouse. Enter the ID that identifies the warehouse you want to update.

Area. Enter an ID that identifies the area you want to modify or create.

Note: You cannot associate an area to multiple warehouses.

Note: You cannot delete an area to which storage zones are assigned. Before deleting a toplevel area layer, all lower layers need to be unassigned or deleted.

Description. Optionally, enter a brief description of the area. The description displays in lookups and various reports so that users can identify it.

Functional. Specify if the area is functional or non-functional:

- Selected. Select the checkbox to define the area as functional and not driven by capacity, such as Shipping, Receiving, Inspection, and so on. In a functional area, the system uses locationfind algorithms to select locations when stock is moved into that area.
- Cleared. Clear the checkbox to define the area as non-functional and driven by capacity, such as storage. In a non-functional area, storage capacity and travel sequence considerations are important to optimize warehouse space and usage of labor in the warehouse. The system uses putaway algorithms to select locations when stock is moved into a non-functional area.

Allow Issues. Specify if inventory can be issued out of the system from locations in this area. Select the checkbox if stock can be issued from locations in this area. Generally, you limit issues to specially designated areas, such as goods-out.

Note: This setting applies to all of the lower-level storage zones for the area. Use Storage Zones to overwrite the default values.

Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

Allow Receipts. Specify if inventory can be received from outside the system into locations in this area. Select the checkbox if stock can be received into locations in this area. Generally, you limit receipts to specially designated areas, such as goods-in.

Note: This setting applies to all of the lower-level storage zones for the area. Use Storage Zones to overwrite the default values.

Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

Allow Inbound Returns. Specify if inventory can be received into locations in this area as part of a returned issue. Select the checkbox if stock returned from a customer can be placed in locations in this area. Generally, you limit incoming returns to specially designated areas, such as goods-out returns or rejects.

Note: This setting applies to all of the lower level storage zones for the area. Use Storage Zones to overwrite the default values.

Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

Allow Outbound Returns. Specify if inventory can be issued from locations in this area as part of a returned receipt. Select the checkbox if stock to be returned to a supplier can be issued from locations in this area. Generally, you limit outgoing returns to specially designated areas, such as goods-in returns or rejects.

Note: This setting applies to all of the lower-level storage zones for the area. Use Storage Zones to overwrite the default values.

Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

Exclude from Picking. Specify if inventory can be excluded from picking. Select the checkbox in order to exclude the area from picking.

Note: This setting applies to all of the lower-level storage zones for the area. Use Storage Zones to overwrite the default values.

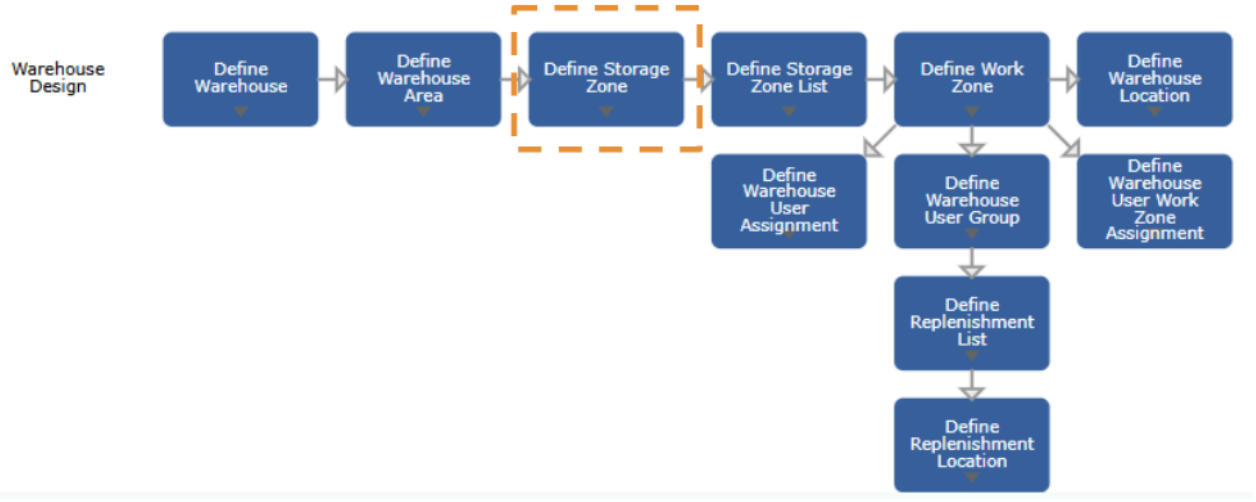
Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

Allow Mixed Status Codes. Specify if the area can contain inventory with a mixture of different status codes. Select the checkbox in order to allow mixed status codes.

Note: This setting applies to all of the lower-level storage zones for the area. Use Storage Zones to overwrite the default values.

Note: The actual setting of assigned zones is displayed in the Current field. For example, if “MIX” is displayed in the Current field for the Exclude from Picking setting, it means that some of the zones assigned to the chosen area allow for picking and other zones do not. If “YES” is displayed in the Current field, it means that all zones under the chosen area are excluded from picking.

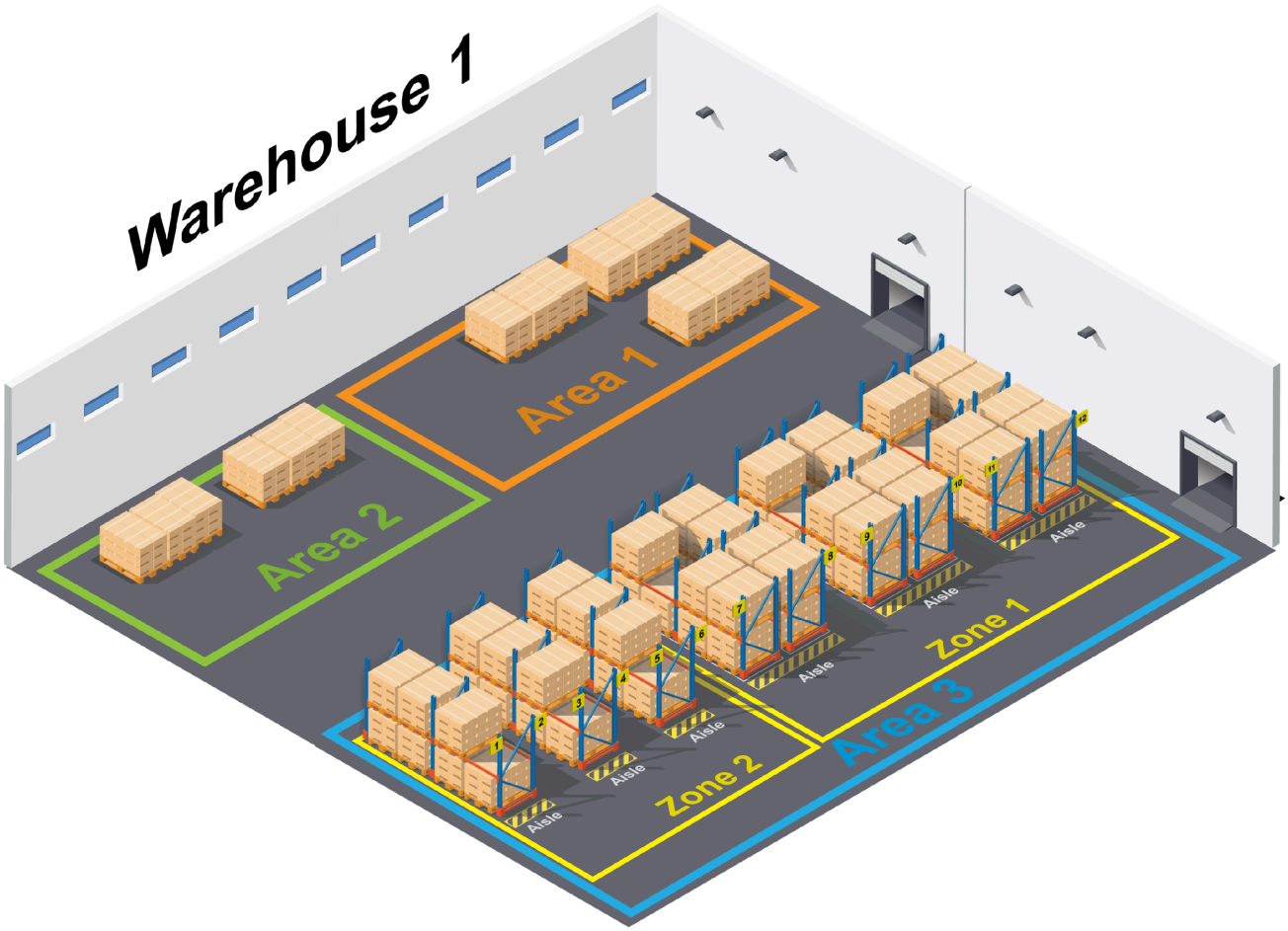
Defining a Storage Zone



A storage zone is a sub-element of an area (storage/throughput/production zones/super markets). When defining a storage zone, users can create a set of requirements and rules within which the movement of inventory is managed.

For example, users can define specific actions to be performed in the storage zone, such as pack decommission. In this use case, when the pack enters this storage zone, the pack is automatically decommissioned. Users can also define specific transactions to be performed inside the storage zone, such as receipt transactions. Or, users can define a storage zone to allow for the mixing of items, lots, or pack codes.

Fig. 2.6 Warehouse Zone Layer



Storage Zones

Use Storage Zones to define storage zones and associate them with warehouses and areas. When defining a storage zone, users are able to:

- Enable or disable issues, returns, inbound returns, outbound returns, picking, and over-picking (including setting the picking level).
- Enable or disable the mixing of inventory status codes, pack codes, items, and lots.
- Enable or disable opportunity counts.
- Establish count frequency.

Note: Whether a storage zone is functional or non-functional is determined by the area it is associated with.

Warehouse. Enter the warehouse you want to update.

Area. Enter the area to which the storage zone belongs.

Storage Zone. Enter the storage zone you want to create or modify. Note the following:

- The storage zone must be unique per warehouse and area.
- The storage zone can be assigned only to one area.
- Whether the storage zone is functional or non-functional is determined by the area it is associated with.

Storage Zone Description. Optionally, enter a brief description of the storage zone. The description displays in lookups and various reports so that users can identify it.

Storage Type. Enter the storage type for the storage zone. The storage type, which is set up in Generalized Codes, allows for the classifying of goods.

For example, the storage type can specify the storage temperature, such as cold, high, or medium. It can be set up to match the warehouse item type and be used to drive the Putaway transaction, such as pallets, boxes, or partials.

Note: The Storage Type is not used by default and requires transaction adjusting in Automation Solutions: Data Collection.

Allow Issues. Specify if inventory can be issued out of the system from locations in this storage zone. Select the checkbox if stock can be issued. Generally, you limit issues to specially designated zones in an area, such as goods-out.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Allow Receipts. Specify if inventory can be received from outside the system into locations in this storage zone. Select the checkbox if stock can be received. Generally, you limit receipts to specially designated zones in an area, such as goods-in.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Allow Outbound Returns. Specify if inventory can be received into locations in this zone as part of a returned issue. Select the checkbox if stock returned from a customer can be placed in locations in this storage zone. Generally, you limit incoming returns to specially designated zones in an area, such as goods-out returns or rejects.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Allow Inbound Returns. Specify if inventory can be issued from locations in this storage zone as part of a returned receipt. Select the checkbox if stock to be returned to a supplier can be issued from locations in this storage zone. Generally, you limit outgoing returns to specially designated zones in an area, such as goods-in returns or rejects.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Exclude from Picking. Specify if inventory can be excluded from picking. Select the checkbox to exclude the storage zone from picking. If you select the checkbox, the other picking parameters are not relevant. Generally, you exclude from picking the storage zones in your functional areas, such as receipt, inspect,

pack and dispatch so that the system does not direct users to those storage zones for sales orders and distribution orders for picking, production, and warehouse replenishment.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Putaway Type. Enter the putaway type, which specifies how the capacity is measured. It can be Unit, Pack, or Volume.

Note: If the associated area is functional (not capacity driven) the Putaway Type is blank and non-updatable.

Allow Mixed Status Codes. Specify if the storage zone can contain inventory with a mixture of different status codes. Select the checkbox to allow mixed status codes.

Note: This value is defaulted from the area that the storage zone is associated with and can be overwritten here.

Allow Splitting. Specify if stock can be picked from locations in the storage zone in situations where the quantity required for the pick does not match the unit of measure in which the item is stocked in the location. Select the checkbox if this unit of measure can be split into smaller units.

For example, if a location contains boxes of an item in quantities of 100 and the required picking quantity is 70, the following table shows how stock is picked when the Allow Splitting and Allow Overpick fields are selected or cleared:

Allow Overpick	Allow Splitting	Result
Selected	Selected	Pick 70 by splitting a box.
Selected	Cleared	Overpick and pick a box of 100.
Cleared	Selected	Pick 70 by splitting a box.
Cleared	Cleared	Nothing is picked from this location.

Decommission Pack. Specify if packs can be decommissioned within the zone. Select the checkbox to enable decommissioning.

An example of a storage zone where the Decomm Pack checkbox is selected, is a supermarket that stores materials for production. In this use case, when material replenishment or a smart transfer is performed, the system automatically performs a pack decommission transaction.

Opportunity Counts. Select the checkbox to specify that staff can be requested to perform cycle counts while they are at locations within this storage zone.

Note: Cycle Counting is not supported in the Adaptive 1.0 release.

Count Frequency. If the Opportunity Counts checkbox is selected, enter the frequency in days with which opportunity counts can be initiated. For example,

- Enter 0 to allow an unlimited number of opportunity counts.

- Enter 1 to set the opportunity count frequency to once a day.
- Enter 2 to set the opportunity count frequency to every two days.

The setting at storage zone level defaults to individual locations within each zone.

At the Warehouse Locations level, this field is used only if opportunity counts are in use for the zone to which this location belongs.

The system stores the last count date in the Last Opportunity Count field in Warehouse Locations. The system specifies that a count be performed only when the last count date in the Last OPC field plus the number you enter in the Count Frequency field is less than or equal to today. Otherwise, a count does not occur.

The following provides three examples of when the system counts, based on the number of days you enter:

- You set the frequency to 3. A count was performed four days ago. Since that day plus 3 is less than today, the system performed a count yesterday.
- You set the frequency to 1. A count was performed yesterday. Since yesterday plus 1 day is less than or equal to today, the system counts again today.
- You set the frequency to 0 (zero). The system specifies that a count be performed each time warehouse staff pick from the location and the threshold goes below the OPC count. This is because the last date of the count plus 0 equals the last date, which is always less than today.

Note: Cycle Counting is not supported in the Adaptive 1.0 release.

Allow Overpick. Specify if you can pick more stock from locations in this storage zone than specified in the Task. Select the checkbox if overpicking is allowed.

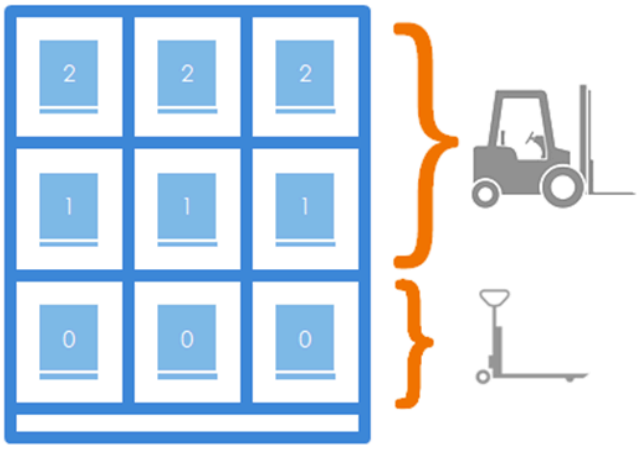
Note: This field works in conjunction with the Allow Splitting field to control whether stock can be picked from locations in the storage zone in situations where the quantity required for the pick does not match quantity on the Serial in which the item is stocked in the location.

For example, if a location contains boxes of an item in quantities of 100 and the required picking quantity is 70, the following table shows how stock is picked when the Allow Splitting and Allow Overpick fields are selected or cleared:

Allow Overpick	Allow Splitting	Result
Selected	Cleared	Pick 70 by splitting a box.
Selected	Cleared	Overpick and pick a box of 100.
Cleared	Selected	Pick 70 by splitting a box.
Cleared	Cleared	Nothing is picked from this location.

Picking Level. Assign a Picking Level (rack level) to the storage zone. The picking level refers to the vertical position on a storage rack and whether it is a bottom, middle, or top shelf.

Fig. 2.7 Picking Level



Storage Pack Code. Specify the preferred pack code for the storage zone. For example, if items are stored in a specific bin or on a specific pallet in this zone, you would enter the pack code for that bin or pallet. This field only indicates which pack code is preferred. The system does not restrict the storage zone to the pack code that is entered.

Storage Pack UM. Specify the target pack UM for the storage zone.

Allow Mixed Pack Storage. Specify if mixed pack storage is permitted in this storage zone. This setting allows users to standardize a particular storage zone or if a mix of different pack codes can be stored in the same location that belongs to the storage zone. Select the checkbox to allow mixed pack storage.

Allow Mixed Items Storage. Specify if mixed items storage is permitted in this storage zone. This setting allows users to standardize a particular storage zone or if a mix of different item numbers can be stored in the same location that belongs to this storage zone. Select the checkbox to allow mixed items storage.

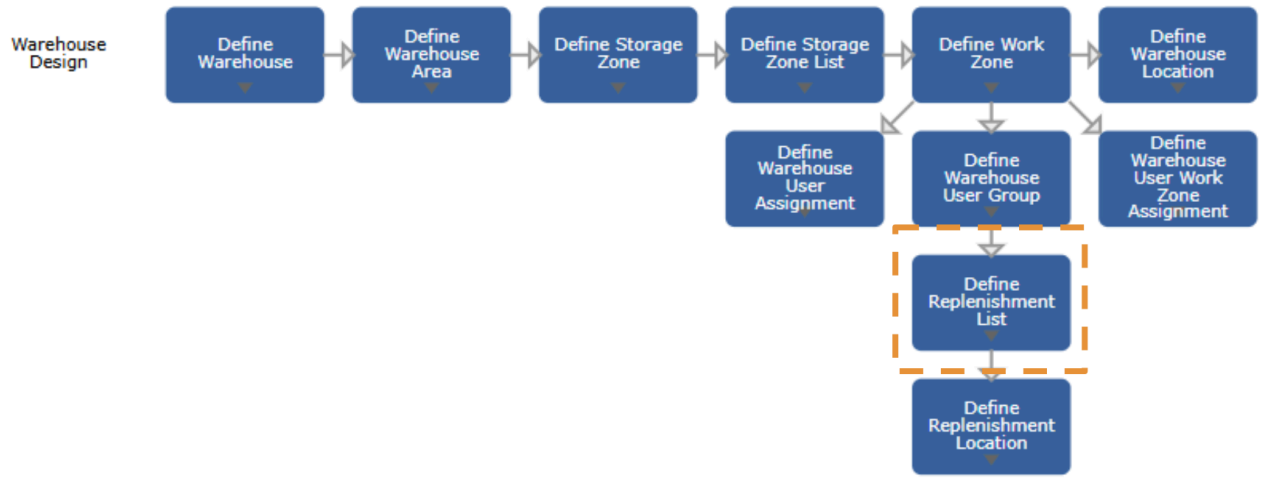
Allow Mixed Lots Storage. Specify if mixed lots storage is permitted in this storage zone. This setting allows users to standardize a particular storage zone or if a mix of different lots can be stored in the same location that belongs to this storage zone. Select the checkbox to allow mixed lots storage.

Remove Lot. Select the checkbox to remove the inventory lot (set to blank) when it is transferred into this storage zone.

Defining Groups of Target Storage Zones

Replenishment Lists

Use Replenishment Lists to create or modify a replenishment list.



Replenishment Lists allow you to create a sequential list of storage zones that is used during the replenishment process to determine where to pick goods from.

Warehouse. Enter the ID that identifies the warehouse you want to update.

Replenishment List. Enter the name of the replenishment list that you want to create or modify. The replenishment list allows you to group storage zones in a sequential list by priority to determine where to pick goods from to replenish specific locations.

Description. Optionally, enter a brief description of the replenishment list. The description displays in lookups and various reports so that users can identify it.

Ignore Sequence. Indicate if you want the system to follow the sequenced list of storage zones or if you want the system to ignore the sequence.

This setting is important when inventory is picked by Commission Date, Expiry Date, or similar requirement.

- Selected. Select the checkbox to ignore the sequence and treat the list as a generic group. This ensures that rules like FIFO or FEFO are not broken because of the sequence.
- Cleared. Clear the checkbox to follow the sequenced list of storage zones. This can cause a problem when inventory, which matches the requirement better but is located in a storage zone at the bottom of the list, is considered last while inventory from a storage zone higher on the list is picked first.

Sequence. Enter the sequence number for the storage zone. The sequence number indicates the order that the system searches storage zones in order to pick inventory for the replenishment. The lowest sequence number is the first storage zone that the system searches.

To make it easier to add steps within the sequence later, standard practice is to number the sequences as 10, 20, 30 rather than 1, 2, 3.

Note: Each sequence number must be unique. You cannot list the same storage zone on two different sequences, but you can add the same storage zone to multiple storage lists. The sequence is not considered if the Ignore Sequence checkbox is selected.

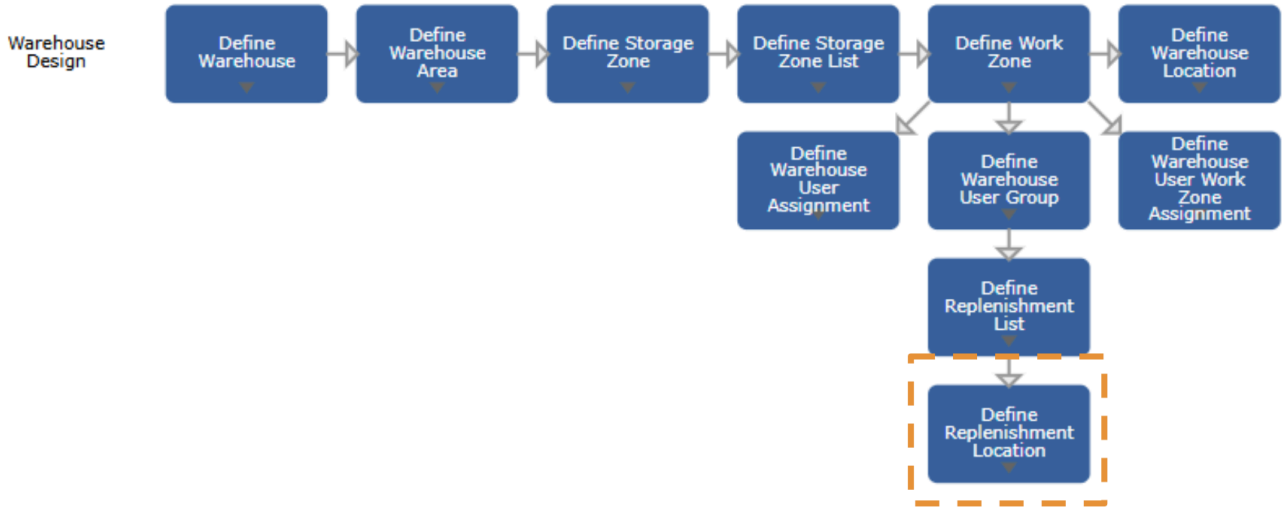
Warehouse. Enter the warehouse.

Storage Zone. Enter the storage zone.

Area. The area is automatically populated based on the warehouse and storage zone that is entered.

Replenishment Locations

Use Replenishment Locations to link a replenishment list with items, storage zones, and warehouse locations and to define the replenishment settings.



When defining the replenishment settings, you can:

- Specify the start and end dates the replenishment can occur.
- Specify the replenishment point, which is the quantity in stock that triggers the replenishment to occur.
- Specify the maximum quantity that can be replenished.

Warehouse. Enter the warehouse you want to link to the replenishment list.

Site. Enter the site you want to link to the replenishment list

Area. Enter the area you want to link to the replenishment list.

Storage Zone. Enter the storage zone ID you want to link to the replenishment list.

Warehouse Location. Optionally, enter the name of a warehouse location you want to link to the replenishment list. If left blank, the system considers the settings for the whole storage zone.

Item. Optionally, enter the item number you want to link to the replenishment list. The item is used to generate Tasks by the Replenishment Request action. If left blank, the record is considered for Task creation generated by Replenishment Requests action. Most reports can be selected by item number.

Replenishment Type. Enter a replenishment type, such as pallet, loose, or boxes. This is used to group items together with the same replenishment requirements. Replenishment can then be specified for a group of items or for an individual item. Leave this field blank if the item does not belong to a particular

replenishment type. This setting is used when the Replenishment Locations function and the Replenishment Requests action are performed.

Replenishment List. Enter the name of the Replenishment List to be used by replenishment functions. Use Replenishment Lists to create a replenishment list.

Replenishment UM. Enter the UM to use for replenishment.

Start Date. Enter the first date that the replenishment should be carried out. When a date is entered in this field, this record cannot be used to generate Tasks before that date. If left blank, the replenishment can occur at any time. This date is used by the Replenishment Requests action found in the Replenishment Locations browse.

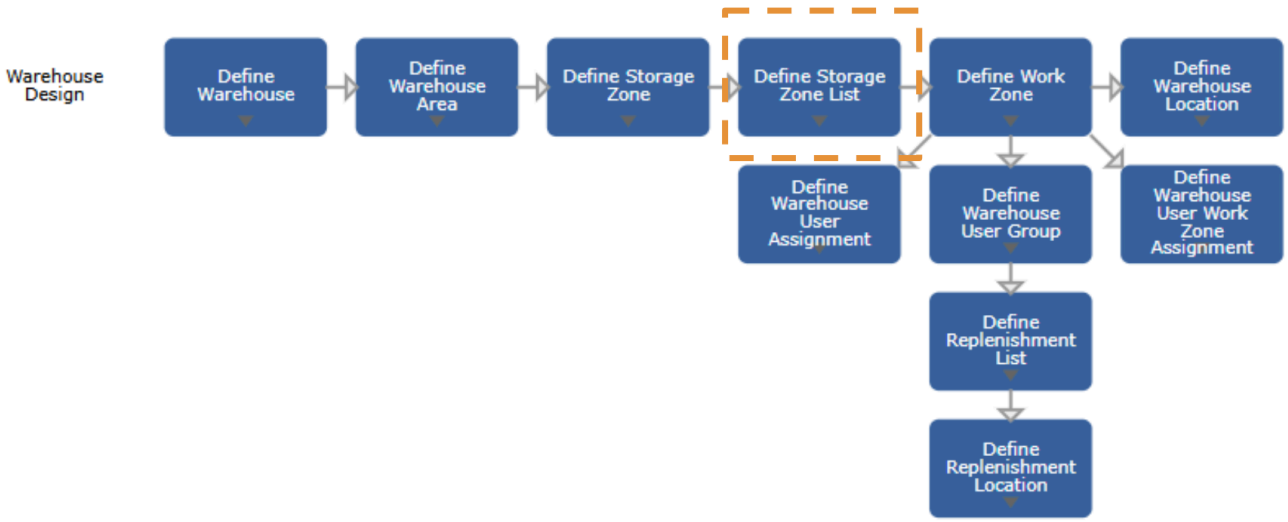
End Date. Enter the last day the replenishment can be carried out. When a date is entered in this field, this record cannot be used to generate Tasks after that date. If left blank, the replenishment can occur without any deadline. This date is used by the Replenishment Requests action found in the Replenishment Locations browse.

Replenishment Point. Enter the quantity of stock at which the location should be replenished. For Task creation, this point can be adjusted using Replenishment Requests action.

Maximum Quantity. Specify the maximum quantity by which the location or item may be replenished. Leave this field blank to allow any quantity. This value is only considered when creating Tasks in Replenishment Requests action.

Storage Zone Lists

Use Storage Zone Lists to create a sequenced list of storage zones. During the putaway process, the system uses this list of storage zones to find the preferred location for the items to be put away.



For the system to use the storage list for the putaway transactions, it is required that you assign the storage list to an item in Warehouse Items. When attaching a storage list to an item in Warehouse Items,

you select the required list by entering its name and based on that assignment, the putaway algorithms find a location within these storage zones.

Each storage list must have at least one storage zone assigned with an associated area. Users are able to assign the storage zones in a certain order using the Sequence field.

Warehouse. Enter the warehouse you want to update.

Storage List. Enter the name of the storage zone list.

Description. Enter a description of the storage zone list. Optionally, include more details and explain the use or purpose of the list.

Sequence. Specify a number that indicates the order in which the system should use this storage zone in this list of storage zones. The lowest sequence number is the first storage zone that the system uses. You can add multiple sequence numbers, each with a different associated storage zone. The sequenced list of storage zones is later used as a Putaway preference.

To make it easier to add steps within the sequence later, standard practice is to number the sequences as 10, 20, 30 rather than 1, 2, 3.

Note: Each sequence number must be unique. You cannot list the same storage zone on two different sequences, but you can add the same storage zone to multiple storage lists.

Storage Zone. Enter the name of the storage zone that you want to add to the list.

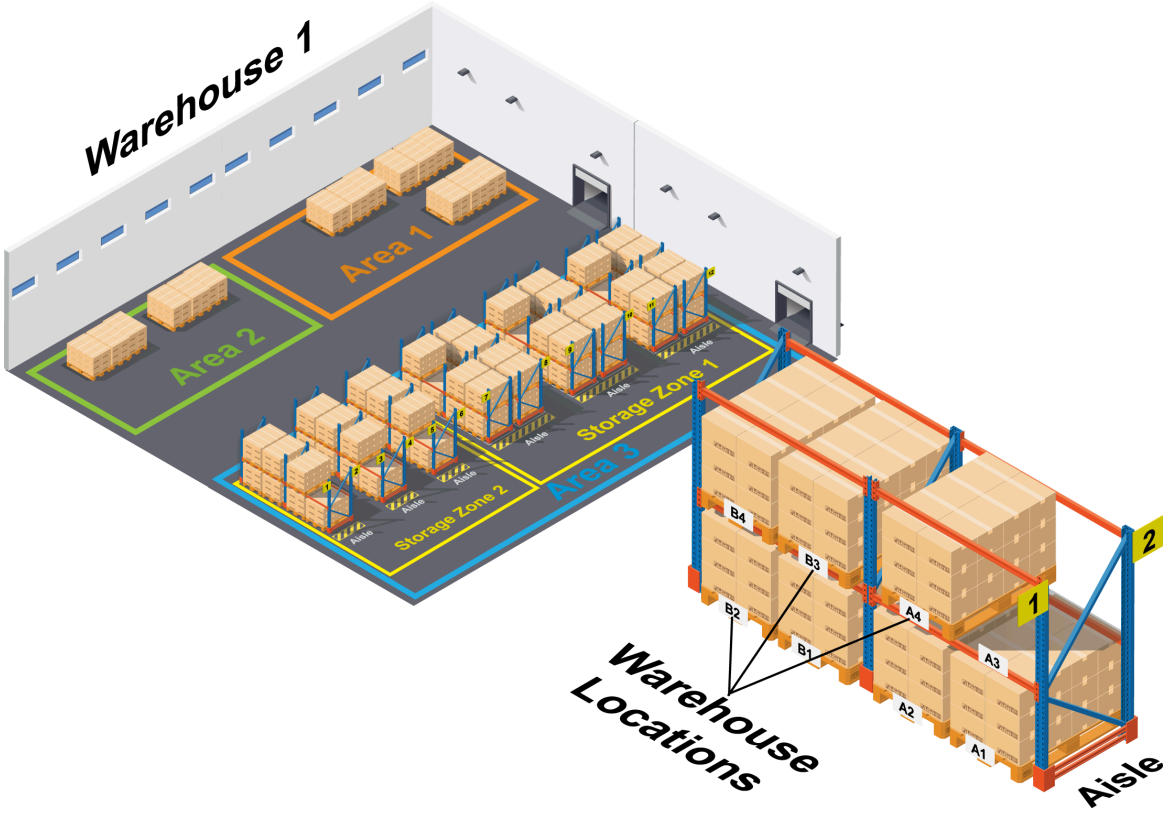
Area. Enter the name of the area to which the storage zone belongs.

Area Description. This field displays the description of the storage zone.

Warehouse Locations

Warehousing allows you to define warehouse locations, which are used to specify a location within a particular site where inventory is stored. As shown in the graphic below, a warehouse location can be an aisle, rack, or shelf, bin, and so on.

Fig. 2.8 Warehouse Locations Layer



Warehouse Locations

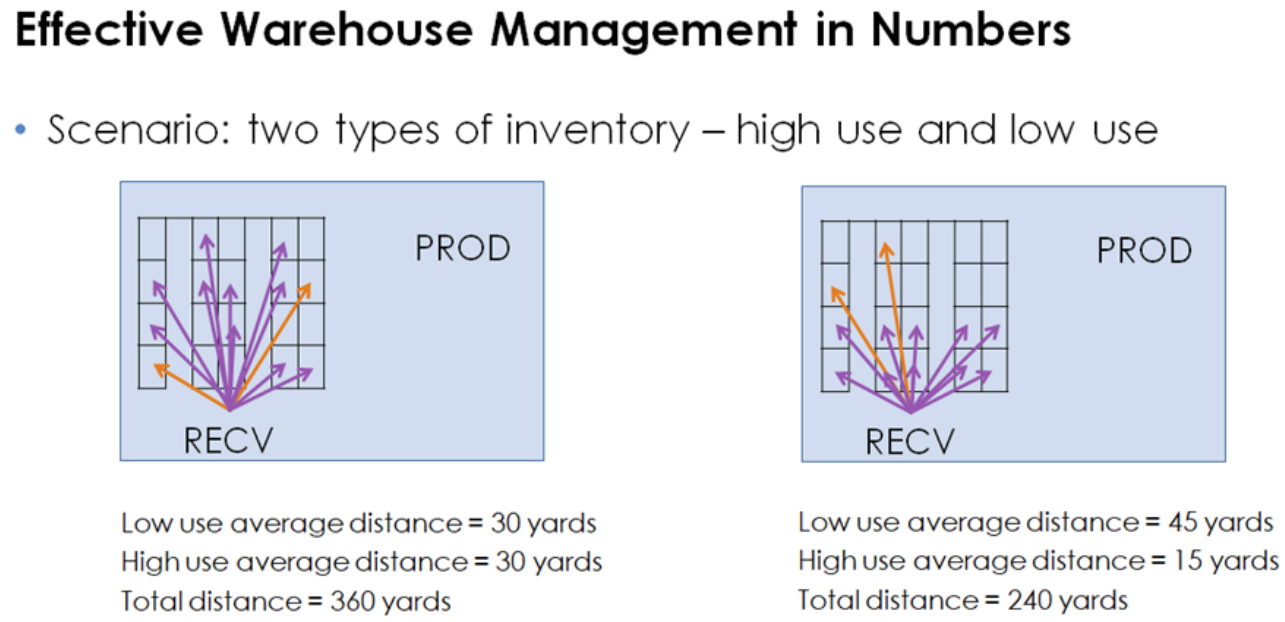
Use Warehouse Locations to create or modify a warehouse location. When defining a warehouse location, users are able to:

- Assign the location to a specific warehouse and storage zone.
- Determine if the location is dedicated to a specific item and pack code or if it is for general use.
- Specify where the location physically exists, whether it is an aisle, rack, or shelf.
- Specify the dimensions of the location (length, width, height, volume, maximum weight).
- Specify how the capacity for the location is determined, whether it is by number of units, packs, or by volume. Capacity is only taken into consideration if the warehouse location is within a non-functional area that is driven by capacity, such as stock.
- Specify an Alternate ID for the location. This unique ID is assigned to a location so that warehouse managers can create “hidden” location values. This ensures that when employees confirm the movement of inventory, they are scanning location tags instead of manually entering the known location names.
- Specify Stage In location. This represents a temporary warehouse location, which exists in the system, where inventory resides prior to arriving in the current location.
- Specify Stage Out location. This represents a temporary warehouse location, which exists in the system, where inventory resides after it is moved out the current location.
- Specify the Popularity of the location, which indicates the ease of access to the inventory. The system matches the popularity of items with the popularity of locations. For example, fastmoving items can be set up to be stored in the most accessible locations.

  Note: Popularity is not yet supported. This is for future use.

- Assign a travel sequence number to this location, which is used in conjunction with the numbers assigned to other locations to define a travel sequence within the warehouse. This feature allows you to minimize travel within the warehouse because the system searches for the location that has a travel sequence closest to the value of the current location's travel sequence.
- While performing the activities in the warehouse, the system provides the activities to the user in an intelligent way by sequencing them in an effective manner. This means that the total travel distance is minimized and inventory is moved in the most optimized way.

Fig. 2.9 Travel Sequence Numbers



The following browses are associated with Warehouse Locations:

- Warehouse Locations
- Warehouse Location Capacity
- Warehouse Location Items

Warehouse. Enter the warehouse that you want to update.

Warehouse Location. Enter a warehouse location that you want to create or modify.

A warehouse location specifies the physical location within a particular site where inventory is stored.

Every item in inventory is associated with a standard QAD location. The Location must be specified on every inventory transaction, issues, receipts, transfers, and counts. Warehouse Locations naming conventions are used only within the Warehousing.

When assigning locations, keep in mind that they are alphanumeric and sorted in alphabetic sequence. For example, if you set up locations 1, 2, and 10, they will sort as 1, 10, 2. Well-devised schemes can make life easier in the stockroom.

A Warehouse Location must be linked to at least one specific location master in ERP.

Note: The lookup displays the Location that currently exists in ERP. If you enter a location that is not listed, the system will display a message asking if you want to create the specified location. Click Yes to automatically create the location master in ERP.

Description. Enter a short description of the warehouse location, usually describing where to look for it. The description prints on most reports, as space permits.

Dedicated. Select this checkbox to indicate that this warehouse location is dedicated to store a specific item number, specific pack, specific UM or a combination of them. You are able to specify which item is stored in the warehouse location in the Item Assignments panel of this screen. If you select this checkbox, locations are only processed by Putaway Algorithms that include looking for Dedicated locations, otherwise these locations are not considered for putaway requests. Locations marked as Dedicated are only processed by Putaway Algorithms that include looking for Dedicated locations, otherwise these locations are not considered for putaway requests.

Active. Select this checkbox to activate the warehouse location.

Note: When a warehouse location is inactive, the location is not considered for Task creation and it cannot be used by Data Collection transactions.

Storage Zone. Enter the name of the storage zone to which the warehouse location belongs.

Note: If a warehouse location is assigned to a particular storage zone, then the rules for the zone apply for all transactions being processed there.

Work Zone. Specify the name of the work zone to which the warehouse location belongs.

Note: When a warehouse location is assigned to a particular work zone, then only the user groups assigned to it are able to perform transactions within those locations. If transacting between locations, a user must be assigned to the From and To work zones in order to perform the task.

Warehouse Location Type. Specify the storage type for the warehouse location. The storage type, which is set up in Generalized Codes, allows for the classifying of goods.

For example, the warehouse location type can be set up to match the warehouse item type and be used to drive the Putaway transaction, such as pallets, boxes, or partials.

This field is used for reference purposes only. The system does not perform any validation on this field. It can be used to suggest a certain behavior for material movements.

Alternate ID. Enter a unique ID for the warehouse location. This unique ID is assigned to a location so that warehouse managers can create hidden location values. This ensures that when employees confirm the movement of inventory, they are scanning location tags instead of manually entering the known location names.

The Alternate ID must be a unique string, and cannot be equal to any other Location, Warehouse Location, or Alternate ID.

Travel Sequence. Optionally, enter a travel sequence number to this location. This is used in conjunction with the numbers assigned to other locations to define a travel sequence within the warehouse.

This feature allows you to minimize travel within the warehouse because the system searches for the location that has a travel sequence number closest to the value of the current location's travel sequence number.

You can assign the same travel sequence number to multiple warehouse locations but it is recommended that the sequence numbers be unique for each warehouse to ensure the best optimization.

Stage In Location. Specify the stage in location, which represents a temporary Warehouse Location where inventory resides prior to arriving in the current location.

The stage in and out locations must be defined as warehouse locations.

Stage Out Location. Specify the stage out location, which represents a temporary Warehouse Location where inventory resides after it is moved out the current location.

Stage in and out locations are useful when certain fork-lift trucks or engines are used within the aisle while other equipment is used from another area to the aisle itself. For example, when you make a putaway, you must find the destination location, but the RF terminal shows the movement from the receipt area to the stage in first and then another task is created to move goods from the stage in to the destination location.

For issues, when picking goods out of the location to the dispatch area, the first movement is from the location to the stage out and the second is from the stage out to the dispatch area.

The stage in and out locations must be defined as warehouse locations.

The stage in and out locations must be defined as warehouse locations in the system.

Aisle. Optionally, specify the physical location in the aisle. This field is used for informational purposes only.

Rack. Optionally, specify the physical location on the rack. This field is used for informational purposes only.

Shelf. Optionally, specify the physical location on the shelf. This field is used for informational purposes only.

Popularity. Popularity is an indicator describing turnover. Enter a code to define the relative priority for choosing this location when the system has a choice of locations in which to put away inventory. Low alphanumeric values for the Popularity code indicate greater popularity. For example, a popularity code of AAA indicates a popular location that is easily accessed, while a code of ZZZ indicates an unpopular location that is perhaps difficult to access.

You typically put fast-moving stock in the low-value Popularity locations, and slowmoving stock in the higher ones.

You can base the popularity codes on an ABC analysis of the number of transactions. Use Item ABC Status Update to review ABC details.

You can also assign popularity codes to items in Warehouse Items.

Last Opportunity Count. Displays the date the latest count was performed in this warehouse location.

Total Counts. Displays the total number of opportunity counts performed in this warehouse location.

Allow Mixed Dates. Specify if inventory with mixed dates, such as expiration or commission dates, can be stored in this location.

If this checkbox is selected, then if any inventory has different dates, such as commission dates, the system allows the items to be stored in this location. If this checkbox is cleared and Item A has a different

commission date than Item B, the system will not allow them to be stored in this location together. During the putaway process, the system will search for the next location where the other item can be stored.

Allow Mixed Lot/Serial ID. Specify if more than one Lot or Serial ID may be stored in this warehouse location. Select the checkbox to allow the receipt or transfer of more than one lot or Serial ID.

Note: If you clear the checkbox, you will prevent the receipt or transfer of more than one lot or serial ID in this location. This is especially useful in situations where ingredients are stored in tanks or silos and must never mix. Or, when different dye lots, potencies, or grades of an item should not be mixed.

Site. Enter a site. This field is mandatory and allows users to link a specific warehouse location with a site.

A warehouse location can be linked to multiple site and location combinations.

Capacity Utilization Option. Specify the capacity utilization option for this warehouse location. The system uses this information to calculate the capacity using simple quantities by unit of measure or using available volume remaining. Select from the following options:

- Unit. When Unit is selected, the capacity is measured by the number of items in a warehouse location. You can also specify the item number, UM, and Utilization %.
- Pack. When Pack is selected, the capacity is measured by the number of master serial IDs in a warehouse location. You can also specify the item number, pack code, and Utilization %.
- Blank. If the warehouse location belongs to a functional area, the capacity utilization option is blank and cannot be updated and in such cases, the capacity does not get calculated.

Current Utilization %. Displays the current utilization %, which is automatically generated by comparing the maximum capacity with the inventory on hand. This field is for reference only.

Preferred Pack Code. Optionally, specify the preferred pack code that can be stored in this warehouse location.

For example, if items are stored in a specific bin or on a specific pallet in this location, you would enter the pack code for that bin or pallet. This field only indicates which pack code is preferred. The system does not restrict the storage zone to the pack code that is entered.

Maximum Weight. Enter the maximum weight that can be stored in this warehouse location. For example, if this location is a shelf or rack that has a maximum load capacity, you would enter that specification in this field.

Current Weight. Displays the current weight in the warehouse location. This is an automatically generated value calculated by comparing the maximum weight with the inventory on hand. This field is for reference only.

Weight UM. Enter the unit of measure in which the weight is displayed.

Enforce Weight. Select the checkbox to prevent users from transferring items/pallets that weigh more than maximum weight.

Length. Optionally, enter the length of the warehouse location.

The location dimensions are used for reference purposes only, so you do not have to enter values. If you do enter dimensions, the values are all in terms of the dimensional unit of measure that is specified in the Size UM field, below the three dimensions.

Height. Optionally, enter the height of the warehouse location.

The location dimensions are used for reference purposes only, so you do not have to enter values. If you do enter dimensions, the values are all in terms of the dimensional unit of measure that is specified in the Size UM field, below the three dimensions.

Width. Optionally, enter the width of the warehouse location.

The location dimensions are used for reference purposes only, so you do not have to enter values. If you do enter dimensions, the values are all in terms of the dimensional unit of measure that is specified in the Size UM field, below the three dimensions.

Size UM. Enter the unit of measure for all the dimensions entered in the Length, Height, and Width fields.

Maximum Volume. This field displays the total volume of the warehouse location. The total volume is calculated based on the parameters entered in the Length, Height, and Width fields. If necessary, you can manually enter a value and overwrite the calculation. This is a mandatory field if the Capacity Utilization Option is set to Volume.

Current Volume. Displays how much volume is currently being used in this location.

Volume UM. Enter the unit of measure for the location volume.

Enforce Volume. Select the checkbox to prevent users from transferring inventory into this location if it exceeds the maximum volume entered in the Volume field.

Item. Enter the item number if a specific assignment for this warehouse location is required. You can leave this field blank if this warehouse location is used for general use.

If the Dedicated checkbox is selected, enter the item number that is stored in this warehouse location.

If the Capacity Utilization Option field is not blank, the item number entered in the field defines the specific rules for capacity calculation. Capacity Calculation logic works in the following manner:

- Packs. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and Pack Code, Item itself, Pack Code itself, or blank (if the location is set to general use).
- Units. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and UM, Item itself, UM itself, or blank (if the location is set to general use).

Multiple combinations of Item Number, Pack Code/UM and Utilization % can exist.

Description. This field displays the description of the item.

Pack Code/UM. Specify the pack code or unit of measure for the item if a specific assignment for this warehouse location is required. You can leave this field blank if this warehouse location is used for general use.

If the Dedicated checkbox is selected, enter the pack code of the item that is stored in this warehouse location.

If the Capacity Utilization Option field is not blank, the pack code entered in the field defines the specific rules for capacity calculation. Capacity Calculation logic works in a following manner:

- Packs. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and Pack Code, Item itself, Pack Code itself, or blank (if the location is set to general use).
- Units. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and UM, Item itself, UM itself, or blank (if the location is set to general use).

Multiple combinations of Item Number, Pack Code/UM and Utilization % can exist.

Utilization %. Enter the utilization % to indicate how much space is taken by a certain Item Number, Pack Code/UM, or combination of both.

For example, if this location can only store 2 pallets (Pack Code PL01), the Utilization % should be 50% (100% / 2) (Pack Code BX01), the Utilization % should be 2% (100% / 50). If the same location can store 50 boxes.

Capacity Calculation logic works in the following manner:

- Packs. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and Pack Code, Item itself, Pack Code itself, or blank (if the location is set to general use).
- Units. The system checks the inventory that is being transferred into warehouse locations and finds a location that has a matching combination of Item and UM, Item itself, UM itself, or blank (if the location is set to general use).

Note: Under most circumstances, the Utilization % should be entered as a number between .01 and 100. In the special scenario when the warehouse location record has Capacity Utilization Option = Pack and the Dedicated checkbox is selected, the system allows the Utilization % be set to blank to specify the warehouse location to item association, without requiring capacity input.

Warehouse Locations> Individual > Refresh Current Capacity

Use the Refresh Current Capacity individual action in Warehouse Locations to update the Current Utilization %, Current Weight, and Current Volume levels for warehouse locations.

Additionally, capacity is recalculated when any warehousing transaction, which transfers inventory from or into a warehouse location, is performed.

Select the required record from the Warehouse Locations browse. Go to Actions > Individual > Refresh Current Capacity. The system prompts a message confirming the capacity recalculation.

Warehouse Locations > Bulk > Refresh Current Capacity

Users can run this action at any time for a range of warehouse locations to recalculate the Current Utilization, Weight, and Volume based on the inventory available at these locations.

Search Criteria. Displays the search data entered in the Warehouse Locations browse filter.

Warehouse. Enter the warehouse to which the Warehouse Locations are linked. If you apply a filter where Warehouse equals [value] in the browse, that Warehouse will be defaulted automatically. This field is mandatory.

Display Location Details. Select this checkbox to display the locations grid, where you are able to visualize the warehouse location details.

Search Button. Click the Search button to populate the Locations grid with the information entered in the Criteria and Options panel. If you select the Display Locations Details checkbox, the Locations Grid appears.

Selection Checkbox. Select the required warehouse location to be updated.

Site. Displays the site.

Warehouse. Displays the warehouse.

Area. Displays the warehouse area.

Storage Zone. Displays the warehouse storage zone.

Work Zone. Displays the warehouse work zone.

Warehouse Location. Displays the warehouse location.

Current Utilization %. Displays the current utilization percentage.

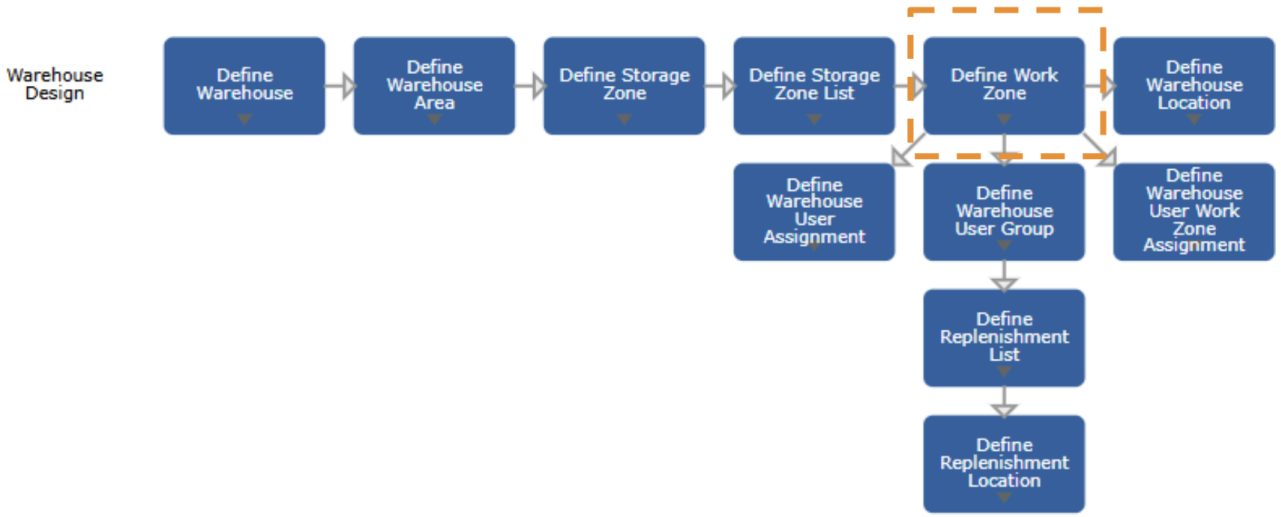
Current Weight. Displays the current weight.

Weight UM. Displays the current weight unit of measure.

Current Volume. Displays the current volume.

Volume UM. Displays the current volume unit of measure.

Defining a Work Zone



Work zones are sections of the warehouse that share common activities by labor, devices, or other devices required to manage activities. Work zones can be independent from areas or storage zones because they are related to the type of workers (skills) and/or the type of devices required to handle materials in the work zone, such as a cart, forklift, and so on. When defining a work zone, you are able to assign specific groups of users to that zone so that those groups who perform activities in a specific space will not be able to see any activities from other spaces or will not be sent to perform activities at any other than assigned spaces.

Fig. 2.10 Warehouse Work Zones

Work Zones

Use Work Zones to create a work zone. A work zone is a set of locations that specific users and equipment, such as RF scanners, can be assigned to. For example, if a company has a special type of equipment that is located in several locations and requires trained operators, work zones can be used to define this equipment (transporter, device) and a region that the trained operators should focus on while keeping the business-to-system integrity of an area.

Note: To assign users to a work zone, use Warehouse User Groups. To assign locations to a work zone, use Warehouse Locations.

Note: It is not mandatory to assign users to work zones. If a user is assigned to a specific user group, then that user can work only within that specific work zone. If not, the user is able to work in all work zones.

Warehouse. Enter the warehouse you want to update.

Work Zone. Enter the work zone you want to create or modify.

Note: A work zone is used to specify a set of locations an employee is responsible for.

Description. Optionally, enter a brief description of the work zone. The description displays in lookups and various reports so that users can identify it.

Device Type. If applicable, enter the device type to be used within this work zone, such as an RF/RDT terminal. You can assign multiple devices to a work zone and the same device type can be assigned to multiple work zones. If no single device type is applicable, leave this field blank.

Note: To create a device, use Devices.

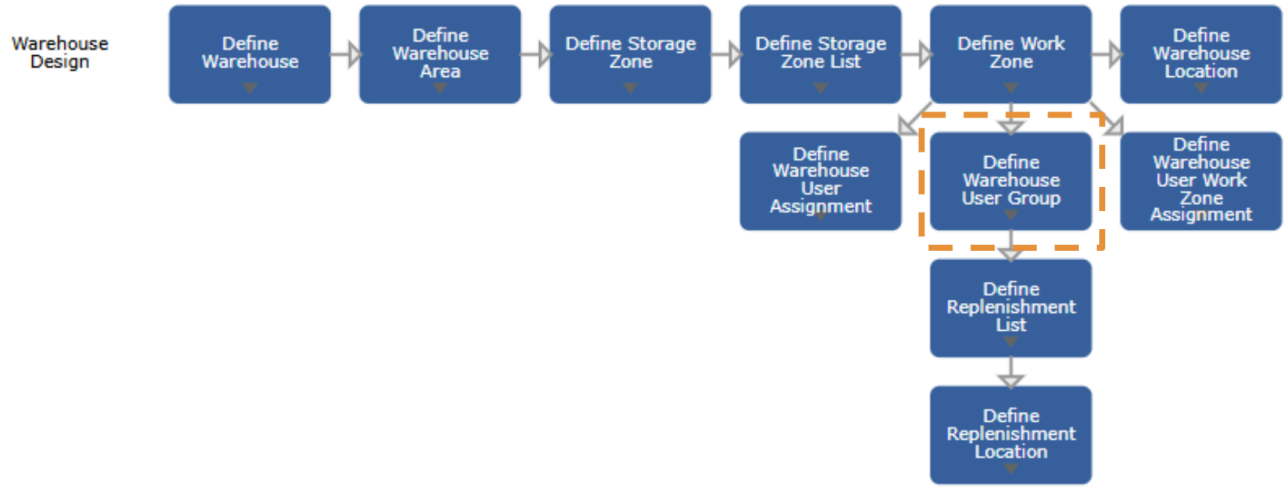
Transport Type. Enter the transporter type to be used within this work zone. You can assign multiple transporter types to a work zone and the same transporter type can be assigned to multiple work zones.

Warehouse User Groups

Use Warehouse User Groups to create a user group, assign users who have common functions to the group, assign work zones to the group, and assign a default printer that can be used by the group.

A user group can be assigned to multiple work zones. For example, this allows different people to perform different activities within different locations and areas of the warehouse.

Note: It is not mandatory to assign users to work zones. If a user is assigned to a specific user group, then that user can work only within that specific work zone. If not, the user is able to work in all work zones.



Warehouse. Enter a warehouse for the user group.

User Group. Enter the name of the user group you want to create or modify.

Description. Enter a brief description of the user group.

Default Printer. Specify the default printer for the user group. You can assign only one printer to a user group.

Note When the user is assigned to this user group, the printer specified in this field is displayed on the RF device assigned to this group.

User. This field is mandatory. Enter the user you want to assign to a warehouse user group. You can only assign one user for each warehouse and user group combination.

User Name. The user name is displayed.

Enabled. This checkbox is a read-only field. Indicates whether the user has access to the warehouse.

Active. This checkbox is a read-only field. Indicates if the user has an active record.

Work Zone. This is a mandatory field. Enter the work zone.

Description. Displays the description for the work zone.

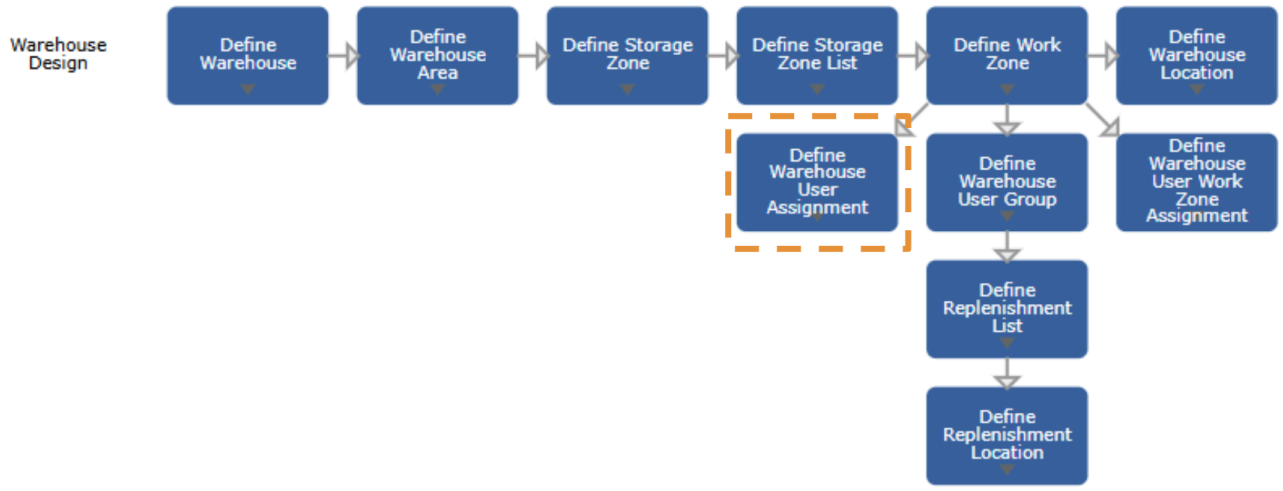
Device Type. Displays the device type information.

Warehouse User Assignments

Use Warehouse User Assignments to view all of the users assigned to a user group. You can also create user groups and assign users and work zones in this screen.

Warehouse User Work Zone Assignments

Use Warehouse User Work Zone Assignments to view all of the work zones assigned to a user group. You can also create user groups and assign users and work zones in this screen.



Defining Warehouse Items and Its Associations

QAD Core functionality allows users to handle key item information for inventory management, such as unit of measure for all receipts, movements and issues, shipping and net weight, volume, and so on. There are additional details required to define material storage and handling activities in a warehouse that Warehousing provides functionality for.

For example, if goods are stored in different packages, you can define the capacity parameters for an item in a certain pack code, such as length, width, height, weight, and volume. If goods are stored on pallets, you can define the maximum pallet height or the maximum stacking levels.

You can define how common materials may be grouped together for common handling rules. For example, you can define the warehouse item type, which groups materials together, such as cold chain or hazardous materials. A warehouse location can be assigned to only store a specific item.

You can assign a warehouse item type within material routing assignments to help identify activities and movements to be performed with specific components.

You can also define the data required for specific material handling activities. For example, if there is a specific item that flows in one direction in the warehouse, from receiving to warehouse locations that are dedicated to the component, then Warehousing allows users to assign warehouse items to a storage list. A storage list is a sequenced list of storage zones used for putaway activity, where items are put away according to its prioritized setup.

Warehouse Item Pack Code Exceptions

Use Warehouse Item Pack Code Exceptions to specify capacity parameters for an item in a certain pack code.

Note: Using Warehouse Item Pack Code Exceptions during the setup process is optional.

Item. Enter the item number you want to update.

Warehouse. Enter the warehouse you want to update.

Site. Enter the site.

Pack Code. Enter the pack code that the item is packaged in. Pack codes help define the way items and inventory are stored to facilitate warehouse and logistics activities.

Storage List. Specify the storage list.

Length. Specify the length of the pack.

Width. Specify the width of the pack.

Height. Specify the height of the pack.

Pallet Maximum Height. Specify the maximum height of the pallet for the item in the storage zone.

This field modifies the capacity calculation for the corresponding item to consider the stacking of pallets. When the location capacity is defined in referenced units of measure such as pallets, the result of the capacity calculation is the multiplication of the height, width, and length. When the maximum pallet height is defined for a given item, the multiplication is made using this maximum height and not the location height.

Size UM. Specify the size unit of measure for length, width, and height.

Maximum Stacking Levels. Specify the maximum stacking levels for the item in the storage zone.

Volume. Specify the volume of the pack.

Volume UM. Specify the unit of measure for volume.

Full Pack Weight. Enter the total weight of the full pack, which includes the weight of items in the pack and the weight of the pack.

Weight UM. Specify the unit of measure for weight.

Warehouse Items

Use Warehouse Items to define generic warehouse item attributes that apply to assigned locations or sites. This function allows users to define warehouse-related characteristics for an item and how to handle certain kinds of inventory.

Item. Enter an item. The system displays the description of the item to the right. This field is mandatory.

Warehouse. Enter an active warehouse. The system displays the description of the warehouse to the right. This field is mandatory.

Site. Enter a site to associate with the item. The system displays the description of the warehouse to the right. This field is mandatory.

Storage List. Enter a storage list. The system displays the description of the warehouse to the right. This field is mandatory.

Warehouse Item Type. Enter a warehouse item type. This field is mandatory.

Replenishment Type. Enter a replenishment type, such as pallet, loose, or boxes from the lookup window. This is used to group items together with the same replenishment requirements. Leave this field blank if the item does not belong to a particular replenishment type.

Popularity. Popularity is an indicator describing turnover. Define the relative priority for choosing this location when the system has a choice of locations in which to put away inventory. Low alphanumeric values for the popularity indicates greater popularity.

For example, a popularity code of AAA indicates a popular location that is easily accessed, while a code of ZZZ indicates an unpopular location that is perhaps difficult to access.

You typically put fast-moving stock in the low-value popularity code locations, and slowmoving stock in the higher ones.

Shelf Life. Enter the shelf life for the item, that is the length of time in days that an item may be stored in the zone without becoming unfit for use, consumption, and sale.

Allow Splitting. Select the checkbox if stock can be picked from locations in the storage zone in situations where the quantity required for the pick does not match the unit of measure in which the item is stocked in the location. Select the checkbox if this unit of measure can be split into smaller units.

Inspection Required. Select this checkbox to specify if an inspection is required for the item.

Receipt Inspection Frequency. Enter the frequency in which inspections must take place during receipt of the item.

Sample Quantity. Enter the quantity to be inspected on this sample, expressed in the item's unit of measure.

Destructive Test. Select the checkbox if the test applied to the sample is a destructive test. If selected, the sample must be issued using an unplanned issue transaction. If cleared, when the inspection does not fail, the system generates a new transaction based on a new internal routing to put the sample back in stock.

Receipts since last inspection. Displays the number of tasks created for Inspection Location since the last inspection was done.

Inspection Days. Enter the frequency in days that an inspection should take place. If an inspection has not occurred in the number of days entered in this field, the system will determine that an inspection should be performed.

Sample Percentage. Specify a percentage of the quantity being received to be inspected. The system rounds the result to the closest integer value if the percentage of the received quantity is not an integer.

Random Inspection. Select the checkbox if the inspection should occur randomly.

Last Inspected. Displays the date when the last transfer to the inspection location occurred.

Pallet Maximum Height. Specify the maximum height of the pallet.

This field modifies the capacity calculation for the corresponding item to consider the stacking of pallets. When the location capacity is defined in referenced units of measure such as pallets, the result of the capacity calculation is the multiplication of the height, width, and length. When the maximum pallet height is defined for a given item, the multiplication is made using this maximum height and not the location height.

Length, Width, Height, Volume, Pallet Height and Maximum Stacking Level measures are used for dynamic capacity calculations.

Size UM. Specify the unit of measure for length, width and height. This field is mandatory.

Maximum Stacking Levels. Specify the maximum stacking levels of the item.

Volume. Specify the volume of the item. The volume is used for dynamic capacity calculations.

Volume UM. Specify the unit of measure for volume.

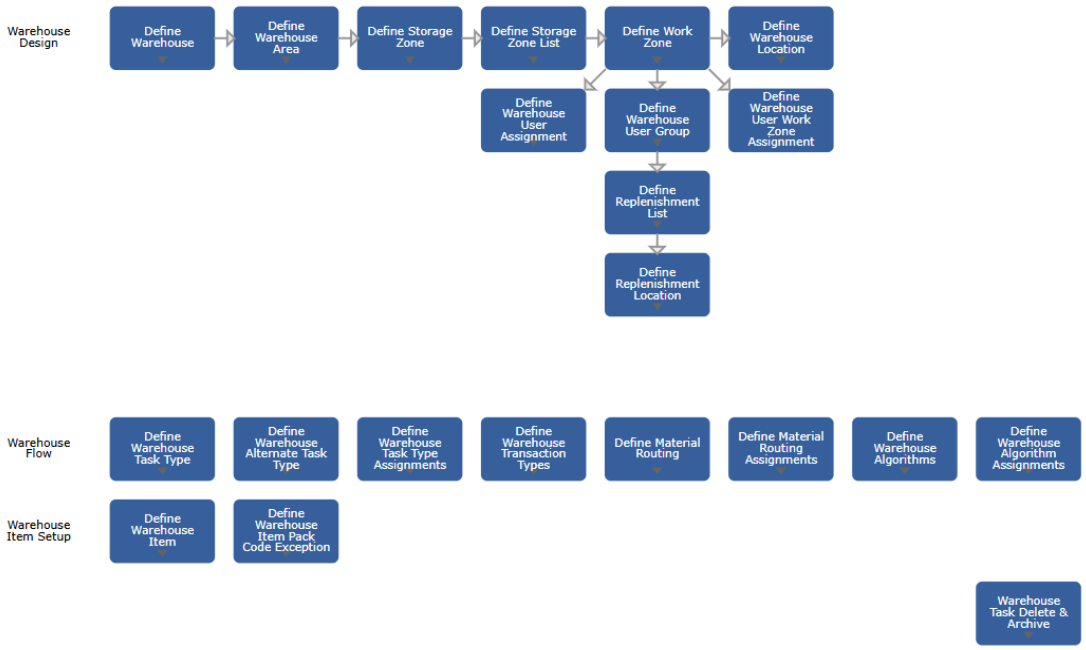
Unit Storage Weight. Specify the weight of the stored item.

Weight UM. Specify the unit of measure for weight.

Material Flow Management

Material flow management includes job and task management, putaway, picking, and replenishment logic.

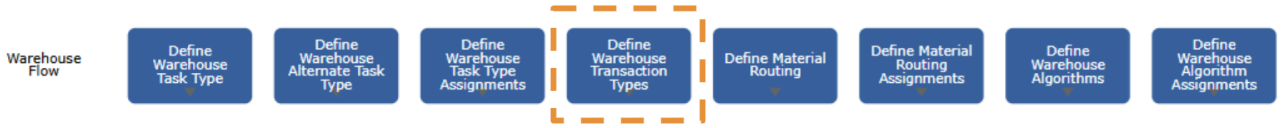
Fig. 2.11 Warehouse Setup Process Map



Setting up Warehouse Transaction Types

Warehouse Transaction Types

Use Warehouse Transaction Types to add new features to standard transaction types so that the system processes the transactions in the way you require. Users can also use this screen to define new transaction types for special types of inventory transactions that are not covered by the standard types.



The transaction type defines types of inventory transactions that are related with specific requests and orders. The following transaction types are specific to Request actions:

- Picking Requests
  - PICK-SO – Sales Order Picking
  - PICK-DO – Distribution Order Picking
  - PICK-WO - Production Order Picklist Picking
- Putaway Requests
  - PUT-TR – Inventory Putaway requested in advance, by Putaway Requests
  - OTF-TR – On the Fly Inventory Transfer (real-time inventory transfer on the shop floor)
- Replenishment Requests
  - PICK-RE – Replenishing Min-Max Points, by Replenishment Requests
  - PICK-RE – Replenishment Requests using manual replenishment quantity

Transaction Type. Enter a name that uniquely identifies the new transaction type. This field is mandatory.

Description. Enter a description for the transaction type.

Auto. This checkbox specifies how processes defined by material routings are initiated. If selected, the next process in the material routing sequence is started automatically as soon as the previous process is complete; otherwise, if the checkbox is cleared, the next process will start when you manually select it for processing with an engine workfile.

Standard Type. This field is read-only and cannot be modified. The checkbox is selected when the transaction type entered is one of the standard transaction types provided in the system. If cleared, the transaction type is custom and user-defined.

Pick Control Level Storage. This checkbox determines if the picking details are controlled by the settings at the storage zone level when enabled. It is cleared by default.

Overpicking. This checkbox specifies if you can pick more stock in this particular type of transaction. It is cleared, or set to not allowed, by default.

Setting up Warehouse Algorithms

The following screens are used to set up warehouse algorithms:

- Warehouse Algorithms
- Warehouse Algorithm Assignments

A warehousing algorithm is a rule providing a specific output as a product of inputs that is related to a certain type of function that consists of a sequence of instructions that will provide output as a result based on those instructions. In other words, it is a rule that helps to identify locations or inventory that are subject of transfer, picking, replenishment, or putaway tasks.

Examples of warehousing algorithm types include:

- Location Find
- Putaway
- Picking
- Inspection

Each type has several distinct warehousing algorithms that will provide their own result. An example of a result might be an empty location. Warehousing algorithms can be sequenced to give warehouse managers the ability to prioritize the order in which results are presented so that operations can be optimized. To expand on the previous example, a warehouse might be set up so that a high-turn material's storage is optimum when it is: first, placed at the lowest travel sequence (set up low to high based on distance from consumption point); if a close location is not found then, second, placed with like items.

Warehouse Algorithms

Use Warehouse Algorithms to create types of material handling activities.

At a high level, warehousing algorithms are used for either putting inventory away in locations or finding locations to take inventory out of.

Depending on its engine they consist of different rules corresponding to the functionality. Moreover, for each algorithm type, the system provides the standard algorithms to optimize the Warehouse Engine.

Name	Details
Location Find	Used for finding target locations, where the inventory will be transferred to, that are located within functional areas (non-capacity driven), such as shipping, receiving, and so on.
Putaway	Used for finding target locations, where the inventory will be transferred to, that are located within non-functional areas (capacity driven), such as stock.
Picking	Used to find materials to be transferred.
Inspection	Used to determine when inspection of items is required

Algorithms, depending on their type, are specifically looking for the optimal location, finding the right inventory to pick, or determining whether the inventory or location will be checked with additional requirements, such as checking for shortages, checking if inventory should be additionally inspected, and so on. The following algorithms are provided with the standard system according to different types:

Algorithm Type	Algorithm
Location Find	101 - Find first functional location in first Storage Zone 102 - Find first empty functional location 201 - Merge with same Shipper/Picklist 202 - Merge with same Order 203 - Merge with same Shipping Address 204 - Merge with same Carrier 205 - Merge with same Ship Via
Putaway	101 - Find first storage location 102 - Find first empty storage location 103 - Find first location with same Item 104 - Find first location same Item/same Lot 111 - Find first dedicated storage location 112 - Find first dedicated empty storage location 113 - Find first dedicated location with same Item 114 - Find first dedicated location with same Item/lot
Picking	101 - Pick by Date 102 - Pick by Expire Date 103 - Pick by Lot/Serial 104 - Pick by Location 121 - Pick by Commission Date

	122 - Pick by Commission Date Pick Full Packs only 123 - Pick by Commission Date Allow LTF Packs No other picks/tasks 201 - Pick by SZ Pick Level by Date 202 - Pick by SZ Pick Level by Expire Date 203 - Pick by SZ Pick Level by Lot/Serial 204 - Pick by SZ Pick Level by Location 221 - Pick by SZ Pick Level by Commission Date 222 - Pick by SZ Pick Level Commission Date Pick Full Packs only 223 - Pick by SZ Pick Level Comm Date Allow LTF Picks Single Task Only
Inspection	101 - Always Inspect when inspection Required 102 - Inspect when inspection Required only every X days 103 - Inspect when inspection Required only every X receipts

Note: Generally, you will only need to use the algorithms that are supplied in the system, but you can create your own custom algorithms using platform extensions and Service Based Inheritance.

Type. Select the type of algorithm you want to maintain. Algorithm type refers to the type of material handling activities like put away or picking.

Algorithm. Enter the algorithm ID to assign to the selected algorithm type. The algorithm must exist in the system.

Description. Optionally, enter a brief description of the record you are creating or modifying. The description displays in lookups and various reports so that users can identify it.

Warehouse Algorithm Assignments

Use Warehouse Algorithm Assignments to create a prioritized list of warehousing algorithms that are assigned to specific transaction types in order to satisfy certain process needs.

Setting up a sequence of algorithms is useful so that users can specify the ideal method for selecting locations in a prioritized manner, starting with most preferable. For example, if the system cannot meet the full putaway or picking requirements after running the first algorithm on the list, the system then runs the next algorithm in the sequence until the requirement has been met.

When creating a list of algorithms to fulfill certain needs, the user can link the specified sequence of algorithms per its single type to the desired combination of Transaction Type, Site, Warehouse, Item or Warehouse Item Type, and Address (supplier for received inventory or customer for shipped inventory). This screen provides flexibility by letting the users set up as many combinations of all elements as required.

Algorithm Type. Select the type of algorithm you want to maintain or assign. Algorithm type refers to the type of material handling activities like put away or picking.

Site. Enter a code identifying a site.

Item Number. Enter the code identifying an inventory item defined in Items.

Note: This field is optional and should be used in certain cases where an item requires specific handling.

Address. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality: Enter a code uniquely identifying an address record. This address can be a supplier for received inventory or a customer for shipped inventory.

Transaction Type. Specify the transaction type to assign to the algorithm sequence. This field is mandatory. To set up transaction types, use Warehouse Transaction Types. The transaction type defines types of inventory transactions that are related with specific requests and orders.

The following transaction types are specific to Request screens:

- Picking Request
  - PICK-SO – Sales Order Picking
  - PICK-DO – Distribution Order Picking
  - PICK-WO – Production Order Picklist Picking
- Putaway Request
  - PUT-TR – Inventory Putaway requested in advance, by the Putaway Requests action
  - OTF-TR – On the Fly Inventory Transfer (real-time inventory transfer on the shop floor)
- Replenishment Request
  - PICK-RE – Replenishing Min-Max Points, by Replenishment Requests
  - PICK-RE – Replenishment Request using manual replenishment quantity.

Warehouse. Enter the warehouse you want to associate with the algorithm sequence.

Warehouse Item Type. If you want to assign a sequence of algorithms to a combination of transaction type and warehouse item type, enter the item type here. If you leave this field blank, the assignment is valid for all item types. Warehouse Item Type can be defined for each item using Warehouse Items.
The Assignments panel grid displays the sequence for each algorithm. This grid allows you to create, modify, or delete sequence assignments and includes the Sequence, Algorithm, and Description columns.

Sequence. Each algorithm assignment consists of a number of individual algorithms, in order, identified by a sequence number. You can assign an individual sequence of algorithms that are required to be used in order to fulfill demand. For a new assignment, the Sequence defaults to 0. The best practice is to set up number sequences by 10's (10, 20, 30, and so on) so that additional steps can be inserted easily later, if required.

Algorithm. Assign algorithms of the type you selected at the top of the frame.

Description. The description of the algorithm will be displayed.

Setting up Material Routing

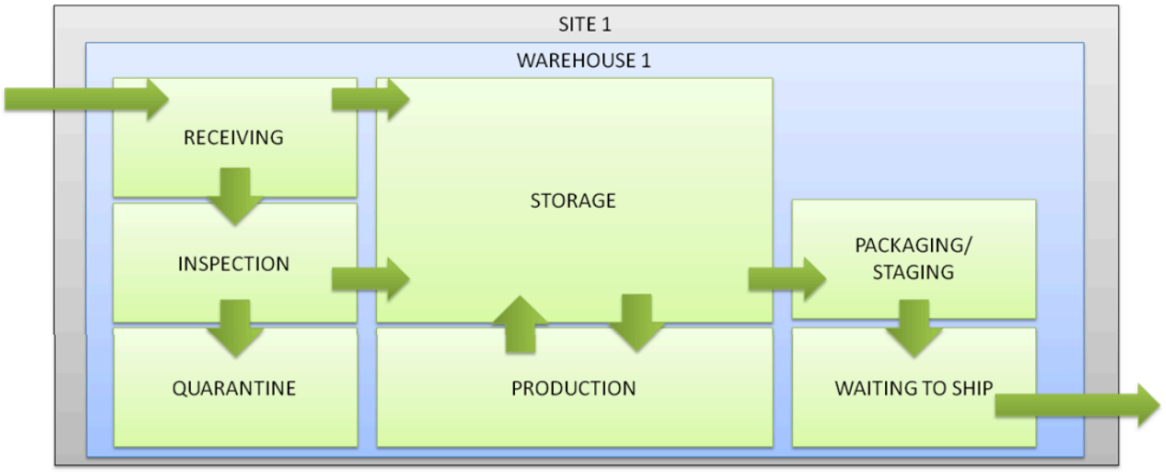
The following screens are used to set up a material routing:

- Warehouse Task Types

- Warehouse Alternate Task Types
- Material Routings
- Material Routing Assignments
- Warehouse Task Type Assignments

Material routings define how goods flow through a warehouse, distribution center, or manufacturing facility. Certain regions of a warehouse may have their own unique characteristics, and material routings assist in automatically guiding users to perform the correct action (physical or in the system) as goods are moved. Some examples of parameters include: checking for shortages, adjusting packaging (from pallet to box), and indicating a change in status.

Fig. 2.12 Material Routing Through Warehouse Locations



Warehouse Task Types

Use Warehouse Task Types to create task type characteristics and maintain existing task types.

Tasks cover an individual action that must take place to move inventory appropriately. Tasks can have different types that describe the action taking place. These types coincide with material handler duties and can be assigned a certain priority to a user. The following task types are supported:

Source Demand	Task Type
Picking	Picking
Replenishment	Replenishment
Putaway	Putaway
Inventory Transfer	Transfer

Task Type. Enter the name of the task type.

Description. Optionally, enter a description of the task type.

Confirmation Mode. Specify the default confirmation method for this task type:

- Auto. The movement confirmation is performed automatically.
- Manual. The task must be confirmed manually by a user.

Warehouse Alternate Task Types

Note: Warehouse Alternate Task Types are not supported in the Adaptive 1.0 release. These are for future use.

Use Warehouse Alternate Task Types to create alternate task type characteristics and to specify special circumstances in which the alternate task type should be used instead of the standard task type.

When creating an alternate task type, users will link the alternate task type with a standard task type and then specify the circumstances when the alternate task type will be used, such as when material is being moved from one specific location to another.

Note: Standard task types are created and managed using Warehouse Task Types.

Note: Using Warehouse Alternate Task Types during the setup process is optional.

Alternate Task Type. Enter the name of the alternate task type. For example, enter Transfer if the task involves transferring items from one location to another.

Description. Optionally, enter a brief description of the alternate task type. The description displays in lookups and various reports so that users can identify it.

Task type. Enter the name of the standard task type that will be linked to this alternate task type. Standard task types are created and managed using Warehouse Task Types.

Sequence. Specify the sequence in which the alternate task should be considered.

From Site. Enter the site where inventory is being transferred from.

To Site. Enter the site where inventory is being transferred to.

From Warehouse. Enter the warehouse where inventory is being transferred from.

To Warehouse. Enter the warehouse where inventory is being transferred to.

From Area. Enter the area where inventory is being transferred from.

To Area. Enter the area where inventory is being transferred to.

From Work Zone. Enter the work zone where inventory is being transferred from.

To Work Zone. Enter the work zone where inventory is being transferred to.

From Location. Enter the location where inventory is being transferred from.

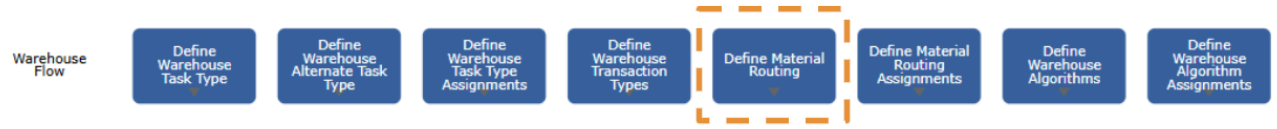
To Location. Enter the location where inventory is being transferred to.

Confirmation Mode. Specify the default confirmation method for this task type:

- Auto. The movement confirmation is performed automatically.
- Manual. The task must be confirmed manually by a user.

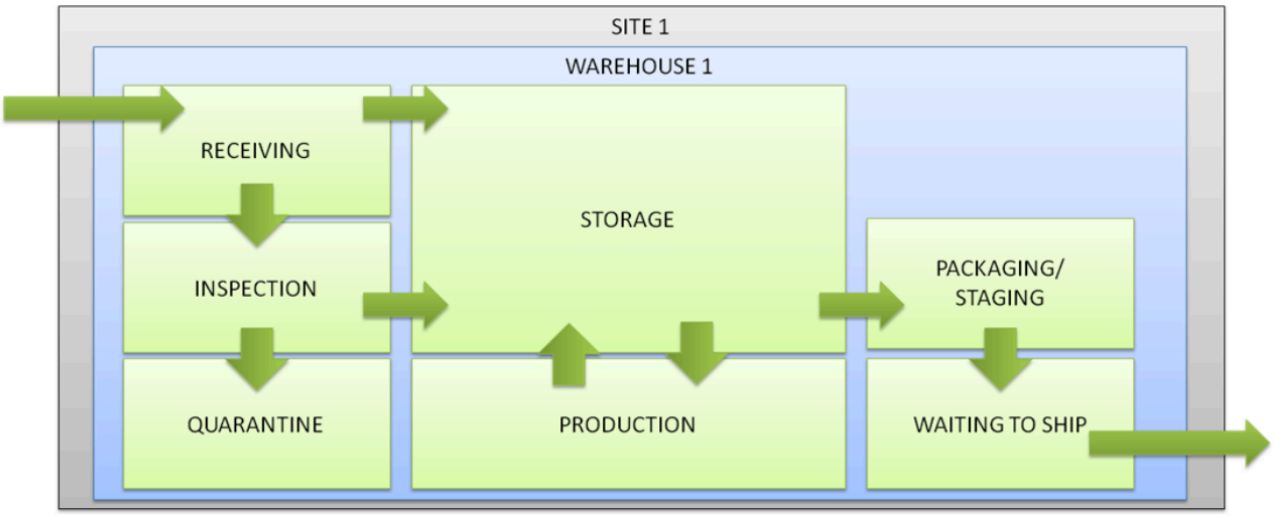
Material Routings

Use Material Routings to modify or create a material routing.



In this screen you create a sequenced list of steps that specifies the path inventory should follow through the warehouse. Each step (sequence) within the material routing defines the warehouse area where the inventory is moved next and the warehouse area where the inventory is moved from. For each step within the internal routing, you specify the number of fields that control how the inventory is processed as it reaches that point in the sequence. The parameters are controlled at the point where inventory is taken from.

Fig. 2.13 Material Routing Through Warehouse Locations



While setting up sequences in Material Routings, the first sequence indicates the warehouse area where inventory is moved from and the second sequence number indicates the warehouse area where the inventory is moved to. Accordingly, the next sequences indicate the next areas where inventory is to be moved.

Demand	Sequence 10	Sequence 20
Picking	STORAGE	PACKAGING
Replenishment	STORAGE	PRODUCTION
Putaway	RECEIVING	STORAGE

In the example below, the first sequence indicates that inventory will be moved from Receiving to Inspection and the next sequence indicates that inventory will be moved from Inspection to Storage.

Sequence	Warehouse Area
10	Receiving
20	Inspection
30	Storage

Warehouse. Enter the warehouse where you want to create or modify the material routing.

Material Routing. Specify the code that identifies the material routing you want to maintain.

Description. Optionally, enter a brief description of the record you are creating or modifying. The description displays in lookups and various reports so that users can identify it.

To access the Warehouse Material Routing Detail view, click Details. Here you can access the routing sequences, transactions, and picking panels, and edit the information of the material routing.

Area. This field is mandatory. Enter the area in which the inventory should be considered.

Sequence. This field is mandatory. Specify the sequence in which the alternate task should be considered.

Task Type. Enter the name of the standard task type.

Task Priority. Assign a default priority value to transactions in the material routing.

Task Priority Increment. Specify the increment that is added to a transaction's priority as time elapses.

Create Shipper. Currently, this field is not functional and is for reference only. In the future, this field will support the following functionality:

Select the checkbox to create standard shippers. You can use standard shipping functions to consolidate and print these shippers as shippers, containers, or bills of lading. Standard shipping functions can also be used for bulk shipment of, for example, multiple sales orders that have been combined onto a single shipper.

Check Inspection. Select the checkbox to determine whether inspection must take place.

Check Shortages. Select the checkbox to verify the shortage clearance before a location is identified to receive the inventory. This option looks for orders that were not fully satisfied in the original picking because of insufficient inventory levels.

Keep Inventory Status. Specify how the system sets the status of transferred inventory. Select this checkbox to allow the inventory status of the transferred inventory to retain its original value.

From Location Option. Select the location where inventory is being transferred from. Choose a number to define whether warehouse staff can modify the From Location aspect of inventory transactions. The options below determine how the transaction functions and which action you might need to take:

- 0: No change allowed
- 1: Issue a warning if the field is changed
- 2: Request confirmation if the field is changed
- 3: Require re-entry if the field is changed

To Location Option. Select a number to define whether warehouse staff are allowed to modify the destination location aspect of inventory transactions. The options below determine how the transaction functions and which action the user might need to take:

- 0: No change allowed
- 1: Re-prompt; must be different location
- 2: Re-prompt; can be same location
- 3: Re-prompt; can be same location, warn if different
- 4: Re-prompt; can be same location, confirm if different
- 5: Re-prompt; can be same location, re-enter if different

From Lot Option. Enter a number to define whether warehouse staff can modify the From Lot/Serial value to one that is different from the value assigned by the system. The options are:

- 0: No change allowed
- 1: Issue a warning if the field is changed
- 2: Request confirmation if the field is changed
- 3: Require re-entry if the field is changed

To Lot Option. Enter a number to define whether warehouse staff are allowed to modify the destination Lot aspect of inventory transactions and, if so, which action is required. The options are:

- 0: No change allowed
- 1: Blank the Lot/Serial field
- 2: Re-prompt. Non-blank Lot/Serial required
- 3: Re-prompt. Allow old L/S. Blank not allowed
- 4: Re-prompt. Any Lot/Serial value allowed
- 5: 3+ Warning if changed
- 6: 4+ Warning if changed
- 7: 3+ Confirmation of change required
- 8: 4+ Confirmation of change required
- 9: 3+ Re-entry required if changed
- 10: 4+ Re-entry required if changed

From Reference Option. Enter a number to define whether warehouse staff are allowed to modify the From Reference aspect of inventory transactions and, if so, which action is required. The options are:

- 0: No change allowed
- 1: Issue a warning if the field is changed
- 2: Request confirmation if the field is changed
- 3: Require re-entry if the field is changed

To Reference Option. Enter a number to define whether warehouse staff are allowed to modify the destination reference aspect of inventory transactions and, if so, which action is required. The options are:

- 0: No change allowed
- 1: Blank the reference field
- 2: Re-prompt. Non-blank reference required
- 3: Re-prompt. Allow old references. Blank not allowed
- 4: Re-prompt. Any reference value allowed
- 5: Automatically regenerate a new Reference
- 6: 3+ Warning if changed
- 7: 4+ Warning if changed
- 8: 3+ Confirmation required if changed
- 9: 4+ Confirmation required if changed
- 10: 3+ Re-entry required if changed
- 11: 4+ Re-entry required if changed
- 12: 5+ Re-prompt

From Pack Option. Enter a number to define whether warehouse staff are allowed to modify the From Pack Code aspect of inventory transactions and, if so, which action is required. The options are:

- 0: No change allowed
- 1: Issue a warning if the field is changed
- 2: Request confirmation if the field is changed
- 3: Require re-entry if the field is changed

To Pack Option. Enter a number to define whether warehouse staff are allowed to modify the destination pack code aspect of inventory transactions and, if so, which action is required. The options are:

- 0: No change allowed
- 1: Issue a warning if the field is changed
- 2: Request confirmation if the field is changed
- 3: Require re-entry if the field is changed

Adjust Packaging. Select from the following options to adjust the packaging when a transaction is performed:

- Split Pack
- Repackage Pack
- Remove Pack
- Build Pack

Quantity Change Option. This field defines the action to be taken if the quantity is changed, as controlled by the Allow Quantity settings. The options are:

- 0: Accept the change
- 1: Accept the change and display a warning

- 2: Accept the change if in the form of a quantity, otherwise re-enter

Allow Quantity Increase. Select the checkbox if warehouse staff are allowed to increase the quantity when a transaction is performed.

Note If the checkbox is enabled, then the transaction takes into consideration the quantity change option.

Allow Quantity Decrease. Select the checkbox if warehouse staff are allowed to decrease the quantity when a transaction is performed.

Note If the checkbox is enabled, then the transaction takes into consideration the quantity change option.

Repick Type. Enter the transaction type that should be used if a repick is required.

Note This re-pick transaction type must start with PICK-, and must be defined in Warehouse Transaction Types. If you leave the Repick Type field blank, the re-pick will use the same transaction type as the original picking.

Direct Pick. Select the checkbox if you want to allow direct picks for the material.

Allow Switch Lot/Serial. Select the checkbox to activate the switch lot/serial and reference functionality by material routing.

Expire Date (Days). Indicates the date to use when you select expired call quotes to be deleted or archived.

Material Routing Assignments

Use Material Routing Assignments to assign a material routing to a specific warehouse and transaction type.

You can also specify a combination of a transaction type with an item, a warehouse item type, or an address relating to a supplier or customer, so that the material routing is used when that particular combination occurs.

Transaction Type. Specify the transaction type to link to a material routing. To set up transaction types, use Warehouse Transaction Types. The transaction type defines types of inventory transactions that are related with specific requests and orders.

Site. Enter a site. A site represents a place where inventory is manufactured or stored, such as a distribution center, a warehouse, a manufacturing facility, or any combination of these.

Warehouse. Enter the code that identifies the warehouse you want to update.

Item. If you want to assign a material routing to a combination of transaction type and item, enter the item number here. If you leave this field blank, the assignment is valid for all items.

Item Warehouse Type. If you want to assign a material routing to a combination of transaction type and warehouse item type, enter the item type code here. If you leave this field blank, the assignment will be valid for all item types.

Address. If you want to assign a material routing to a combination of transaction type and address, enter the address code here. If you leave this field blank, the assignment will be valid for all addresses. For receipt types of transactions, the address will relate to the supplier of the item being received. For issue types of transactions, the address will relate to the customer to whom the goods are to be dispatched.

From Area. Optionally, enter the area where inventory should be transferred from. Leave this field blank to specify all areas.

From Zone. Optionally, enter the zone where inventory should be transferred from. Leave this field blank to specify all zones.

From Location. Optionally, enter the location where inventory should be transferred from. Leave this field blank to specify all locations.

Destination Location. Optionally, enter the destination location. Leave this field blank to specify all locations.

Sequence. Specify the sequence in which the alternate task should be considered. This is a mandatory field.

Material Routing. Specify the code that identifies the material routing you want to assign to a particular transaction type. The material routing must exist in the system. A material routing can be created or modified in Material Routings.

Warehouse Task Type Assignments

Note: Warehouse Task Type Assignments are not supported in the Adaptive 1.0 release. These are for future use.

Use Warehouse Task Type Assignments to assign task types to the specific resources that perform actions of this type. This browse allows users to create a prioritized list of task types and group them into queues. The queue can contain a number of sequences that are checked first before going to the second queue. If there are alternate task type records, then the task type is replaced by its alternative.

When performing task types, the priority of what is performed is based on the queue and its sequences. For example, the following picking and putaway tasks types have been set up to be performed by a user in the warehouse:

- Queue 1
    - Sequence 1: Picking
    - Sequence 2: Putaway

In this use case, the user is prompted to perform the picking task first because of its higher priority in the queue. After the picking task is complete, the user is prompted to perform the putaway task. If there are multiple queues, the system first checks all the sequences in queue 1 before going to queue 2.

Because those users will only be able to see those tasks to be performed, they will not have access to the other types of tasks, preventing users from performing tasks that are not assigned to them. If more task

types are assigned to the same user, then by its assignment in queue and sequence, it is certain that they will be performed by its prioritized list.

User ID. Enter the ID of the user who will be assigned the tasks.

The Assignments panel grid displays the queue order for each task type. This grid allows you to create, modify, or delete queue assignments and includes the Queue, Sequence, Task Type, and Confirmation Mode columns.

Queue. Tasks are grouped in queues, with the lowest number having priority. Enter the number of the queue to which you want to assign the task.

Sequence. Tasks are grouped within queues by sequence, with the lowest number having priority. Enter the number of the queue sequence to which you want to assign the task.

Task Type. Specify the task type. The task type describes the action taking place during the task. Examples of task types include PICKING, PUTAWAY, REPLENISHMENT, and TRANSFER.

Note If you enter a task type that is already assigned to the same User ID, when attempting to save or upon leaving the field, the system notifies you the combination already exists.

Confirmation Mode. Specify the default confirmation method for this task type:

- Auto. The movement confirmation is performed automatically.
- Manual. The task must be confirmed manually by a user.

Chapter 3: Warehouse Engine

This chapter discusses the following topics:

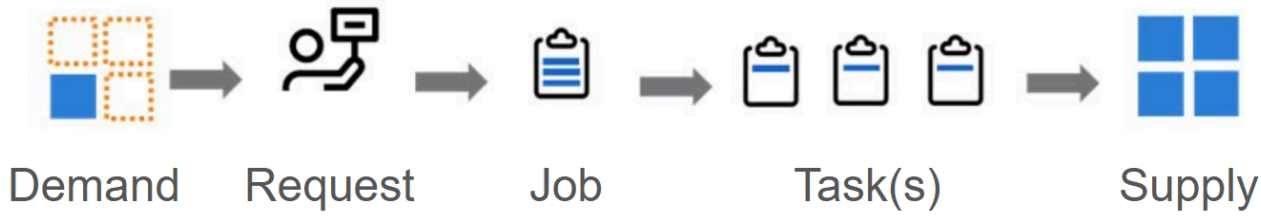
Jobs and Tasks

Jobs and tasks organize activities that occur in the warehouse on a high level (jobs) and low level (tasks). Jobs and tasks are records that account for the required movement of inventory around a warehouse.

Most often, jobs cover a group of actions that need to occur. The actions are related to orders, either sales or distribution orders. As each order can have different information (order lines), those details are reflected in a job as the jobdetail, which describes the overall requirements for items.

Tasks cover an individual action that must take place to move inventory appropriately. Tasks can have different types that describe the action taking place. These types coincide with material handler duties and can be assigned a certain priority to a user.

Fig 3.1. Jobs and Tasks Flow

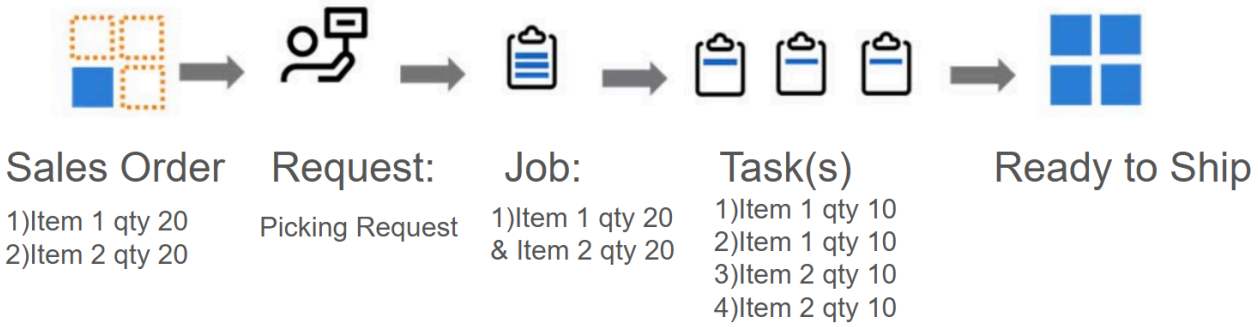


The following table displays the different information that is provided at different levels, from Jobs, to JobDetails, to Tasks.

Demand	Task Type	Job Detail	Task
Picking	Picking	Order Line	Serial/Item & Location
Replenishment	Replenishment	Item & Location	Serial ID & Location
Putaway	Putaway	Serial	Serial & Location

Example As shown in the graphic below, there is a sales order with two items (lines), each with a quantity of 20, that need to be shipped today. This represents the demand for picking. Both items are stored in boxes, each box containing a quantity of 10. To simultaneously collect the proper requirements for this order, a picking request is placed and the requirements are released as a job. The job reflects what is required for the sales order pre-shipper or shipper, and only one job is created to pick the two items. The details of the job describe the requirements for demand, such as the type of the job, total quantity required, pre-shipper or shipper number, the order lines, and the user that is assigned to perform this action. Then, at the lower level of the job the tasks are generated, which reflect what needs to be performed according to the generated task. It indicates the action necessary to be taken to fulfill the demand. In this case, the tasks reflect activities to pick each of the boxes from one location and to transfer them to a destination location. The sum of all required inventory to be picked on the tasks is equal to the required quantity on the job.

Fig 3.2. Jobs and Tasks Example



Checking Setup and Simulating the Creation of Jobs and Tasks

The following screens are used to simulate the creation of jobs and tasks and to check if the setup has been created properly to allow the tasks to be created:

- Putaway Simulation

Putaway Simulation

Use Putaway Simulation to test the putaway algorithm assignments without altering inventory records. After the user inputs the mandatory parameters that would be passed to the algorithm in a real-life scenario, the system generates a report that lists all the locations that would have been used if the program had been carried out as a real transfer/putaway.

Site. Enter the site.

Warehouse. Enter the warehouse.

Area. Optionally, enter the area where the inventory will be transferred to.

Item. Optionally, enter the item for which you want to run a simulation. The item that is specified will be picked in the simulation in accordance to preset rules.

Location. Optionally, enter the location for this function to consider.

Lot/Serial. Optionally, enter the lot/serial to use for the simulation.

Reference. Optionally, enter the reference to use for the simulation.

Serial. Optionally, enter the Serial(s) for which you want to run the simulation.

Transaction Type. Optionally, enter a transaction type *Detail Report*. You can select to print the simulation in Detail mode, which includes the detailed logic the engine is using to determine the putaway location, or in Summary mode, to view only the to location determined by the engine.

Creating Jobs and Tasks

The following actions are used to create jobs and tasks:

- Putaway Requests
    - Warehouse Inventory Details > Bulk > Putaway Requests
- Replenishment Requests

    - Replenishment Locations > Individual > Manual Replenishment Request
    - Replenishment Locations > Bulk > Manual Replenishment Requests
    - Replenishment Locations > Bulk > Replenishment Requests
- Sales Order Picking Requests
    - Warehouse Pre-Shippers/Shippers > Bulk > Picking Requests
- Distribution Order Picking Requests
    - Warehouse Pre-Shippers/Shippers > Bulk > Picking Requests
- Production Order Picking Requests
    - Warehouse Production Picklists > Bulk > Picking Requests
- Creating tasks for existing jobs
    - Warehouse Jobs > Bulk > Create Tasks

Putaway Requests

Warehouse Inventory Detail > Putaway Requests

The Putaway Requests Bulk Action in the Warehouse Inventory Detail screen allows you to generate warehouse jobs and tasks moving loose inventory and serials into designated warehouse locations.

You can specify the exact locations where the inventory will be transferred. Alternatively, you can allow the system to determine the locations based on available warehouse locations set up in Material Routings, Algorithm Assignments, and Storage Lists.

Search Criteria. Displays the search data entered in the browse filter.

From Site. Enter the From Site. This field is mandatory. If you enter a From Site in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

From Warehouse. Enter the From Warehouse. This is a mandatory field. If you enter a From Warehouse in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

From Area. Optionally, enter the From Area. If you enter a From Area in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

Reason. Optionally, enter a reason to be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Transaction Type. Enter a transaction type. The field defaults to PUT-TR (Putaway).

Remarks. Optionally, enter remarks to be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

To Area. Optionally, select the checkbox and enter the To Area to be assigned to all records in the grid.

To Storage Zone. Optionally, select the checkbox and enter the To Storage Zone to be assigned to all records in the grid.

To Location. Optionally, select the checkbox and enter the To Location to be assigned to all records in the grid.

Note: You can also manually overwrite the To Location directly in the grid for each record.

Include Loose Inventory. Optionally, select the checkbox to include loose inventory.

Include Serialized Inventory. Optionally, select the checkbox to include serialized inventory.

Search. Select the Search button to populate the Requests panel with inventory to be putaway based on the information entered in the Criteria and Options panels.

Run Engine (button). Click the Run Engine button to calculate the To Location for the serials and/or loose inventory to be putaway based on Warehousing setups. The Run Engine button populates the To Site, To Warehouse, To Area, To Storage Zone, To Location, Current Utilization %, and Algorithm Type/Number fields.

Note: The Engine also runs automatically when you click the Submit button.

Select (Checkbox). Specify the inventory to be putaway by selecting the corresponding checkbox.

Note: The Run Engine runs only for rows where the checkbox is selected.

Item. Displays the item. If there are multiple items in the pack, this field is blank.

Description. Displays the item description. If there are multiple items in the pack, this field is blank.

Lot/Serial. Displays the lot/serial for the inventory. If there are multiple lot/serials in the pack, this field is blank.

Reference. Displays the reference number for the inventory. If there are multiple items in the pack, this field is blank.

Serial. Displays the master serial for the pack.

From Site. Displays the From Site for the inventory.

From Warehouse. Displays the From Warehouse for the inventory.

From Area. Displays the From Area for the inventory.

From Storage Zone. Displays the From Storage Zone for the inventory.

From Location. Displays the From Location for the inventory.

To Site. Displays the To Site. If the To Location is populated, this field is calculated based on that location. If the To Location is not populated, this is automatically calculated when the engine is run.

To Warehouse. Displays the To Warehouse. If the To Location is populated, this field is calculated based on that location. If the To Location is not populated, this is automatically calculated when the engine is run.

To Area. Displays the To Area. If the To Location is populated in the Options panel, this field is calculated based on that location. If the To Location is not populated, this is automatically calculated when the engine is run.

To Storage Zone. Displays the To Storage Zone. If the To Location is populated in the Options panel, this field is calculated based on that location. If the To Location is not populated, this is automatically calculated when the engine is run.

To Location. Enter the To Location. If the To Location is not populated in the Options panel, this is automatically calculated when the engine is run. This field can be manually updated in the grid to override the To Location calculated by the engine.

Current Utilization %. Displays the current To Location utilization.

Algorithm Type/Number. Displays the algorithm type/number used by the engine.

Stage. Displays the stage of the serial to be putaway. If the row contains loose inventory, this field is blank.

Pack Code. Displays the pack code of the serial to be putaway. If the row contains loose inventory, this field is blank.

Pack Code Description. Displays the pack code description for the serial to be putaway. If the row contains loose inventory, this field is blank.

External Serial. Displays the external serial for the serial being putaway. If the row contains loose inventory, this field is blank.

Origin Code. Displays the origin code for the serial being putaway. If the row contains loose inventory, this field is blank.

Quantity Loose. Displays the quantity of loose inventory.

Quantity in Pack. Displays the quantity in the pack for the serial.

Replenishment Requests

Replenishment Locations > Individual > Manual Replenishment Request

Use the Manual Replenishment Request Individual Action to manually set the replenishment quantity, and create Jobs and Tasks.

Warehouse. Displays the warehouse associated with the replenishment request. This is a read-only field.

Area. Displays the replenishment request area. This is a read-only field.

Storage Zone. Displays the replenishment request storage zone. This is a read-only field.

Warehouse Location. Displays the warehouse location associated with the replenishment request. This is a read-only field.

Item. Displays the replenishment request item. This is a read-only field.

Site. Enter a site associated with the replenishment request. This field is mandatory.

Replenishment Quantity. Enter the replenishment quantity.

Note: The quantity must be greater than 0.

Reason. Optionally, enter a reason that will be assigned to all jobs and tasks.

Remarks. Optionally, enter remarks that will be assigned to all jobs and tasks

Create Jobs. Select the checkbox to create Warehouse Jobs.

Note: If you choose to Create Warehouse Jobs, use the Create Tasks action to generate tasks for the Warehouse Jobs created in this action.

Create Jobs & Tasks. Select the checkbox to create Warehouse Jobs and Warehouse Tasks.

Replenishment Locations > Bulk > Manual Replenishment Requests

The Bulk Manual Replenishment Requests action in the Replenishment Locations allows you to manage and update multiple replenishment requests simultaneously, manually setting the replenishment quantity.

Search Criteria. Displays the search data entered in the browse filter.

Create Jobs. Select the checkbox to create Warehouse Jobs.

Note: If you choose to Create Warehouse Jobs, use the Create Tasks action to generate tasks for the Warehouse Jobs created in this action.

Create Jobs & Tasks. Select the checkbox to create Warehouse Jobs, job lines, and Warehouse Tasks. If you select this checkbox then the From Area field and Display Task Details checkbox should be visible and enabled. You can only select one checkbox either Create Jobs or Create Jobs & Tasks.

From Site. Enter the From Site. This field is mandatory. If you enter a From Site in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

From Warehouse. Enter the From Warehouse. This is a mandatory field. If you enter a From Warehouse in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

From Area. Enter an area associated with the warehouse. This field is only visible if you select the Create Jobs & Tasks checkbox.

Display Task Details. Select this checkbox if you want to see the task details in the Requests Grid. This field is only enabled if you select the Create Jobs & Tasks checkbox.

Wave. Optionally, select the checkbox and assign a Wave that will be assigned to all records in the grid. You can click the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges browse.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field. You can also manually overwrite the wave directly in the grid for each record.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

Search Button. Select Search to populate the Requests grid based on the information entered in the Criteria and Options panels.

Select (Checkbox). Specify the locations/items to be replenished by selecting the corresponding checkbox.

Run Engine. Click the Run Engine button to calculate where the locations/items will be replenished from based on Warehousing setups. The Run Engine button will populate the From Area, From Storage Zone,

From Location, Serial, Lot/Serial, Reference, Quantity Loose, Quantity in Pack, Pack Code, Pack Code Description, External Serial, Origin Code, From Algorithm Type/Number, and To Algorithm Type/Number in the grid.

Note: The engine will also run automatically when the Submit button is selected.

Replenishment Storage Zone. Displays the storage zone to be replenished.

Replenishment Location. Displays the replenishment location.

Item. Displays the item to be replenished.

Description. Displays the item description.

Maximum Quantity. Displays the maximum quantity to be replenished. This is a read-only field.

Quantity Available. Displays the quantity available of the item. This is a read-only field.

Replenishment Quantity. Enter the quantity to replenish.

Replenishment UM. Displays the unit of measure defined for the replenishment location.

From Site. Displays the From Site for the inventory.

From Warehouse. Displays the From warehouse for the inventory. This is a read-only field.

From Area. Displays the from area. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read only field, and will be populated when the Run Engine button is clicked.

From Storage Zone. Displays the from storage zone. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read-only field, and will be populated when the Run Engine button is clicked.

From Location. Displays the from location. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read-only field, and will be populated when the Run Engine button is clicked.

Serial. Displays the serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Lot/serial. Displays the lot/serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Reference. Displays the reference. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Quantity Loose. Displays the loose quantity. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Quantity In Pack. Displays the pack quantity. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Pack Code. Displays the pack code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Pack Code Description. Displays the description of the pack code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

External Serial. Displays the external serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Origin Code. Displays the serial's Origin Code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

To Site. Displays the site where inventory is being transferred to.

To Warehouse. Displays the warehouse where inventory is being transferred to.

To Area. Displays the area where inventory is being transferred to. This field is visible only when Create Jobs & Tasks is selected.

From Algorithm Type/Number. Displays the From Algorithm.

To Algorithm Type/Number. Displays the To Algorithm.

Replenishment Locations > Bulk > Replenishment Requests

Search Criteria. Displays the search data entered in the browse filter.

Create Jobs. Select the checkbox to create Warehouse Jobs. You can only select one checkbox—either Create Jobs or Create Jobs & Tasks.

Note: If you choose to Create Warehouse Jobs, use the Create Tasks action to generate tasks for the Warehouse Jobs created in this action.

Create Jobs & Tasks. Select the checkbox to create Warehouse Jobs, and Warehouse tasks. If you select this checkbox then the From Area field and Display Task Details checkbox should be visible and enabled. You can only select one checkbox—either Create Jobs or Create Jobs & Tasks.

From Site. Enter the From Site. This field is mandatory. If you enter a From Site in the filter of the Warehouse Tasks browse with the operator "equals", the field defaults automatically.

From Warehouse. Enter the From Warehouse. This is a mandatory field. If you enter a From Warehouse in the filter of the Warehouse Tasks browse with the operator "equals", the field defaults automatically.

Note: If there is a filter in the browse for Warehouse equals, then the From Warehouse will be defaulted to this.

From Area. Enter the From Area. This field is only visible if the Create Jobs & Tasks checkbox is selected.

Display Task Details. Select this checkbox if you want to see the task details in the Requests Grid. This field is only enabled if the Create Jobs & Tasks checkbox is selected.

Wave. Optionally, select the checkbox and assign a Wave that will be assigned to all records in the grid. You can click the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges browse.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field. You can also manually overwrite the wave directly in the grid for each record.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Replenishment Point Adjustment. Specify the replenishment point adjustment percentage, which is the quantity in stock that triggers the replenishment to occur. The default is 100%.

Search Button. Select Search to populate the Requests grid based on the information entered in the Criteria and Options panels.

Select (Checkbox). Specify the locations/items to be replenished by selecting the corresponding checkbox.

Run Engine. Click the Run Engine button to calculate where the locations/items will be replenished based on Warehousing setups. The Run Engine button will populate the From Area, From Storage Zone, From Location, Serial, Lot/Serial, Reference, Quantity Loose, Quantity in Pack, Pack Code, Pack Code Description, External Serial, Origin Code, From Algorithm Type/Number, and To Algorithm Type/Number in the grid.

Replenishment Storage Zone. Displays the storage zone to be replenished.

Replenishment Location. Displays the replenishment location. Calculate which Locations will need to be replenished.

Item. Displays the item to be replenished.

Description. Displays a short description of the item.

Maximum Quantity. Displays the maximum quantity to be replenished. This is a read-only field.

Replenishment Point. Displays the quantity at which the location should be replenished. This is a read-only field.

Quantity Available. Displays the quantity available. This is a read-only field.

Replenishment Quantity. Displays the replenishment quantity.

Replenishment UM. Displays the unit of measure defined for the replenishment location.

From Site. Displays the From site. This is a read-only field.

From Warehouse. Displays the From warehouse. This is a read-only field.

From Area. Displays the From area. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read-only field, and will be populated when the Run Engine button is clicked.

From Storage Zone. Displays the From storage zone. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read-only field, and will be populated when the Run Engine button is selected.

From Location. Displays the From location. This field is visible only when the Create Jobs & Tasks checkbox is selected. This is a read-only field, and will be populated when the Run Engine button is clicked.

Serial. Displays the serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Lot/serial. Displays the lot/serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Reference. Displays the reference. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Quantity Loose. Displays the loose quantity. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Quantity In Pack. Displays the pack quantity. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Pack Code. Displays the pack code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Pack Code Description. Displays the description of the pack code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

External Serial. Displays the external serial. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

Origin Code. Displays the serial's Origin Code. This field is visible only when you select the Create Jobs & Tasks and Display Task Details checkboxes. This is a read-only field, and will be populated when the Run Engine button is selected.

To Site. Displays the site where inventory is being transferred to.

To Warehouse. Displays the warehouse where inventory is being transferred to.

To Area. Displays the area where inventory is being transferred to. This field is visible only when Create Jobs & Tasks is selected.

From Algorithm Type/Number. Displays the From Algorithm. This field is visible only when the Create Jobs & Tasks and Display Task Details checkboxes are selected.

To Algorithm Type/Number. Displays the To Algorithm. This field is visible only when the Create Jobs & Tasks and Display Task Details checkboxes are selected.

Sales Order and Distribution Order Picking Requests

Warehouse Pre-Shippers/Shippers > Picking Requests

The Picking Requests Action in Warehouse Pre-Shippers/Shippers browse allows you to create Warehouse Jobs and Warehouse Tasks for Sales Orders and Distribution Orders, to pick both loose and serialized inventory and move it to designated warehouse shipping locations.

Note: Before starting to use Warehousing for the first time, you should confirm any existing shippers.

Note: Shippers with multiple sites are not yet supported.

Note: Jobs and tasks will not reflect changes made to pre-shippers/shippers after the jobs and tasks are initially created.

Search Criteria. Displays the search data entered in the browse filter.

Create Jobs. Select this checkbox to create Warehouse Jobs for a Pre-Shipper or Shipper.

Note: If you choose to Create Warehouse Jobs, use the Create Tasks action to generate tasks for the Warehouse Jobs created in this action.

Create Jobs & Tasks. Select this checkbox to create Warehouse Jobs and Warehouse Tasks for the pre-shipper/shipper.

Note: Only one of the checkboxes must be checked.

From Site. Enter the From Site. This is a mandatory field. If the filter in the Warehouse Pre-Shippers/Shippers browse is entered as Ship-From equals [Site], the From Site will default automatically.

From Warehouse. Enter the From Warehouse. This is a mandatory field.

From Area. Enter the From area. This is an optional field. If a From Area is entered, the area entered will be populated in the grid for all records.

Note: This field is only enabled when you select the Create Jobs and Tasks checkbox.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

Wave. Optionally, select the checkbox and assign a Wave that will be assigned to all records in the grid. You can click the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges screen.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field.

Note: You can also manually overwrite the wave directly in the grid for each record.

Priority. Optionally, select the checkbox and assign a priority that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority directly in the grid for each record.

Priority Increment. Optionally, select the checkbox and assign a priority increment that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority increment directly in the grid for each record.

Display Shipper Details. Select this checkbox to display additional details about the Pre-Shippers and Shippers in the grid.

Note: This field is only visible when you select the Create Jobs and Tasks checkbox.

To Area. Optionally, select the checkbox and enter a To Area that will be assigned to all records in the grid.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

To Storage Zone. Optionally, select the checkbox and enter a To Storage Zone that will be assigned to all records in the grid.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

To Location. Optionally, select the checkbox and enter a To Location that will be assigned to all records in the grid.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

Note: You can also manually overwrite the To Location directly in the grid for each record.

Search Button. Select Search to populate the Requests panel with the Pre-Shippers/Shippers to be picked based on the information entered in the Criteria and Options panels.

Run Engine (button). Click the Run Engine button to calculate the serials and/or loose inventory to be picked based on Warehousing setups. The Run Engine button will populate the Serial, To Site, To Warehouse, To Area, To Storage Zone, To Location, Current Utilization, From Algorithm Type/Number, To Algorithm Type/Number, Lot/Serial, Reference, Stage, Pack Code, Pack Code, Pack Code Description, From Area, From Storage Zone, and From Location and External Serial fields in the grid.

Note: The engine will process Sales Order shippers first, and then process Distribution Order shippers.

Note: The Engine will also run automatically when the Submit button is clicked.

Requests (Checkbox). Specify which Pre-Shippers/Shippers will be picked by selecting the corresponding checkbox.

Pre-Shipper/Shipper. Displays the Pre-Shipper/Shipper.

Type. Displays the type of order.

Note: This field is only available when Create Jobs & Tasks and display shipper details are both selected.

Item. Displays the item being picked. This can be an item in a pack or a loose item. If there are multiple items in the pack, this field is blank.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Description. Displays the item description. If there are multiple items in the pack, this field is blank.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Order. Displays the Order associated with the Pre-Shipper/Shipper.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Line. Displays the Order Line associated with the Pre-Shipper/Shipper.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Requisition. Displays the requisition order number.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Total Quantity. Displays the total quantity for the Item/Order/Line from the Pre-Shipper/Shipper.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

Serial. Displays the master serial that will be picked. If the row contains loose inventory, this field is blank.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

From Site. Displays the site entered in the Options panel.

From Warehouse. Displays the warehouse entered in the Options panel.

From Area. Displays the area for the inventory to be picked

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

From Storage Zone. Displays the storage zone for the inventory to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

From Location. Displays the location for the inventory to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

To Site. Displays the To Site. If the To Location is populated, this will be calculated based on the To Location. If the To Location is not populated, this will automatically be calculated when the engine is run.

Note: This field is only available when Create Jobs & Tasks and Display Shipper Details are both selected.

To Warehouse. Displays the To Warehouse. If the To Location is populated, this will be calculated based on the To Location. If the To Location is not populated, this will automatically be calculated when the engine is run.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

To Area. Displays the To Area. If the To Location is populated, this will be calculated based on the To Location. If the To Location is not populated, this will automatically be calculated when the engine is run.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

To Storage Zone. Displays the To Storage Zone. If the To Location is populated, this will be calculated based on the To Location. If the To Location is not populated, this will automatically be calculated when the engine is run.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

To Location. Displays the To Location. If the To Location is not populated, this will automatically be calculated when the engine is run. This field can be manually updated in the grid to override the To Location calculated by the engine.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

Current Utilization %. Displays the current To Location utilization.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

From Algorithm Type/Number. Displays the algorithm type/number used by the engine.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

To Algorithm Type/Number. Displays the algorithm type/number used by the engine.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Lot/Serial. Displays the lot/serial to be picked. If the pack is a mixed pack, this field is blank.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Reference. Displays the reference.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Ship-To. Displays the ship-to from the pre-shipper/shipper.

Customer Name. Displays the customer name from the pre-shipper/shipper.

Carrier. Displays the first carrier from the pre-shipper/shipper.

Ship Via. Displays the ship via from the pre-shipper/shipper.

Stage. Displays the stage of the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Pack Code. Displays the pack code of the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Pack Code Description. Displays the pack code description for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

External Serial. Displays the external serial for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Origin Code. Displays the origin code for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Commission Date. Displays the commission date for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Shipper Details checkboxes are both selected.

Production Order Picking Requests

Warehouse Production Picklists > Picking Requests

The Picking Requests action allows you to efficiently create picking requests for components on production order picklists. This generates warehouse jobs and warehouse tasks to pick both loose and serialized inventory, moving them to designated production locations.

Search Criteria. Displays the search data entered in the browse filter.

Create Jobs. Select this checkbox to create warehouse jobs for the picklist.

Note: If you choose to create warehouse jobs, use the Create Tasks action to generate tasks for the warehouse jobs created in this action.

Create Jobs & Tasks. Select this checkbox to create warehouse jobs and warehouse tasks for the picklist.

Note: One of the checkboxes must be checked.

From Site. Enter the From Site. This is a mandatory field. If the filter in the Warehouse Production Picklists browse is entered as Site equals [Site], the From Site will default automatically.

From Warehouse. Enter the From Warehouse. This is a mandatory field. The warehouse entered will be populated in the grid for all records.

From Area. Enter the From area. This is an optional field. If a From Area is entered, the area entered will be populated in the grid for all records.

Note: This field is only enabled when you select the Create Jobs and Tasks checkbox.

Display Picklist Details. Select this checkbox to display additional details about the picklist in the Requests grid.

Note: This field is only visible when you select the Create Jobs and Tasks checkbox.

Wave. Optionally, select the checkbox and assign a wave that will be assigned to all records in the grid. You can click on the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges screen.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field.

Note: You can also manually overwrite the wave directly in the grid for each record.

Priority. Optionally, select the checkbox and assign a priority that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority directly in the grid for each record.

Priority Increment. Optionally, select the checkbox and assign a priority increment that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority increment directly in the grid for each record.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

Search. Select Search to populate the Requests panel based on the information entered in the Criteria and Options panels.

Note: Only components with a pick policy of Transfer are displayed in the grid.

Run Engine (button). Click the Run Engine button to populate the grid based on warehousing setups. The Run Engine button populates the Serial, From Area, From Storage Zone, From Location, From Algorithm Type/Number, To Algorithm Type/Number, Lot/Serial, Reference, Stage, Pack Code, Pack Code Description, External Serial, Origin Code, and Commission Date fields in the grid.

Note: The Engine also runs automatically when the Submit button is clicked.

Requests Checkbox. Specify which picklists to include by selecting the corresponding checkbox.

Note: For picklists with multiple lines in the grid, selecting any single record automatically selects all other lines for that picklist. If all records for a picklist were previously selected, unselecting one will automatically unselect all remaining associated lines.

Picklist. Displays the picklist.

Picklist Seq. Displays the picklist sequence.

Picklist Type. Displays the picklist type.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Production Order. Displays the production order associated with the picklist.

ID. Displays the production order ID associated with the picklist.

Item. Displays the item from the picklist. It can be an item in a pack or a loose item.

Note: This field is only available when the Create Jobs checkbox is selected, or both the Create Jobs & Tasks and Display Picklist Details checkboxes are selected.

Description. Displays the item description.

Note: This field is only available when the Create Jobs checkbox is selected, or both the Create Jobs & Tasks and Display Picklist Details checkboxes are selected.

Production Line. Displays the production line associated with the production order.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Operation. Displays the operation number associated with the production order.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Quantity Open. Displays the quantity open from the picklist.

Note: This field is only available when the Create Jobs checkbox is selected, or both the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Serial. Displays the master serial that will be picked. If the row contains loose inventory, this field is blank.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

From Site. Displays the site entered in the Options panel.

From Warehouse. Displays the warehouse entered in the Options panel.

From Area. Displays the area entered in the Options panel.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

From Storage Zone. Displays the storage zone for the inventory to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

From Location. Displays the location for the inventory to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

To Site. Displays the To Site based on the Destination Location field.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

To Warehouse. Displays the To Warehouse based on the Destination Location field.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

To Area. Displays the To Area based on the Destination Location field.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

To Storage Zone. Displays the To Storage Zone based on the Destination Location field.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

Destination Location. The destination location of the inventory, from the picklist.

Note: This field is only available when the Create Jobs & Tasks checkbox is selected.

Current Utilization %. Displays the current destination location utilization.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

From Algorithm Type/Number. Displays the algorithm type or number used by the engine.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

To Algorithm Type/Number. Displays the algorithm type or number used by the engine.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Lot/Serial. Displays the lot or serial number from the picklist.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Reference. Displays the reference.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Stage. Displays the stage of the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Pack Code, Displays the pack code of the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Pack Code Description. Displays the pack code description for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

External Serial. Displays the external serial for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Origin Code. Displays the origin code for the serial to be picked.

Note: This field is only available when both the Create Jobs & Tasks and Display Picklist Details checkboxes are selected.

Commission Date. Displays the commission date for the serial to be picked.

Note: This field is only available when the Create Jobs & Tasks and Display Picklist Details checkboxes are both selected.

Create Tasks Action

Warehouse Jobs > Bulk > Create Tasks

Use the Create Tasks action in Warehouse Jobs to create tasks for job lines that do not have tasks created for them yet.

Search Criteria. Displays the search data entered in the browse filter.

Site. Enter the site to filter the jobs that are displayed in the grid. If you enter a Site in the filter of the Warehouse Jobs browse with the operator “equals”, the field defaults automatically. This field is mandatory.

Warehouse. Enter the warehouse to filter the jobs that are displayed in the grid. If you enter a Warehouse in the filter of the Warehouse Jobs browse with the operator “equals”, the field defaults automatically. This field is mandatory.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

Wave. Optionally, select the checkbox and assign a Wave that will be assigned to all records in the grid. You can click the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges screen.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field. You can also manually overwrite the wave directly in the grid for each record.

Priority. Optionally, select the checkbox and assign a priority that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority directly in the grid for each record.

Priority Increment. Optionally, select the checkbox and assign a priority increment that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority increment directly in the grid for each record.

Search Button. Select Search to populate the Requests grid based on the information in the Criteria and Options panels.

Selection Checkbox. Select the corresponding checkbox to specify which job line will have tasks created after you click Submit.

Job. Displays the warehouse job. This is a read-only field.

Transaction Type. Displays the transaction type associated with the warehouse job. This is a read-only field.

Status. Displays the status of the job. This is a read-only field.

Picklist. Displays the picklist associated with the job. This is a read-only field.

Shipper. Displays the shipper associated with the job. This is a read-only field.

Wave. Optionally, assign a wave. This will default from the Options panel. In addition to being assigned in the task, the wave assigned will also update in the Job.

Priority. Optionally, assign the priority. This will default from the Options panel. In addition to being assigned in the task, the priority assigned will also update in the Job.

Priority Increment. Optionally, assign the priority increment. This will default from the Options panel. In addition to being assigned in the task, the priority increment assigned will also update in the Job.

Reason. Optionally, assign a reason. This will default from the Options panel. In addition to being assigned in the task, the reason assigned will also update in the Job.

Remarks. Optionally, assign remarks. This will default from the Options panel. In addition to being assigned in the task, the Remarks assigned will also update in the Job.

Modifying Jobs and Tasks

The following screens are used to modify existing jobs and tasks:

- Warehouse Tasks
- Warehouse Tasks > Bulk Edit action
- Warehouse Jobs
- Warehouse Jobs > Bulk Edit action
- Warehouse Task Delete & Archive

Warehouse Tasks

Use Warehouse Tasks to view and modify existing tasks. A task covers an individual action that must take place to move inventory appropriately.

Users are also able to change the status of a task. For example, if a job does not need to be performed anymore, a supervisor with access to this function can change the status to Canceled so that the task does not appear in the scanner and the task is no longer performed.

The following are the task statuses:

- New. The task has been created and is ready to be performed by the user. Users can change the status of a task from New to Canceled.
- In Process. The task is being performed by the user. Other users who are allowed to perform the same tasks types are not able to see it on the display and work on it. When a user begins work using a handheld scanner, tasks will automatically change status to In Process.
- Completed. The task has been completed by the user. All requirements existing in the task details have been performed.

- Canceled. The task had been canceled.
- Exported. Indicates the task is being exported to third-party software and does not need to be maintained in this QAD software.
    - Note: This status is for future use and is not currently supported.

Job. Displays the job number.

Task. Displays the task number.

Priority. Displays the priority for the task.

Status. Displays the status of the task. When a task is created, it will be in the New status. When a user begins work using a handheld scanner, the status will automatically change to In Process. When a task is confirmed, the status will automatically change to Completed. You can manually change the status to Canceled if it is no longer needed.

Assigned User. Displays the user assigned to the task.

Wave. Displays the wave assigned to the task.

Reason. Displays the reason for the task.

Remarks. Displays the remarks for the task.

Job Line. Displays the job line.

Sequence. Displays the task sequence.

Priority Increment. Displays the priority increment for the task.

Material Routing. Displays the material routing assigned to the task.

Hard Assign. Select the checkbox to hard assign a user for the task

Task Type. Displays the task type for the task. This is a mandatory field.

Transaction Type. Displays the transaction type of the task

Expected Quantity. Displays the expected quantity for the task.

From Warehouse. Displays the warehouse where the inventory is from.

From Site. Displays the site where the inventory is from.

From Storage Zone. Displays the storage zone where the inventory is from.

From Work Zone. Displays the work zone where the inventory is from.

From Location. Displays the location where the inventory is from.

From Item. Displays the From Item. If there are multiple items in the pack, this field is blank.

From Lot/Serial. Displays the From Lot/Serial.

From Reference. Displays the From Reference.

From Serial. Displays the From Serial.

From Pack Code. Displays the pack code of the From Serial.

Confirmed Quantity. Displays the confirmed quantity.

To Warehouse. Displays the warehouse where the inventory will be moved to.

To Site. Displays the site where the inventory will be moved to.

To Storage Zone. Displays the storage zone where the inventory will be moved to.

To Work Zone. Displays the work zone where the inventory will be moved to.

To Location. Displays the location where the inventory will be moved to. This is the to location from the Picking Request. Typically, this would not be changed. This is a mandatory field.

Note: When entering the To Location, the To Work Zone, and To Storage Zone fields will be populated accordingly.

To Item. Displays the To Item. If there are multiple items in the pack, this field is blank.

To Lot/Serial. Displays the To Lot/Serial.

To Reference. Displays the To Reference.

To Serial. Displays the To Serial.

To Pack Code. Displays the pack code of the To Serial.

Warehouse Tasks > Bulk > Bulk Edit

The Bulk Edit action in the Warehouse Tasks screen allows you to manage and update multiple warehouse tasks that are in the New status simultaneously.

Search Criteria. Displays the search data entered in the browse filter.

From Site. Enter the From Site. If you enter a From Site in the filter of the Warehouse Tasks browse with the operator “equals”, the field will default automatically. This is a mandatory field.

From Warehouse. Enter the From Warehouse. If you enter a From Warehouse in the filter of the Warehouse Tasks browse with the operator “equals”, the field will default automatically. This is a mandatory field.

Status. Optionally, select the checkbox and select Canceled, which will be assigned to all records in the grid. **Note:** The only status you can manually change a task to is Canceled.

Note: You can also manually update the status directly in the grid for each record.

Task Type. Optionally, select the checkbox and assign a task type that will be assigned to all records in the grid.

Note: You can also manually update the task type directly in the grid for each record

Wave. Optionally, select the checkbox and assign a wave that will be assigned to all records in the grid.

Note: You can also manually update the wave directly in the grid for each record.

Priority. Optionally, select the checkbox and assign a priority that will be assigned to all records in the grid.

Note: You can also manually update the priority directly in the grid for each record.

Priority Increment. Optionally, select the checkbox and assign a priority increment that will be assigned to all records in the grid.

Note: You can also manually update the priority increment directly in the grid for each record.

Assigned User. Optionally, select the checkbox and assign a user, which will be assigned to all records in the grid.

Note: You can also manually update the Assigned User directly in the grid for each record.

To Location. Optionally, select the checkbox and enter a To Location that will be assigned to all records in the grid.

Note: You can also manually update the To Location directly in the grid for each record.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually update the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually update the remarks directly in the grid for each record.

Search Button. Select Search to populate the Tasks grid with the tasks to be edited based on the information entered in the Criteria and Options panels.

Reset Button. Select Reset to blank all the fields in the Options panel.

Selection Checkbox. Specify which tasks will be edited after the Submit button is clicked by selecting the corresponding checkbox.

Job. Displays the warehouse job associated with the task. This is a read-only field.

Job Line. Displays the warehouse job line. This is a read-only field.

Task. Displays the warehouse task. This is a read-only field.

Task Sequence. Displays the warehouse task sequence. This is a read-only field.

Task Type. Assign a task type. If you enter a task type in the Options panel, the field defaults to that value. This is a mandatory field.

Current Status. Displays the current status of the task. This is a read-only field.

New Status. Optionally, change the status to Canceled. If you set the Status in the Options panel, the field defaults to Canceled.

Wave. Optionally, assign a wave. If you enter a wave in the Options panel, the field defaults to that value.

Priority. Optionally, assign the priority. If you enter a priority in the Options panel, the field defaults to that value.

Priority Increment. Optionally, assign the priority increment. If you enter a priority increment in the Options panel, the field defaults to that value.

Material Routing. Displays the material routing for the task. This is a read-only field.

Hard Assign. Select this checkbox when a specific Task requires completion by a specific user, defined in the Assigned User field.

Assigned User. Optionally, enter an assigned user. If you enter an assigned user in the Options panel, the field defaults to that value.

Reason. Optionally, assign a reason. If you enter a reason in the Options panel, the field defaults to that value.

Remarks. Optionally, assign remarks. If you enter remarks in the Options panel, the field defaults to that value.

Expected Quantity. Displays the expected quantity for the task. This is a read-only field.

Confirmed Quantity. Displays the confirmed quantity for the task. This is a read-only field.

From Location. Displays the From Location for the task. This is a read-only field.

To Location. Assign the To Location. If you enter a To Location in the Options panel, the field defaults to that value. This is a mandatory field.

Warehouse Jobs

Warehouse Jobs allows you to manage and edit existing jobs, updating priorities, grouping jobs, or releasing jobs to the warehouse to fulfill.

Warehouse Jobs covers a group of actions that need to occur. In the Warehouse Jobs detail panel, the specific items/order lines to pick, put away, or replenish are captured as well as the exact quantities needed. Some fields in the Main panel and Job Details panel may be visible or not depending on the Transaction Type of the job.

Job. Displays the ID of the job. This is a read-only field.

Status. Displays the status of the job:

- New: Indicates the job is created.
- In Process: Indicates at least one of the associated tasks are in process.
- Exported: Indicates the job and its associated Job Lines and Tasks are being exported to third-party software and does not need to be maintained in this QAD software. **Note:** This status is for future use and is not currently supported
- Completed: Indicates all of the associated tasks are completed or canceled.
- Canceled. Indicates that the job and all associated tasks are canceled.

Note: The only value to which the Status can be manually changed to is Canceled.

Note: If the job status is Completed or Canceled, the only field that can be modified is the Remarks field. All other fields will become read-only.

Wave. Displays the wave assigned to the job.

Priority. Displays the priority of the job.

Reason. Displays the reason associated with the job.

Remarks. Displays the remarks associated with the job.

Created By. Displays the user who created the job. This is a read-only field.

Last Modified By. Displays the user who last modified the job. This is a read-only field.

Closed By. Displays the user who closed the job. This is a read-only field.

Transaction Type. Displays the transaction type associated with the job. This is a read-only field. Depending on the transaction type, some fields may not be visible.

Warehouse. Displays the warehouse associated with the specified job. This is a read-only field.

Site. Displays the site associated with the job. This is a read-only field.

Priority Increment. Displays the priority increment associated with the job.

Shipper. Displays the shipper associated with the job. This is a read-only field. This field is visible only if the transaction type is PICK-SO.

Picklist. Displays the picklist number associated with the job. This is a read-only field. This field is visible only if the transaction type is PICK-WO.

Created Date/Time. Displays the date and time when the job was created. This is a read-only field.

Last Modified Date/Time. Displays the date and time when the record was last modified. This is a read-only field.

Closed By. Displays the user who closed the job. This is a read-only field.

Job Line. Displays the number line associated with the job. This is a read-only field.

Item. Displays the item. This is a read-only field.

Description. Displays the item description. This is a read-only field.

Status. Displays the status of the job line status. This is a read-only field.

Note: If Job Status in the Main Panel is changed to Canceled, the Job Line Status will automatically be changed to Canceled.

Quantity Required. Displays the quantity required for the job line.

Quantity Canceled. Displays the quantity canceled for the job line.

Quantity Completed. Displays the quantity completed for the job line.

Quantity Open. Displays the open quantity for the job line.

Order. Displays the sales order or distribution order associated with the job. This field is visible only if the transaction type is PICK-SO or PICK-DO. This is a read-only field.

Order Line. Displays the sales order line associated with the job. This field is visible only if the transaction type is PICK-SO. This is a read-only field.

Requisition. Displays the requisition number from the distribution order associated with the job. This field is visible only if the transaction type is PICK-DO. This is a read-only field

Replenishment Storage Zone. Displays the replenishment storage zone associated with the job. This field is visible only if the transaction type is PICK-RE. This is a read-only field.

Replenishment Location. Displays the replenishment location associated with the job. This field is visible only if the transaction type is PICK-RE. This is a read-only field.

Last Modified By. Displays the user who last modified the job. This is a read-only field.

Last Modified Date/Time. Displays the date and time when the job was last modified. This is a read-only field.

Closed Date/Time. Displays the date and time when the job was closed. This is a read-only field.

Warehouse Jobs > Bulk > Bulk Edit

The Bulk Edit action in the Warehouse Jobs screen allows you to manage and update multiple warehouse jobs that are in the New or In Process status simultaneously.

Search Criteria. Displays the search data entered in the browse filter.

Wave. Optionally, select the checkbox and assign a wave that will be assigned to all records in the grid. You can click the Generate Wave button to create a new wave based on a predefined setup in the Number Ranges screen.

Note: You can only use the Generate Wave button if there is no wave already populated in the Wave field. You can also manually overwrite the wave directly in the grid for each record.

Priority. Optionally, select the checkbox and assign a priority that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority directly in the grid for each record.

Priority Increment. Optionally, select the checkbox and assign a priority increment that will be assigned to all records in the grid.

Note: You can also manually overwrite the priority increment directly in the grid for each record.

Status. Optionally, select the checkbox and assign the Canceled status, which will be assigned to all records in the grid.

Note: You can also manually overwrite the status directly in the grid for each record.

Reason. Optionally, enter a reason that will be assigned to all records in the grid.

Note: You can also manually overwrite the reason directly in the grid for each record.

Remarks. Optionally, enter remarks that will be assigned to all records in the grid.

Note: You can also manually overwrite the remarks directly in the grid for each record.

Search Button. Select Search to populate the Jobs panel with the jobs to be updated based on the information entered in the Criteria and Options panels.

Reset Button. Select Reset to blank all the fields.

Selection Checkbox. Specify which jobs will be edited after the Submit button is clicked by selecting the corresponding checkbox.

Job. Displays the warehouse job. This is a read-only field.

Transaction Type. Displays the transaction type associated with the warehouse job. This is a read-only field.

Current Status. Displays the current status of the job. This is a read-only field.

New Status. Optionally, assign the canceled status. If you assign the canceled status in the Options panel, the field defaults to canceled.

Wave. Optionally, assign a wave. If you enter a wave in the Options panel, the field defaults to that value.

Priority. Optionally, assign the priority. If you enter a priority in the Options panel, the field defaults to that value.

Priority Increment. Optionally, assign the priority increment. If you enter a priority increment in the Options panel, the field defaults to that value.

Reason. Optionally, assign a reason. If you enter a reason in the Options panel, the field defaults to that value.

Remarks. Optionally, assign remarks. If you enter remarks in the Options panel, the field defaults to that value.

Warehouse. Displays the warehouse associated with the job. This is a read-only field.

Site. Displays the site associated with the job. This is a read-only field.

Shipper. Displays the shipper associated with the job. This is a read-only field.

Created By. Displays the user who created the job. This is a read-only field.

Created Date/Time. Displays the date and time when the job was created. This is a read-only field.

Last Modified By. Indicates the last user who modified the job. This is a read-only field.

Last Modified Date/Time. Displays the date and time when the job was last modified. This is a read-only field.

Confirming Tasks

Warehouse Tasks > Bulk > Confirm Tasks

The Confirm Tasks action in the Warehouse Tasks screen allows you to confirm multiple tasks at one time, transferring and picking the inventory on the task. In most cases, the confirm process will be done using the DC transactions by users in the warehouse, but this action is available for back office users to complete the tasks if required.

Note: When you confirm a putaway task with a stage-in location, the system automatically creates a new task to move the inventory to the final location.

Search Criteria. Displays the search data entered in the Warehouse Tasks browse filter.

Task Type. Optionally, enter the task type. If you enter a task type in the filter of the Warehouse Tasks browse with the operator “equals”, the field defaults automatically.

Transaction Type. Optionally, enter the transaction type.

From Warehouse. Enter the From Warehouse. If you enter a From Warehouse in the filter of the Warehouse Tasks browse with the operator “equals”, the field will default automatically. This is a mandatory field.

From Site. Enter the From Site. If you enter a From Site in the filter of the Warehouse Tasks browse with the operator “equals”, the field will default automatically. This is a mandatory field.

Effective Date. Enter the effective date when the action will be applied. The default is the system date.

Search Button. Select Search to populate the Tasks panel with the tasks to be confirmed based on the information entered in the Criteria and Options panels.

Reset Button. Select Reset to blank all the fields in the Options panel.

Select Checkbox. Specify which tasks will be confirmed after the Submit button is clicked by selecting the corresponding checkbox.

Job. Displays the warehouse job associated with the task.

Job Line. Displays the warehouse job line.

Task. Displays the warehouse task.

Task Type. Displays the task type.

Status. Displays the current status of the task.

Serial. Displays the master serial associated with the task. If the row contains loose inventory, this field is blank.

Pack Code. Displays the pack code of the serial associated with the task. If the row contains loose inventory, this field is blank.

Pack Code Description. Displays the description of the pack code. If the row contains loose inventory, this field is blank.

Confirmed Quantity. Displays the confirmed quantity for the task.

UM. Displays the UM of the item in the task.

Item. Displays the item associated with the task. If there are multiple items in the pack, this field is blank.

Description. Displays the item description. If there are multiple items in the pack, this field is blank.

From Lot/Serial. Displays the From Lot/serial for the inventory. If the pack is a mixed pack, this field is blank.

From Reference. Displays the From Reference. If there are multiple items in the pack, this field is blank.

From Location. Displays the From location for the inventory.

To Lot/Serial. Displays the To Lot/serial. If the pack is a mixed pack, this field is blank.

To Reference. Displays the To Reference. If there are multiple items in the pack, this field is blank.

To Location. Displays the To Location. If there are multiple items in the pack, this field is blank.

External Serial. Displays the external serial for the serial associated with the task.

Origin Code. Displays the origin code for the serial associated with the task.

Assigned User. Displays the assigned user for the task.

Order. Displays the order associated with the job.

Line. Displays the order line associated with the job.

Sequence. Displays the task sequence.

Warehousing Browses

Warehouse Job History

The Warehouse Job History browse displays all of the changes made to warehouse jobs and job lines, including when jobs are created, updated, and completed. The job history can be used in reporting and KPIs.

Warehouse Task History

The Warehouse Task History browse displays all of the changes made to warehouse tasks, including when tasks are created, updated, and completed. The task history can be used in reporting and KPIs.

Warehouse Location Capacity

The Warehouse Location Capacity browse allows you to view capacity utilization for warehouse locations. You can also create and manage Warehouse Locations in this screen.

Warehouse Location Items

The Warehouse Location Items screen allows you to view the item assignments for a warehouse location. You can also create and manage Warehouse Locations in this screen.

Warehouse Inventory Transactions

The Warehouse Inventory Transactions browse allows you to view inventory transactions created as a result of the putaway, picking, and replenishment activities. It is similar to the Inventory Transactions browse, but also includes warehousing information including warehouse, area, storage zone, work zone, and warehouse location.

Warehouse Serial History

The Warehouse Serial History browse allows you to view the serial history created from warehouse activities for serialized inventory. It is similar to the Serial History browse, but also includes warehousing information including warehouse, area, storage zone, and warehouse location.

Warehouse Serials

The Warehouse Serials browse allows you to view the serials in your warehouse. It is similar to the Serials browse, but also includes warehousing information including warehouse, area, storage zone, and warehouse location.

Warehouse Serialized Inventory

The Warehouse Serialized Inventory browse allows you to have a comprehensive view of inventory in your warehouse, including loose inventory and serialized inventory. It is similar to the Serialized Inventory browse, but also includes warehousing information including warehouse, area, storage zone, and warehouse location.

Deleting & Archiving Warehousing Data

Warehouse Task History Delete & Archive

Use Warehouse Task Delete & Archive to delete or archive tasks.

The system does not automatically delete historical information at period or year-end. You can delete this information as frequently or infrequently as you prefer. How often you should run this function depends on how long you need to retain historical information in your database. Most companies keep historical data for at least one year or longer, depending on availability of disk space.

You should run this function twice. First, run it with Delete set to No and review the report. Then, run it with Delete set to Yes.

When you set Delete to Yes, event and task records that satisfy the selection criteria are deleted from the database. If you set Archive to Yes, deleted data is copied to an ASCII file that can be reloaded using Archive File Reload. Otherwise, deleted data cannot be recovered. When Archive is Yes, selected data is stored in a file named xxYYMMDD.hst where xx is the record type and YYMMDD is the file creation date. If this file does not exist in the system, it is created. If it does exist because you already ran delete/archive on the same day, the system adds the additional archived records to the end of the file.

Since the generated file has no internal label or content description, you should keep a record of the file name and contents, in case you need to reload the data. Also, remember that you cannot selectively reload data from archive files. If an archive file contains data for an entire year and you need to access records for one month, you must reload all the data in the file to access the records you need.

Note: Date and time in the stored data are formatted based on the country code associated with the user who archived the data. If a user with a different date and time format reloads the data, load errors and corrupted data can occur.

To avoid these problems, use the same settings when archiving and reloading the data. Before loading data, use Users to temporarily change your country code to match that of the user who archived the data.

Site. Enter the site associated with the tasks that will be deleted and/or archived.

Warehouse. Enter the warehouse associated with the tasks that will be deleted and/or archived.

Task. Enter the tasks that will be deleted and/or archived.

Status. Select the status for the tasks that will be deleted and/or archived.

Created Date. Enter a range of dates associated with the tasks that will be deleted and/or archived.

Delete. Indicate whether to delete the selected records or to generate a report only.

- No. The selected records are not deleted. A report is generated listing the selected records.
- Yes. The selected records are deleted from your database and listed in a report.

Note: It is recommended that you run this function twice. First, run it with Delete set to No and review the report. Then, run it with Delete set to Yes.

Archive. Indicate whether to archive the selected records.

- No. The selected records are not copied to an ASCII file.
- Yes. The selected records are copied to an ASCII file. The system creates a file name in the following format: xxYYMMDD.hst, where xx identifies the module code or record type and YYMMDD is the file creation date. If this file does not exist, it is created. If it does exist, records are appended to the end.

Archive File. Enter the name of the file that will contain the exported data. Although the system generates a comma-delimited file, it does not add an extension. For example, if you want the file to be accessible to an external application that recognizes comma-separated value files, add .csv to the file name.

Warehousing Process Steps

The following sections describe how to use the Warehousing functionality to create jobs and tasks.

Creating Picking Tasks for a Sales Order or Distribution Order

To perform this procedure, the following must be set up:

- Warehouses
- Warehouse Areas
- Storage Zones
- Work Zones
- Warehouse Items
- Warehouse Locations
- Transaction Types (PICK-SO/PICK-DO Transaction Type)
- Warehouse Algorithms (Location Find and Picking types)
- Warehouse Algorithm Assignments (for PICK-SO/PICK-DO Transaction Types)
- Warehouse Task Types (Picking task type)
- Warehouse Task Type Assignments
- Material Routings
- Material Routing Assignments
- Sales Order or Distribution Order, as well as inventory to pick

Follow these steps to create picking jobs and tasks for a sales order or distribution order:

1. Generate a Pre-Shipper or Shipper
    a. For Sales Orders
        i. Use Picklist & Pre-Shipper – Automatic to generate a pre-shipper
        ii. Use Pre-Shippers to manually create a pre-shipper
        iii. Use Shippers to manually create a shipper.

   b. For Distribution Orders
      i. Use DO Picklist & Pre-Shipper - Automatic to generate a pre-shipper
      ii. Use Distribution Order Pre-Shipper to manually create a pre-shipper
      iii. Use Distribution Order Shipper to manually create a shipper
2. Use the Warehouse Pre-Shippers/Shippers > Picking Requests action to create the picking jobs and tasks for the pre-shipper/shipper. The Picking algorithms determine the inventory that will be picked and the Location Find algorithms determine the locations where the inventory will be transferred to.

   For more information, see Warehouse Pre-Shippers/Shippers > Picking Requests.

3. View the tasks that were created in the Warehouse Tasks Browse.
4. View the jobs that were created in the Warehouse Jobs Browse.

Creating Putaway Tasks

To perform this procedure, the following must be set up:

- Warehouses
- Warehouse Areas
- Storage Zones
- Storage Zone Lists
- Work Zones
- Warehouse Items
- Warehouse Locations
- Transaction Types (PUT-TR Transaction Type)
- Warehouse Algorithms (Location Find or Putaway Algorithm Type)
- Warehouse Algorithm Assignments
- Warehouse Task Types (Putaway task type)
- Warehouse Task Type Assignments
- Material Routings
- Material Routing Assignments

Follow these steps to create putaway jobs and tasks:

1. Optionally, use Putaway Simulation to simulate where the inventory will be transferred to during the putaway process. The system displays the location, area, and storage zone where the inventory would have been transferred to if the simulation had been carried out as a real putaway process. This step is very helpful to check if all the setups associated with the layout and the putaway algorithms have been set up correctly. For more information, see Putaway Simulation.
2. Use the Warehouse Inventory Detail > Putaway Requests action to generate warehouse jobs and tasks for the putaway of loose and serialized inventory to designated warehouse locations. You can specify exact areas, storage zones, or locations to use, if needed, or allow the system to determine them based on your warehousing setups.

For more information, see Warehouse Inventory Detail > Putaway Requests.

1. View the putaway tasks that were created in Warehouse Tasks.
2. View the putaway jobs that were created in Warehouse Jobs.

Creating Replenishment Requests

To perform this procedure, the following must be set up:

- Warehouses
- Warehouse Areas
- Storage Zones
- Work Zones
- Warehouse Items
- Warehouse Locations
- Replenishment Lists
- Replenishment Locations
- Transaction Types (PICK-RE Transaction Type)
- Warehouse Algorithms (Picking Algorithm Type)
- Warehouse Algorithm Assignments
- Warehouse Task Types (Replen task type)
- Warehouse Task Type Assignments
- Material Routings
- Material Routing Assignments

Follow these steps to create replenishment jobs and tasks:

1. Use the actions in the Replenishment Locations screen to create replenishment jobs and tasks. The inventory that is selected is based on picking algorithms. For more information, see Replenishment Requests.
    a. The Individual Manual Replenishment Request action allows you to select a specific replenishment location/item to create replenishment jobs and tasks, manually setting the replenishment quantity.
    b. The Bulk Manual Replenishment Request action allows you to create replenishment jobs and tasks for multiple replenishment locations/items at the same time, manually setting the replenishment quantity for each location/item.
    c. The Bulk Replenishment Requests action allows you to create replenishment jobs and tasks for multiple replenishment locations/items at the same time, using the Replenishment Point percentage to calculate the quantities needed.
2. View the replenishment tasks that were created in Warehouse Tasks.
3. View the replenishment jobs that were created in Warehouse Jobs.

DC Transactions

DC Warehousing transactions in Warehousing include:

- Confirm Next Job
- Select Next Job
- Putaway
- Picking/Replenishment
- Batch Picking
- Cluster Picking
- Batch Picking - Dropping

Action Centers

Action Centers in the Warehousing module include:

- Warehousing Current Status Overview
- Warehousing Inventory Activities Performance
- Warehousing Lead & Cycle Time - Jobs
- Warehousing Lead & Cycle Time - Tasks
- Warehousing Pending Inventory Activities
- Warehousing Pending Warehouse Activities
- Warehousing Whse Activities Performance

Appendix A: Generalized Codes

This appendix lists the generalized codes used by Warehousing.

Table A.1 Warehousing - Generalized Codes

Field Name	Group
WE_ItemWarehouseType	APP
WE_Popularity	APP
We_ReplenishmentType	APP
WE_StorageType	APP
WE_TransporterType	APP
WE_WarehouseLocationType	APP