

MANAGING PERISHABLE ITEMS



SHELF LIFE

EXPIRATION DATES AND PLANNING
CALCULATIONS

BATCH ATTRIBUTES

PERISHABLE WAREHOUSE/
TRANSPORTATION MANAGEMENT





MANAGING PERISHABLE ITEMS

The nature of the food business requires lot tracking and the associated information about the expiration date, or best before date, for each lot. These dates become critical in meeting customer requirements for remaining shelf life after sales order delivery, and in the planning calculations for using existing inventory to satisfy future demands. Some products have an extremely short shelf life

- which requires close coordination of transportation and warehouse activities for speedy delivery to the customer.

The following four case studies on shelf life, expiration dates and planning calculations, batch attributes, and warehousing and transporting perishables, illustrate key issues and challenges and how they can be addressed.

CASE 1:

Shelf Life



Issue



A produce distributor offered customer guarantees on remaining shelf life. However, the manual coordination for picking and shipping perishable stock caused too many write-offs and resulted in mistakes that strained relationships with its customers.

Problem



The manual coordination of perishable stock provided limited visibility about what should be picked and distributed to satisfy the customer requirements for remaining shelf life. This resulted in shipments that did not meet the customer requirements, and write-offs for stock that had reached its expiration date. This reduced customer satisfaction and profit margins in a competitive marketplace and made the guarantee a financial liability for the distributor.

Remedy



Using the shelf life functionality of Microsoft Dynamics, the business is now able to maintain the best before (expiry) dates for different lots of produce inventory and define the customer requirements for remaining shelf life. Using this information, the solution provides picking lists that suggest the specific lots to meet customer requirements while also considering First-Expired-First-Out (FEFO) logic to help ensure products will be used prior to expiration. In addition, each inventory lot is assigned a separate shelf advice date in order to support warnings about products nearing the end of their shelf life.

Benefits



The shelf life functionality enables the business to automatically support their customer guarantees about remaining shelf life, thereby reducing mistakes and improving customer satisfaction. It also helps reduce inventory write-offs for expired products.

CASE 2:

Expiration Dates and Planning Calculations



Issue



A distributor delivers a variety of fresh produce to food manufacturers throughout the country. The expiration dates of fresh vegetable ingredients were not considered by the planning calculations within the existing ERP system, and manual coordination efforts frequently resulted in write-offs of expired inventory, and thereby reduced margins.

Problem



A major manufacturing client of the distributor used their fresh vegetables as ingredients in their soup products. The lot numbers of purchased ingredients were identified with a best before date and an expiration date at the time of receipt. However, the planning calculations did not consider these expiration dates.

Remedy



As the planning calculations built into Microsoft Dynamics use the best before date or expiration Date they are now able to determine whether an ingredient's lot can be used in production.

Benefits



The planning calculations in combination with the FEFO logic for using ingredients in production have enabled the business to optimise usage of fresh ingredients and reduce inventory write-offs for expired material.

CASE 3:

Batch Attributes



Issue



A dairy products company produced a blended cheese from several types of purchased cheeses. The business needed to record these attributes to assess the tolerance levels of the data to identify and monitor out-of-tolerance batches.

Problem



Their ERP solution had no ability to hold any information other than the batch numbers for traceability. The business recorded all of the additional batch information off-system using Microsoft Excel. This was located centrally but was not being integrated so the reference was always manual. Periodically cheeses were blended with out-of-tolerance batches in error because the system had no ability to highlight them.

Remedy



With Microsoft Dynamics, the batch record is now configured with attributes to capture the sales content, moisture and milk solids. Each attribute is then identified as an integer with a target value and acceptable minimum and maximum tolerance values. The actual values for

the attributes are then assigned to the batch numbers for the blended cheese after production processing and reporting of quality order information from the laboratory. In addition, the attributes are also assigned to the batch numbers for the incoming raw material based upon information provided by the vendor.

A report provides a comparison between the actual and target values for each batch number, and a batch disposition code is assigned to any out-of-tolerance batches to restrict its usage.

Benefits



All information related to the purchased and produced batches are brought into a central repository allowing all users to view and interrogate the information. The information is also being recorded at the point of stock receipt. With the system controlling the tolerance monitoring and the disposition codes being flagged against out-of-tolerance batches, picking and blending of incorrect cheeses is now vastly reduced, eliminating costly write-offs. The business additionally has full supply chain visibility and tracking of products from supplier through to end consumer with all associated attributes known.

CASE 4:

Perishable Warehouse/ Transportation Management



Issue



A food distributor handled fresh berries from farms to grocery stores, and required detailed coordination for transporting and warehousing the perishable fruit within a small window of time. In some cases, current inventory should only be sold for today's sales orders. Sales orders for future shipment dates should be fulfilled by scheduled supply orders, or planned orders, rather than current inventory. This represents an exception to normal netting logic.

Problem



The logistics manager needed to minimise handling time and costs associated with transporting and warehousing the fresh berries. Immediately after harvesting, the berries must be rushed to a cooling house to begin a cooling process, after which they are moved to holding rooms. The cooled fruit is transported via refrigerated truck to distribution warehouses and then to food stores. All inbound and outbound transports at the distribution warehouses required minute-by-minute coordination,

and cross-docking was critical so that received goods could be sent immediately to the right truck. Additional considerations involved unpacking a bulk shipment into smaller increments, consolidating multiple shipments into a bulk shipment, repacking, some product assembly and labeling.

Remedy



The warehouse management/distribution capabilities in Microsoft Dynamics provides minute-by-minute coordination of the fresh berries from the farm to the grocery store, and also supports the requirements for cross-docking and additional considerations.

Benefits



The warehouse management/distribution capabilities minimise handling time and costs and ensure that produce is moved effectively within the small window.



ColumbusFood

The issues and challenges presented here and many more are addressed by *ColumbusFood*. *ColumbusFood* is an integrated business solutions tailored for food sectors such as prepared foods, produce, meat, dairy and bakery. It includes a combination of our award winning food and beverage software, our industry templates and implementation methodology all built onto the flexible and reliable Microsoft Dynamics platform.

ColumbusFood starts in the supply chain, through warehousing, inventory, production planning, manufacturing, sales, service, equipment maintenance and delivery routing. It is widely known as delivering operational efficiency in the supply chain, improved business intelligence and risk reduction through improved food safety and compliance.

ColumbusFood allows you to utilise the solutions and functionality you need.



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- > *Microsoft Dynamics AX or Dynamics NAV*
 - > *Columbus F&B (Food and Beverage)*
 - > *Columbus SCS (Supply Chain Solution)*
 - > *Columbus BIS (Business Integration Software)*
 - > *Columbus Business Intelligence Software*
 - > *Columbus RapidValue*
 - > *Columbus SureStep+*
 - > *Microsoft Dynamics CRM*



Introducing Columbus *RapidValue*

RapidValue has been designed and developed by Columbus to help organisations implement best practice business processes alongside their ERP implementation.

RapidValue is a Business Process Modeling solution that is fully integrated into Microsoft Dynamics AX, the foundational platform of Columbus*Food*

- > *Streamline business processes for efficiency and speed*
- > *Adopt best practices when appropriate to the business*
- > *Standardise business processes across the organisation*

RapidValue enables customers to translate business process models into solutions while working directly in Microsoft Dynamics AX. *RapidValue* is designed to meet 80% of your industry requirements out of the box.

- > *Business processes*
- > *User procedures*
- > *Application functionality*
- > *User roles and profiles*
- > *System set-up and base data*

Columbus *RapidValue*[®]

Once you *know* how...

The ColumbusFood Real World Scenario Series



Volume 1
Cases 1 - 4



Volume 2
Cases 5 - 7



Volume 3
Cases 8 - 10



Volume 4
Cases 11 - 13



For more information on Columbus, our client's experiences and our solutions, please visit www.columbusglobal.com

ABOUT COLUMBUS:

Columbus currently employs over 1,000 dedicated professionals working out of 41 offices in 21 countries. With more than 20 years experience and 6,000 successful implementations, Microsoft recognises Columbus as a top global partner and has presented the company with virtually every award and certification available.

