



Microsoft Dynamics® 2012 R2

Sales order management and catch weight

White Paper

This document describes the design and intended use of catch weight in the sales order management process for target industries. It also describes the parameters and processes that work out of box, and the parameters that might be needed.

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Introduction

This document describes the design and intended use of catch weight in the sales order management process for target industries. It also describes the parameters and processes that work out of box, and the parameters that might be needed.

Target industries – Inventory tracking and pricing

The information in this document is intended for small to large manufacturing and distribution companies within industries where items are ordered by a piece unit and invoiced by the weight/volume/area of the item. The “sweet spot” is represented by companies within the food industry that specialize in proteins.

The following are some key characteristics of these companies:

- They do not usually trade between legal entities.
- They purchase raw material for consumption in production.
- They do not usually resell unprocessed raw material to customers.
- They manufacture and sell finished goods.
- Their customers require fixed sales order lead time.
- Their customers usually operate a rudimentary store warehouse.

The major variations for catch weight items can be divided based on two basic decisions about inventory tracking and pricing:

- **Do you price the item by weight or by pieces?** This first decision will determine whether the item should be set up as a catch weight item. If you plan on pricing the items by piece rather than by weight, you should not configure the item as catch weight.
- **Do you track the weight of individual pieces or the aggregate weight of multiple pieces?** This second decision will determine whether you should use the full visibility or partial visibility approach in defining the catch weight item.

Catch weight items

Catch weight items are commonly used for food products involving protein or for agricultural produce. They are also used in other industries, such as metals, mining, and paper. A catch weight item is characterized by two units of measure – weight/volume/area and pieces – for the purpose of reporting inventory transactions and viewing inventory balances.

- Weight/volume/area represents the item’s inventory unit of measure, such as pounds or kilograms, although some industries might use volume or area instead (for example, square inches). This is the unit of measure at which the item is billed or invoiced.
- Pieces represent the item’s catch weight unit of measure, where you define the average weight per piece (also known as the nominal weight), and inventory transactions are ported in pieces and their actual weight. Examples of pieces include a 10-pound box, 100-pound package, 2,500-pound tote, 5-kilogram bag, 50-pound case, 200-kilogram crate, 275-gallon tote, 330-gallon tote, 8-GA 48×48 sheet, or some other unit of measure with zero decimal places (that is, 0 decimal precision). The catch weight unit is considered a “handling” unit of measure.

The multiple units of measure for a catch weight item should not be confused with a fixed unit of measure conversion factor (sometimes called a dual unit of measure), because each piece of a catch weight can have a different actual weight within the range defined for the item.

The allowable variation in the weight per catch weight piece should be defined in such a way that customers who receive a product with the total weight at either end of the range will not be disappointed or have their expectations unmet. For example, a turkey might vary from as few as 6 pounds to as much as 28 pounds. However, a customer who wanted three turkeys might not be happy to receive three turkeys at just 6 pounds each. Therefore, the turkeys might be defined as four different items: small turkeys weighing between 6 and 9 pounds, medium turkeys weighing between 9.1 and 13 pounds, medium-large turkeys weighing between 13.1 and 18 pounds, and large turkeys weighing between 18.1 and 28 pounds. Each of these items would be defined with an average or nominal weight.

As shown in the preceding example, transactions are driven by the catch weight quantity. Sales orders, purchase orders, transfer orders, and production orders specify how many pieces of the catch weight item are needed. However, the actual weight of each piece is recorded, and the pricing is done according to that actual weight, not the number of pieces.

A catch weight item is a stocked item that might be purchased or manufactured. Catch weight items do not require the batch number dimension, because batch numbers are optional, depending on the industry. The serial number dimension is required in some definitions of catch weight items. The catch weight item is defined in Microsoft Dynamics AX 2012 at the global enterprise level. An item cannot be a catch weight item in one company and a non-catch weight item in another company.

Inventory tracking

There are two basic inventory tracking approaches to tracking by weight:

- **The weight of each piece** – This approach provides partial visibility.
- **The weight of a group of pieces** – This approach provides full visibility.

In the partial visibility approach, a unique identifier is not assigned to each piece of a catch weight item, whereas each piece has a unique identifier in the full visibility approach. The partial visibility approach reflects the dominant business model in food products, whereas the full visibility approach applies to special cases such as meat processing or cheese production. Examples of the full visibility approach include the tracking of individual hams or turkeys, cheese wheels, or combo boxes. Because the full visibility approach requires that the pieces of the catch weight items be weighed for every inventory transaction, consideration should be given as to whether weight scale equipment exists throughout the facility.

If you have an item that is open (not contained) and suffers from evaporation (for example, 10 percent per day), this item probably would not be a good candidate for a catch weight item, because that extreme evaporation could continue to the point that the overall weight of the item falls below the minimum weight range established for that item. Because some evaporation might be a characteristic of a catch weight item, you can define how often the item is retested and an inventory adjustment is performed, so that the Microsoft Dynamics AX inventory balances can be synchronized with actual weights. In this scenario, it might be more advantageous to use a full visibility approach, so that each unit can be re-weighed periodically. Otherwise, if you use a partial visibility approach, you might find it too cumbersome to periodically re-weigh the entire inventory of the catch weight item. Typically, good candidates for catch weight methodology are items such as boxes of seafood, crates of vegetables, or cartons of potatoes. Many of these items might experience some evaporation, but that change of weight should be considered when the minimum and maximum weight tolerances for the catch weight item are established.

Partial visibility catch weight

In this approach, a unique identifier is not assigned to each piece of a catch weight item. The number of packages and their total weight must be reported upon receipt and for each subsequent inventory transaction, such as transfers, picking, and shipping. So, even if you are performing a partial picking for an order, the total weight for that number of packages has to be recorded. The inventory on-hand balances indicate the total number of pieces and the total weight of an item, as displayed in the On

hand inquiry. Batch tracking can apply to the item, so that on-hand inventory balances will display the relevant batch numbers.

Full visibility catch weight

You can use a full visibility catch weight item to track inventory transactions by registering the actual weight against each catch weight unit. This works when an individual unit must be tracked, such as a whole chicken in poultry processing or a bundle of an expensive cheese in cheese production.

This approach means that a unique identifier must be assigned to each piece of a catch weight item. The Microsoft Dynamics AX functionality for serial numbers is used to assign each piece of the item's inventory a unique serial number (serial number control) upon receipt (either from purchase or production), and you report the actual weight of each piece. This approach lets you record actual weight upon receipt, and the same weight can apply to subsequent inventory transactions that identify the serial number. The serial numbers are displayed as part of the On hand inquiry for inventory balances. Batch tracking can also apply in this approach, so that multiple pieces can have the same batch number.

This approach provides full visibility of a catch weight item's inventory. This can be useful when a customer wants a specific weight or weight range (for example, three large turkeys in the 24 to 25 pound range). With a full visibility approach, inventory of items that meet the customer's desires can be reserved specifically for the customer's order. By contrast, with a partial visibility approach, the customer's desires would become a suggestion to the warehouse picker to attempt to find inventory that meets those desires.

Using full visibility catch weight requires the following setup for the tracking dimension group: the serial number dimension is active, primary stocking is selected, physical inventory is tracked, and the **Serial number control** check box is selected.

Name	Active	Primary stocking	Blank receipt allowed	Blank issue allowed	Physical inventory	Financial inventory	Coverage plan by dimension	For purchase prices	For sales prices	Transfer
Inventory profile	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Batch number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serial number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GTD number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 1 - Tracking dimension groups form

If **Serial number control** is not selected, a serial number could be applied to more than one unit of inventory. This would mean that instead of configuring the tracking dimension to support full visibility, you are setting it up for a partial visibility catch weight item. The decision to include the batch number dimension depends on whether you need lot tracking, or whether you need to define expiration or sell-by dates for the item. In either of these cases, the batch number dimension would be required.

Pricing of catch weight items

Pricing considerations apply only to a catch weight item that is purchased or sold, because the item should be priced by weight, not by the box/package, regardless of the inventory tracking approach. The desired pricing approach for an item must be defined in the default unit of measure for sales and purchasing (because this unit of measure will be assigned when line items are created on sales orders and purchases) and in the price trade agreements.

- **Pricing based on weight** – This represents the traditional approach to catch weight items, where price trade agreements are defined in terms of weight, and invoicing reflects the actual weight. The setup information for pricing by weight can apply to purchase prices, sales prices, or both. With a purchased item, you should specify the weight unit of measure in the item's default purchase unit of measure and in the purchase price trade agreements. A similar approach applies to a salable item, where you specify the weight unit of measure in the item's default sales unit of measure and in the sales price trade agreements. The weight unit of measure might reflect the item's inventory unit of measure or another authorized unit of measure for the item.
- **Pricing based on box/package** – This approach is called e-weight. As a typical example, a box of the product is filled to a minimum weight or an even higher weight (known as giveaway), and the purchase price or sales price is expressed per box. This approach **does not** require designation of a catch weight item. Again, if you plan on pricing the items by piece rather than weight, you should not configure the item as catch weight.

Some situations are not candidates for using the catch weight functionality, even though they initially appear to fit the model because the product is stocked and transported in a box/package. One example involves a component item, where the required quantity must be expressed in weight rather than the number of boxes/packages. A second example involves pricing by piece (that is, e-weight), regardless of the actual weight per piece. A third example involves an item with a very limited range of allowable weight per box/package. Conversely, an item with an extremely large range of allowable weight might not be a candidate, especially if you are using a partial visibility approach and reservations (because reservation would reflect the minimum allowable quantity).

Although the weight for a catch weight item on an order defaults to the **nominal** weight, any reservation for a catch weight item is done at the **minimum** weight. By reserving at the minimum inventory weight – because every unit of the catch weight item could indeed be at the minimum weight – we ensure that the order can be fully reserved if the catch weight quantity can be satisfied. This is another reason that the minimum weight, in relation to the nominal weight, should be realistic. For example, because a turkey might vary from as few as 6 pounds to as much as 28 pounds, you might want to establish several stock keeping units (SKUs) to accommodate the various ranges of weights that a customer might expect to receive. Otherwise, a customer who wants three turkeys might not be happy to receive three turkeys at just 6 pounds each. In another example, you might not want to establish rolls of steel cable as a catch weight item if those rolls could vary from a full roll of 5,000 meters to as few as 10 meters. Otherwise, a customer who is expecting a full roll of steel cable will not be happy to receive a partial roll that only contains only a small quantity of cable.

A feature that was fundamental in the implementation of the full visibility approach is often referred to as the "last box" function. With full visibility catch weight items, the catch weight quantity is always 0 or 1 for that unique inventory dimension (item number and serial number combination). So, whenever the last unit in a dimension is reserved or picked from inventory – which occurs every time in the case of a full visibility item – the entire inventory quantity (weight) is associated with that transaction. This feature is also used when the last unit of a partial visibility catch weight item is reserved or picked from inventory, so that there is no residual inventory quantity when the catch weight quantity is 0 (zero). When full visibility catch weight items are reserved, the entire inventory (last box) quantity is reserved for that catch weight quantity. When the last unit of a partial visibility catch weight item is reserved, the remaining inventory quantity is reserved, so that there is no residual inventory quantity when the catch weight quantity is 0 (zero).

Create and release a product for a catch weight–controlled item

There are multiple ways to create released products for AX 6 R2. This process has not changed.

To create a catch weight item, you can use the following steps.

1. In the navigation pane, click **Product information management > Common > Released products**, and then click **Product**. If you create a released product, the product is created globally and immediately released to the company from which you selected to create it. The **CW product** check box must be selected in the **New product** or **New Released** product dialog boxes. Otherwise, the item has to be deleted from the company, and the global product has to be edited and released again. Products are also created globally, regardless of whether **CW product** is selected. However, after the product is released, **CW product** cannot be selected. The setting can be edited in the Product master form before the product is released or if the product no longer exists at a company level.

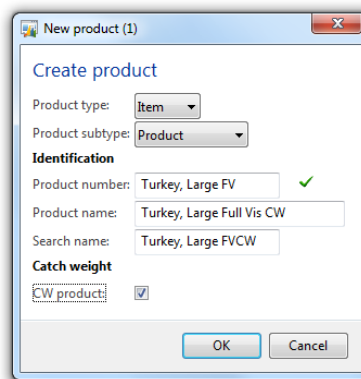


Figure 2 - New product dialog box

Figure 3 - New released product dialog box

- Define the conversion between the inventory unit of measure and the catch weight unit of measure for the released product. The **Unit conversions** form can be opened from the Action Pane for the released product: click **Product > Set up > Unit conversion**. For the inter-class conversion, the **From unit** value will be the catch weight unit. Make sure that the definition of that unit of measure is defined with 0 (zero) decimal precision in order to enable that selection in the next step.

Product	Factor	Numerator	Denominator	From unit	To unit	Rounding
Turkey, Large FV	22.0000000000	* (1	/ 1) *	ea = Lbs	To nearest

Figure 4 - Unit conversions form

- The catch weight unit must be applied to the released product. On the **Manage inventory** FastTab, the definition for a catch weight item is completed in the **Catch weight** field group. The **Catch weight item** check box is not editable. In the **CW unit** field, you select the catch weight unit that you are assigning to this item. The **Nominal quantity** field will default from the inter-class conversion defined in the previous step. Next, in the **Minimum quantity** and **Maximum quantity** fields, you establish the range for the variation in weight of the catch weight item. All entries that you make in the inventory quantity fields in the related forms must be within this range definition.

The screenshot shows the 'Released product details' form for 'Turkey, Large FV'. The 'Manage inventory' section is expanded, and the 'Catch weight' field group is visible. The 'Catch weight item' checkbox is checked, and the 'CW unit' is set to 'ea'. The 'Nominal quantity' is 22.0000000000, 'Minimum quantity' is 18.10, and 'Maximum quantity' is 28.00. Other sections include Weight measurements, Physical dimensions, Tracking, RFID tagging, Transfer orders, Inventory, Shipping and receiving, Handling, Potency, Packaging, and Item data.

Figure 5 - Released products details form

- A batch number group and serial number group can be applied to the released product. You can set these number groups on the **Manage inventory** FastTab. These number groups control how the batch number or serial number will be created and the format. For these number groups, catch weight items do not support a **Per qty.** value. When a selection is made, validation is performed to ensure that the selected number group does not have a **Per qty.** value defined.

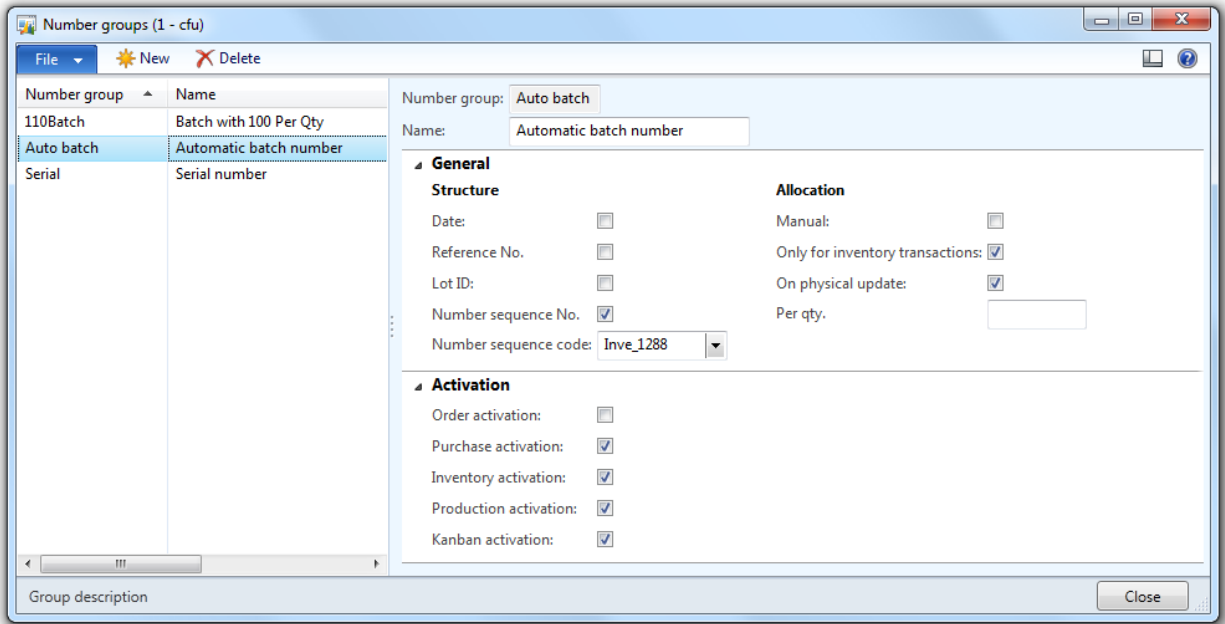


Figure 6 - Number groups form

- Complete the remaining setup of the released product.

Enhancements in AX 6.2

- It is now possible to define a catch weight **product master** that has predefined variants.
- EcoResProductService and ItemService now support catch weight.
- Shared product templates can now be used with catch weight.
- Previously, new products defaulted to a production type of **None**. The production type now defaults to **BOM** for new released products and to **Formula** for new released catch weight products.

Proceed with caution in the following situations

- Catch weight is implemented in companies outside the target industries. There might be variations in processes that are not supported with the current catch weight implementation.
- You need to perform lot tracking or define the catch weight with limited shelf life. In this case, we recommend that you use the batch number tracking dimension. The serial number tracking dimension is required for the full visibility approach for catch weight.

As with other items, it is recommended that all active tracking dimensions be selected for primary stocking and physical inventory.

- The storage dimensions of the location and pallet are active, or the consolidated picking method is used. When the combination of these dimensions is used with advanced picking, methods should be properly configured and tested to ensure that expectations are met.
- The unit conversion between the inventory unit of measure and the catch weight unit of measure is controlled per product variant. This setup is not supported, because unit conversion is supported for product masters only. Although product variants have been extended to catch weight items, this configuration for catch weight items is very rare in practice.
- The concept of the product master is used. Configuration technology for dimension-based configuration, rule-based configuration, and constraint-based configuration is not supported in combination with catch weight.
- Catch weight quantities could become negative. Catch weight quantities should not be allowed to become negative. Physical inventory of a catch weight item should also not become negative. There is logic in place to allocate the entire physical inventory when the last piece of a catch weight item is removed from inventory. Because catch weight item inventory is designed to track the “actual” weight of a piece of inventory, the physical inventory will either exist or not. You cannot pick inventory of a catch weight item if it doesn’t exist in inventory.

The current design of catch weight functionality does not support the preceding situations. Handling these situations might require customization. We recommend that you proceed with caution and perform thorough testing before you go live.

Detailed process implementation

Outbound process flow for Catch weight items

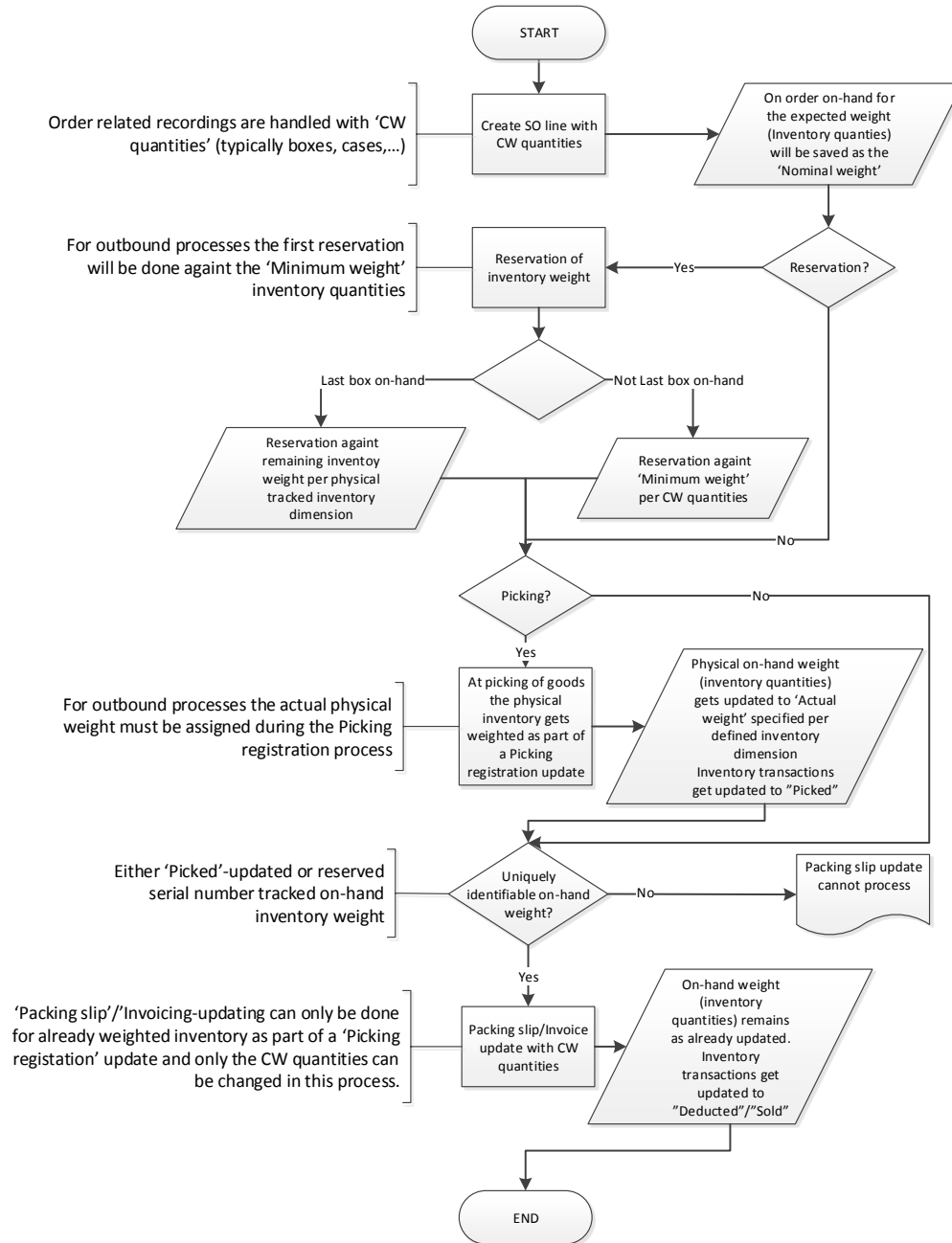


Figure 7 - Outbound process flow for catch weight items

Receiving, entering, and validating an order

The process of entering a sales order for a catch weight-controlled item is almost the same as the process for a non-catch weight-controlled item. The only difference is that the **CW quantity** field becomes available, and the **Quantity** field becomes unavailable. Microsoft Dynamics AX multiplies the nominal quantity by the **CW quantity** value and updates the **Quantity** field with the result. In the following example, the catch weight item has a nominal weight of 22 pounds. The **CW quantity** value, of **3**, is multiplied by the nominal weight for a **Quantity** value of **66.00** pounds.

The screenshot shows the Microsoft Dynamics AX Sales order form for a catch weight item. The window title is "Sales order (1 - cfu) - Sales order: CFU-000033, Accessories Network". The ribbon includes "Sales order", "Sell", "Manage", "Pick and pack", "Invoice", "Retail", and "General". The "Sales order" ribbon has buttons for "Service order", "Purchase order", "Direct delivery", "Edit", "Delete", "Header view", "Line view", "From all", "From journal", "Totals", "Download online orders", "Generate from template", "Attachments", "Send payment failure email", and "Email notification log".

The main area displays the "Sales order header" and "Sales order lines". The "Sales order lines" table is as follows:

Va...	Ty...	Item number	Product name	Sal...	CW quantity	CW unit	Quantity	Unit	CW deliver now	C...	S...	C...	Site	Wa
		Turkey, Large FV	Turkey, Large Full Vis CW		3	ea	66.00	Lbs					1	10

The "Line details" section includes fields for "Product dimensions", "Storage dimensions", "Item reference", "Tracking dimensions", and "Product model number". The "Storage dimensions" section shows "Site" set to 1 and "Warehouse" set to 10. The "Item reference" section shows "Reference type", "Reference number", and "Reference lot". The "Tracking dimensions" section shows "Batch number" and "Serial number". The "Product model number" section shows "Product model number".

The bottom of the form has tabs for "General", "Setup", "Address", "Product", "Packing", "Delivery", "Price and discount", "Project", "Foreign trade", and "Financial dimensions". The status bar shows "Descriptive name of configuration", "26811", "GBP", "cfu", and "Close".

Figure 8 - Sales order form

Users can enter the sales order manually, or they take full advantage of the supporting features to copy and add lines to sales orders.

Catch weight works seamlessly with trade agreements. Pricing is controlled by sales quantity, so the standard features for default price agreement, credit limit check, sales tax calculations, and costing are used.

Enhancements in AX 6.2

- In addition to checking the **Deliver now** quantity in the sales unit and the inventory unit, you can also check it in the catch weight unit in the **Line quantity** form.

Line quantity (1 - ceu) - Sales order: 50-101265, Forest Wholesales

File Sales order line Inventory Product and supply Update line

Line quantity in sales unit

Item number	Product name	Sales category	Quantity	Deliver now	Invoiced	Invoice remainder	Delivered	Deliver remainder	F
1	Turkey, fresh organic		100.00					100.00	

CW quantity

Item number	Product name	Sales category	CW invoiced	CW invoice remainder	CW delivered	CW deliver remainder	CW picked
1	Turkey, fresh organic					10	

Line quantity in inventory unit

Quantity: 100.00 | Deliver remainder: 100.00 | Deliver now: | Invoice remainder: |

Deliver now

CW deliver now: |

Catch weight quantity delivered now in catch weight units. Close

Figure 9 - Line quantity form

Proceed with caution in the following situations

- Intercompany trade:
 - Although the batch number tracking dimension is not required for catch weight items, there can be issues if batch numbers are used for both catch weight and non-catch weight items, and you attempt to synchronize batch numbers across multiple companies.
 - Although catch weight items are defined globally, the units of measure for those catch weight items are defined at the company level. Even when the units of measure are the same, there is no verification that the minimum, maximum and nominal quantities for a single catch weight item are the same between companies, or that they are compatible.
 - The **Create intercompany purchase agreement** function is not compatible with catch weight, and erroneous purchase agreement lines could be created if this function is used.

The current design of catch weight functionality does not support the preceding situations. Handling these situations might require customization. We recommend that you proceed with caution and perform thorough testing before you go live.

Order promising and determining the delivery date

The sales order confirmation contains catch weight-specific information.

Contoso Entertainment Systems (West)
123 Coffee Street
Suite 300
Redmond, WA 98052
USA

Ship to:
Forest Wholesales
456 Black Road
Bothell, WA 98021
US

Telephone 425-555-0156
Fax
Giro
Tax registration number

Confirmation

Page 1 of 1
Number SO-101265-1
Date 12/18/2012
Sales order [SO-101265](#)
Requisition
Your ref.
Our ref. Julia Funderburk
Payment Net 60 days

Item number	Description	Ship date	Quantity	Unit	Sales price	Discount	Discount percent	Amount	Print code
1	Turkey, fresh organic Quantity : 100.00 Warehouse : 11 Catch weight:	12/27/2012	100.00	Kg	20.00	0.00	0.00 %	2,000.00	
				10 ea					

This text is from the Sales Order Confirmation form notes

Currency	Sales subtotal amount	Total discount	Charges	Net amount	Sales tax	Round-off	Total
USD	2,000.00	0.00	0.00	2,000.00	0.00	0.00	2,000.00

When payment before 12/28/2012, 10.00 USD is granted in cash discount.

Figure 10 - Sales order confirmation

The actual catch weight information is saved in the **Sales order confirmation** journal to ensure that an exact copy of the sales order confirmation can be reprinted.

Enhancements in AX 6.2

- The **Sales order confirmation** report contains catch weight information.
- Miscellaneous update issues in the sales order form are resolved.

Proceed with caution in the following situations

- Available to promise (ATP) and capable to promise (CTP) are used. ATP currently shows only the inventory quantities, not the catch weight quantities, so there additional customizations might be

needed in this area. CTP is primarily for kanban items. Lean manufacturing is not integrated with Process manufacturing because of different methodologies.

- Marking is required. Marking is designed to work with the inventory quantity. Because the inventory quantity for catch weight items is variable throughout the fulfillment process, marking is disabled for catch weight items. Because direct delivery uses marking, there might be issues if you use catch weight items in direct delivery situations. However, in practice, direct delivery of catch weight items is rare, because the weight of the unit needs to be known before the processing of the order is completed. In a sense, such a situation would be similar to the direct delivery of a tanker delivery of a raw material directly from the manufacturer to the end customer. The actual weight of the delivery is not known until after the delivery has been completed.

The current design of catch weight functionality does not support the preceding situations. Handling these situations might require customizations. We recommend that you proceed with caution and perform thorough testing before you go live.

Reserving inventory

Inventory can be reserved directly from the sales order line by using standard Microsoft Dynamics AX reservation methods.

1. Inventory quantities in the **Reservation** form are shown in the catch weight unit of measure.
2. For full visibility catch weight items, each serialized unit is shown. When the items are reserved, the associated LOT inventory quantity is also reserved.

Figure 11 - Reservation form

- For partial visibility catch weight items, the aggregate catch weight quantity is shown. When the items are reserved, the inventory quantity is reserved at the **minimum quantity**. Because inventory for catch weight items is allowed to be under the nominal weight and as low as the minimum weight, reserving at the minimum quantity ensures that there is sufficient inventory quantity to complete the reservation. If the last catch weight unit is reserved, the entire on-hand inventory quantity is reserved, even when that quantity is above the minimum. This ensures that there is no inventory quantity left when there is no catch weight quantity left.

Quantity	CW quantity	Configuration	Size	Color	Style	Site	Warehouse	Batch number	Location	Pallet ID	Serial number
38.30	2										

Reference	Number	Packing slip	Invoice	Receipt status	Status date	CW quantity	Quantity	Cost price
Inventory adjustment	CFU-000116			Purchased	5/3/2013	5	114.50	1.70

Figure 12 - Reservation form

Enhancements in AX 6.2

- Enhancements were made to the options for users to enter feedback when they reserve batches that are expired or blocked.

Proceed with caution in the following situations

- None

Release for picking

Inventory for a sales order can be picked in a couple of different ways. One is to pick directly from the sales order. Another is to generate a pick list, which also creates an output order, and then register that pick list to verify what was picked.

- To pick directly from the sales order, click **Update line > Process > Pick**.
- To pick from the pick list, on the **Pick and pack**, click **Picking list**.

The detailed procedure varies, depending on whether the sales order line has been reserved. It also depends on whether the catch weight item is configured with a full visibility or a partial visibility approach. The following chart provides the detail process flow and shows how each path is executed differently.

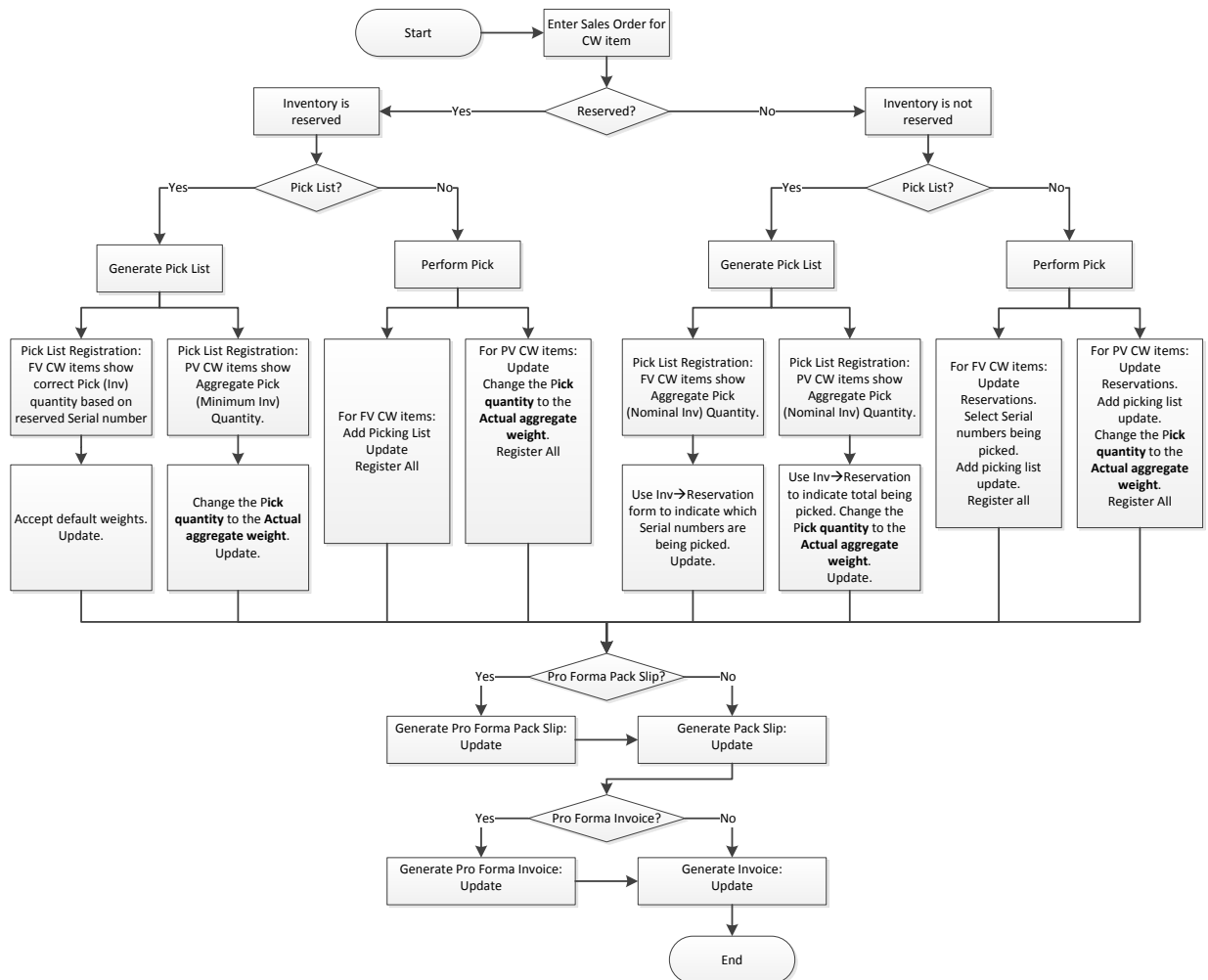


Figure 13 - Process flow for release for picking

Enhancements in AX 6.2

- Minor code issues were fixed.

Proceed with caution in the following situation

- The **Process Pick** function is used instead of the traditional pick list and pick list registration. This situation might cause errors when the function is processed improperly.

Handling the preceding situation might require customization. We recommend that you proceed with caution and perform thorough testing before you go live.

Picking registration

Picking registration is performed from the **Picking list registration** form.

The screenshot shows the 'Picking list registration' form with the following sections:

- Criteria:** Includes checkboxes for 'Order picking' (checked), 'Consolidated picking', and a 'Picking route' dropdown menu.
- General:** Contains a table with columns: Picking route, Shipment, Handling status, Activation date, Reference, Number, and Optimized picking. The first row shows: 008460_116, 008416_113, Activated, 1/7/2013 12:51:04 pm, Sales order, SO-101265.
- Lines:** Contains a table with columns: Select, Lot ID, Item number, Handling status, Requested ship date, Pick quantity, CW pick quantity, and Reserved. The first row shows: [checkbox], 00161632_068, 1, Activated, 12/27/2012, 100.00, 10.
- Order picking overview:** Contains a table with columns: Item number, Inventory order, Reference, Number, Customer, Requested quantity, Requested CW quantity, Inventory order quantity, CW quantity, Quantity not in shipment, and CW quantity. The first row shows: 1, 00010512_112, Sales order, SO-101265, 1101, 100.00, 10, 100.00, 10.

Figure 14 - Picking list registration form

The warehouse worker registers the catch weight quantity that is picked and the corresponding weight.

If the sales order has been through reservation:

- Full visibility catch weight items will show the correct **Pick quantity** value, based on the reserved serial numbers.
- Partial visibility catch weight items will show the **Pick quantity** value as the aggregate minimum inventory value for the catch weight units being reserved. The actual aggregate weight of the catch weight quantity that is picked is entered in the **Pick quantity** field. Built-in validation

ensures that the user does not enter a weight that is outside the range of minimum and maximum quantities that is defined on the released catch weight product. The following error message is displayed if this occurs.

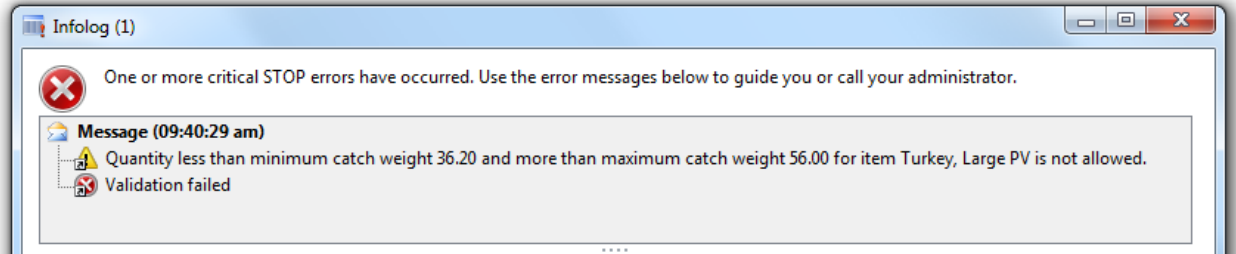


Figure 15 - Infolog message for a weight that is outside tolerance

If the sales order has **not** been through reservation:

- Full visibility catch weight items will show the **Pick quantity** value as the aggregate nominal inventory value for the catch weight units being ordered.

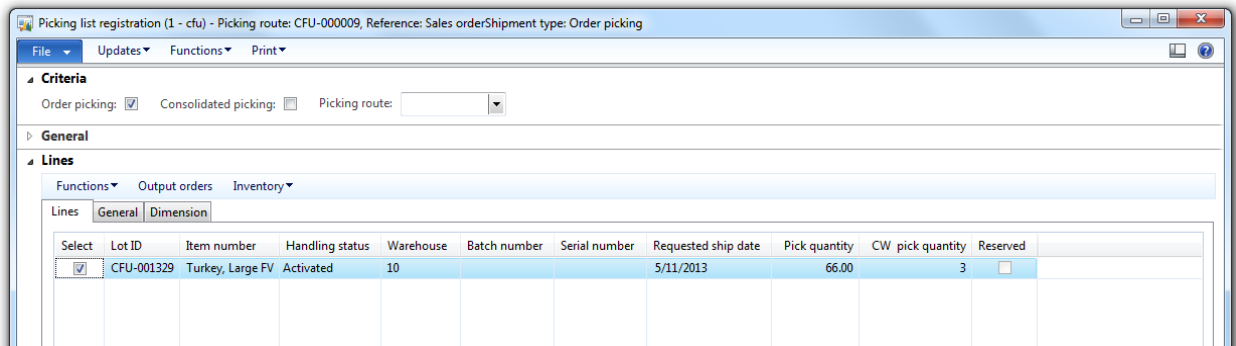


Figure 16 - Picking list registration form

The user would select **Inventory > Reservation**, select each of the serial numbers being picked, and then select **Reserve Line**. By using the reservation process, the worker can select the serial numbers being picked, and the weight will automatically default in the registration form. Otherwise, the registration line will need to be manually split, serial numbers selected/entered, and the individual weights entered.

number	Serial number	Batch di...	Batch disp...	Best before ...	Expiratio...	CW physical inventory	C...	CW available physical	CW...	CW r...	CW available for reservation	CW reservation
1	LOT-000235	SER-000046	Avail	Available	4/8/2014	5/8/2014	1	1				1
1	LOT-000235	SER-000047	Avail	Available	4/8/2014	5/8/2014	1	1				1
1	LOT-000235	SER-000048	Avail	Available	4/8/2014	5/8/2014	1	1				1
1	LOT-000235	SER-000049	Avail	Available	4/8/2014	5/8/2014	1		1		1	
1	LOT-000235	SER-000050	Avail	Available	4/8/2014	5/8/2014	1		1		1	

Figure 17 - Reservation form

When the **Reservation** form is closed, the **Picking list registration** form will be updated, and the full visibility catch weight item will be split into individual lines (when the catch weight quantity is greater than 1), showing both the serial number in the **Serial number** field and the actual weight in the **Pick quantity** field for that catch weight unit.

Select	Lot ID	Item number	Handling status	Warehouse	Batch number	Serial number	Requested ship date	Pick quantity	CW pick quantity	Reserved
<input checked="" type="checkbox"/>	CFU-001329	Turkey, Large FV	Activated	10	LOT-000235	SER-000046	5/11/2013	19.70	1	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	CFU-001329	Turkey, Large FV	Activated	10	LOT-000235	SER-000047	5/11/2013	21.30	1	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	CFU-001329	Turkey, Large FV	Activated	10	LOT-000235	SER-000048	5/11/2013	23.10	1	<input checked="" type="checkbox"/>

Figure 18 - Picking list registration form

- Partial visibility catch weight items will show the **Pick quantity** value as the aggregate **nominal** inventory value (for example, $22 \times 2 = 44.00$) for the catch weight units being reserved.

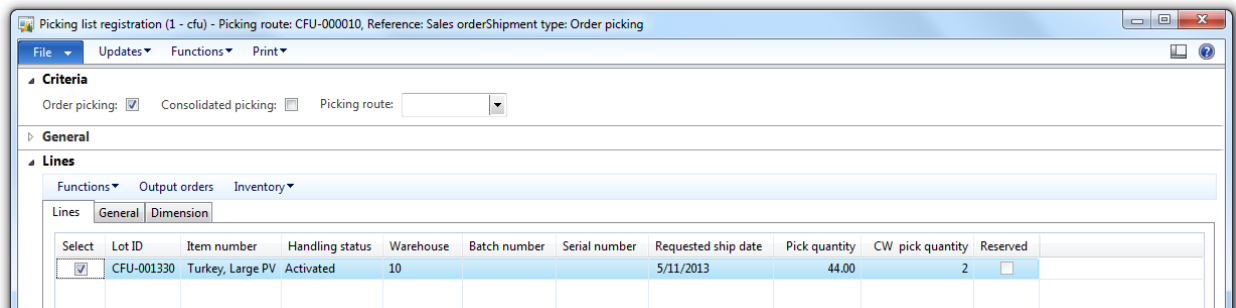


Figure 19 - Picking list registration form

The user would select **Inventory > Reservation**, select the particular line (or, if the item is batch-controlled, the selected batch number), and then select **Reserve Line**. The user can also choose to simply change the pick quantity to the aggregate weight on the registration form, without utilizing the reservation process. However, when the catch weight item is batch-controlled, it is often easier to select the batch from that form, because it also shows the availability of those batches based on expiration dates and batch disposition codes.

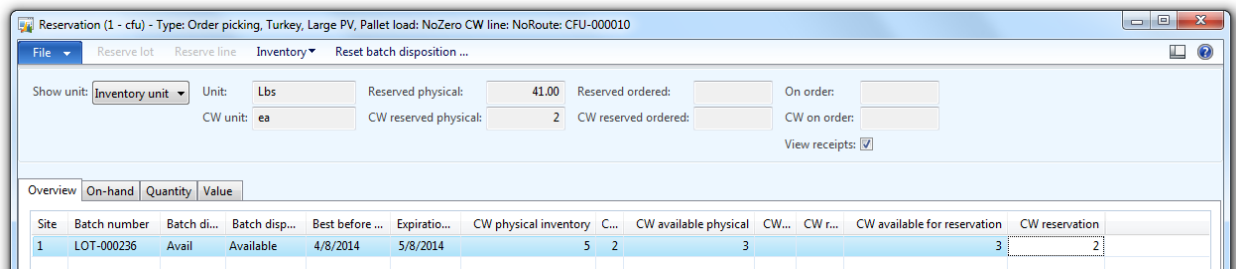


Figure 20 - Reservation form

When the **Reservation** form is closed, the **Picking list registration** form will be updated, and the partial visibility catch weight item will now show the aggregate **minimal** inventory value (for example, $18.1 \times 2 = 36.20$) in the **Pick quantity** field. The user will change this **Pick quantity** value to the **actual** aggregate weight (for example $19.7 + 21.3 = 41.00$) of the catch weight units that were picked.

Figure 21 - Picking list registration form

The procedure for registering the pick is the same as that for any other product, except the user enters the catch weight quantity that is picked and the weight of the quantity that is picked.

Enhancements in AX 6.2

- Minor code issues were fixed.

Proceed with caution in the following situations

- The consolidated picking function of advanced warehouse management is used. Outbound operations that use shipment reservation, picking list registration, and refill of picking locations are not generated automatically.
- An order line is reserved, and it is normal procedure for a warehouse worker to pick a batch number, a serial number, or quantities that differ from what is reserved. This can lead to a situation where the warehouse worker must cancel the picking line and reorder picking in order to register the batch number or serial number that is picked.

Note: The overdelivery/underdelivery percentage is based on the catch weight quantity, the inventory quantity, for catch weight products. Care should be taken when establishing the minimum/maximum quantities for any catch weight item, and also when defining over/under-tolerances for order quantities.

Careful consideration must be given when you use these business processes for catch weight items. Catch weight processing requires specific procedures to be performed because of their complex nature. Some customization might be required to model these specific processes to meet customer requirements. We recommend that you proceed with caution and perform thorough testing before you go live.

Packing slip and invoice update

The procedure for creating and updating **packing slip** journals and **invoice** journals follows the standard procedure.

A customer is billed according to the quantity delivered in the sales unit of measure, not the quantity delivered in the catch weigh unit of measure. During posting of the invoice, the quantity delivered in the inventory unit of measure is converted to the **Update** quantity in the sales order unit of measure,

and the catch pack weight quantity is converted to the **CW update** quantity in the catch weight unit of measure.

Sales category	Text	Sales order	Configuration	Size	Color	Site	Warehouse	Batch number	Serial number	CW update	Item number	Update	Net amount	Close	
Products	Turkey, Large Full Vis CW	CFU-000053				1	10				3	Turkey, Large FV	64.10	0.00	
Products	Turkey, Large Partial Vis CW	CFU-000053				1	10				2	Turkey, Large PV	41.00	0.00	

Figure 22 - Packing slip posting form

Both the packing slip and the invoice contain catch weight-specific information. The actual catch weight information is saved in the **packing slip** and **invoice** journals to ensure that an exact copy of the documents can be reprinted.

Enhancements in AX 6.2

- For partial visibility catch weight items, the picking process must be completed before the packing slip or invoice can be updated, as part of the business process design.
- For full visibility catch weight items, the picking process can be omitted if the serial number is provided on the sales order line, or if the sales order line is reserved. When the serial number is either provided or reserved for the sales order line, the actual weight of the catch weight unit is also known. However, it is good business practice to verify what is actually picked through the recommended procedures instead of skipping critical processes that help ensure accurate inventory balances.

Proceed with caution in the following situations

- Multiple packing slips are updated from the same sales order line, and invoicing per packing slip is needed. (This is not unique to just catch weight items but applies to all items.)
- The billing unit of measure (sales order unit of measure) is the same as the catch weight unit of measure. The quantity that is delivered in the inventory unit of measure is recalculated to the billing unit of measure. If the billing unit of measure is the same as the catch weight unit of measure, the product should not have been defined as a catch weight item. The catch weight functionality is intended for conditions where these units of measure are required to be different.
- The sales unit of measure can be changed independently of the inventory unit of measure. This might cause some serious issues for catch weight items and might result in miscalculations.

Careful consideration must be given when you use these business processes for catch weight items. Catch weight processing requires specific procedures to be performed because of their complex nature. Some customization might be required to model these specific processes to meet customer requirements. We recommend that you proceed with caution and perform thorough testing before you go live.

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