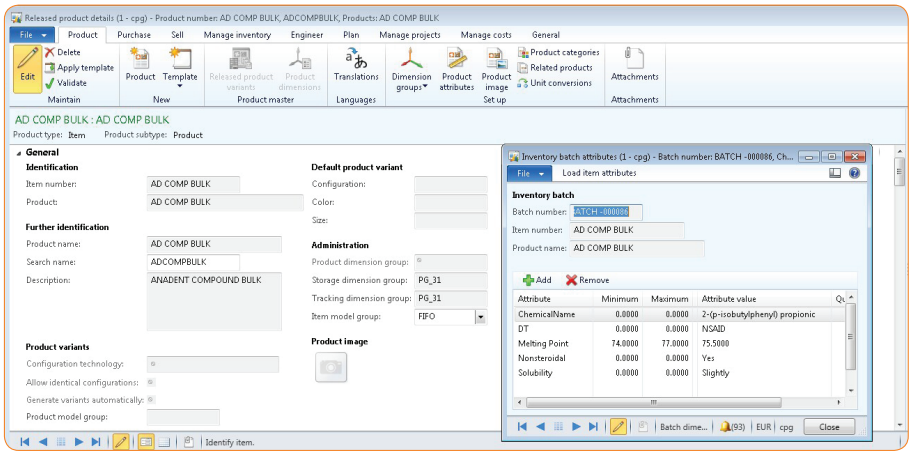
Benefits

- Expedite new product introductions. Integrated workflows increase efficiency and eliminate waste so you can introduce new products in a timely, least-cost manner.
- Help meet Good Manufacturing Practices (GMP) requirements. Manage electronic quarantines, quarantine release by user and material type, printed material control/obsolete components, lot control/segregation, lot tracking, and enable drug and hazardous material reconciliation.
- Improve production planning. Model the processing of costly ingredients to help minimize overruns and under-runs and use shelf life planning to consider expiration dates during production and distribution.
- Manage inventory with precision. Centrally manage co-products and by-products in your formulas or recipes, and always know the correct inventory status for any given item.
- Maximize your IT investments. Tight integration with other Microsoft products extends Microsoft Dynamics AX 2012 capabilities to help ensure a fast return on investment.

Microsoft Dynamics AX 2012 for Pharmaceutical & Life Sciences

Microsoft Dynamics AX 2012 can help pharmaceutical and life sciences companies manage the variables that threaten growth, including shelf life constraints, cost pressures, competition from generic and over-the-counter drugs, and strict regulatory requirements for manufacturing and product approvals.

Gain visibility across all areas of your organization from finance to manufacturing with integrated information and workflows that help speed the movement of goods, eliminate waste due to costly shelf life expirations and returns, and improve production. Microsoft Dynamics AX 2012 delivers the information you need to maximize capacity, help comply with regulatory demands, and drive continuous process improvement.



Classify, manage, and access information about materials with multiple characteristics from a single, intuitive interface.

Microsoft Dynamics AX 2012 can help you document standard processes and track and log operations and results to meet your reporting requirements. And, with the superior tracking capabilities of this solution, your company can implement effective recall procedures with complete forward and backward traceability when necessary.

If you have deeper pharma/life sciences industry requirements, Fullscope can help you address things like managing the purchase price for assay items based on the level of active ingredient; managing the inventory levels of assay items; batch order balancing or dispensing recommendations; shelf life and lot characteristics inheritance; scheduling based on desired product sequencing on critical resources so as to minimize changeovers, and more.

FEATURES

Approved Vendor Capability	Manage the vendor approval process per item with effective and expiration dates per item to ensure proper screening and compliance, along with establishing multi-level pricing for approved vendors.
Attribute Tracking and Dynamic Formula Adjustment	Define and maintain an unlimited number of qualitative and quantitative attributes at the product and lot levels. Adjust formulas based on predefined ratios and scaling to ensure consistent quality of final products.
Batch Balancing*	Allow production formulas to generate adjusted pick lists with quantities based on available lots of active (potency) ingredients, which may adjust other ingredient quantities automatically to insure the correct concentration of active ingredients and offsetting materials.
Batch Disposition	Restrict certain processes from using certain lots of inventory while being able to allow other processes from using or having visibility to the same. For example when inventory is newly received into the warehouse, it may have to be put on a temporary hold from shipping but should be available or visible for planning as being on hand or for customer reservations.
Best-before Dating	Know the correct inventory status for any given item and ship the right lot combinations to the specific ship-to location. Calculate lead times and look at available shelf life on a lot-by-lot level, enabling customer service to ship lots that arrive with the correct shelf life remaining. Proactively manage safety stocks based on seasonality and pull shelf life–challenged products for an overall reduction in charge backs and customer service issues.
Bulk and Pack Planning	Produce against given batch sizes, so every batch can be fully consumed (immediately packed to finished goods level). Maintain products that are most likely to be needed in stock. Batch balancing also ensures the coherence and traceability of multilevel production.
Centralized Quality Control and Regulatory Support	Use integrated quality control and lot traceability to link raw materials through each operation of the production process to final delivery at the customer site. Support U.S. Federal Drug Administration (FDA) reporting, plus GMP and FDA regulation 21 CFR Part 11.
Co-Product/By-Product Management	Support co- and by-product planning and tracking to help improve decisions, including analyzing the attributes and costs of co-products and burden from by-products, and crediting those values to the appropriate finished goods.
Custom Item and Dimensionality Structure	Define multiple inventory dimensions and gain insight into the dynamics of your stocking practices, including packaging codes, variations to the main item, lot management, and inventory status. Conduct comprehensive "where-used" analysis, including alternate formula and recipe tracking.
Customized Formula Product and Packaging Capabilities	Provide your customers with increased packaging flexibility by defining effective units of measurement. Enable customers to request multiple quality specifications per product while maintaining inventory visibility. Support highly flexible configurations and packaging types while combining similar products in production to improve machine utilization.
Demand Driven Supply Network	Model and manage an unlimited number of inputs and outputs through recipe and formula management system. Define all of the resources of production including ingredients, co-products and by-products, machine, labor, utilities, and quality assurance variables.
Detailed Production Cost Analysis	Analyze and monitor production cost and requirements for each component of a sales order using graphical representations of multilevel formulas and recipes.
Enhanced Picking	Pull inventory in optimal sequence, employing "best before" management, and enabling customer service to ship lots that arrive with the correct amount of shelf life remaining. Employ either first expiry/first out (FEFO) or first in/first out (FIFO) calculations for inventory reservation and picking, thus reducing inventory and eliminating waste.
Extensive Audit Trails	Incorporate electronic signature functionality into business processes, providing complete visibility and audit trails.
Flexible Planning and Scheduling Tools	Adjust product mix quickly to respond to changes in demand. Estimate the impact of different sales scenarios using "what-if" simulations. Schedule multiple package types and consider recurring or rework products when scheduling. Deploy finite or infinite capacity and materials scheduling, backward or forward scheduling, detailed scheduling by hours and minutes, or scheduling by day.

FEATURES

Integrated Quality Control (QC) Capabilities	Know the correct inventory status for any given item, including designations for QC testing, QC and failed, and downgrade of product. Manage quarantined products throughout the QC process and track their release from quarantine.
Lot Inheritance*	Configure items in a manner where their products qualitative and quantitative characteristics and shelf life information can be inherited by the manufactured items from their ingredients.
Manufacturing Process Validation	Accelerate and simplify compliance with requirements from regulatory agencies such as the FDA by validating manufacturing processes.
Product Sequencing*	Reduce changeover times and improve production capacity utilization. Define desired sequencing of products characteristics, characteristics that are desired to be sorted so that products with similar characteristics are scheduled and produced together. Sequencing can be done based on one or more of the products characteristics based on a predetermined ranking.

* Indicates a Fullscope Process Industries 2 (PI2) capability.