Microsoft Dynamics AX

Factsheet

Microsoft

Better manufacturing through connected operations

Competition is greater than ever before. To succeed, manufacturers have to show a higher value proposition to market. Whether it's through faster response times, higher quality products, or exceptional customer service and relationships, manufacturers are being asked to do more. To maintain a competitive advantage, manufacturers require flexibility in their operations and must continually drive innovation—not only in the marketplace but also in how they do business.

Microsoft Dynamics AX provides manufacturers a solution that is architected with flexibility and change in mind, built with operational excellence at its core, and focused on allowing you to drive innovation and be the market leader. It also gives businesses the flexibility to grow at their pace through the choice and flexibility of the Microsoft Cloud, allowing them to scale their operations globally to meet business needs.

Accelerate product introductions

Workspaces

In this new release and taking advantage of the new enhanced UI, we are introducing a new concept called "Workspaces" with the goal of connecting people with data and processes to increase better make decisions. The newly added workspaces include Environmental Manager, Operations Manager, Production Manager, and Shop Supervisor.

Material and capacity planning

Optimize production and materials planning, forecasting, and scheduling. Simultaneously schedule materials and capacity. Calculate available-to-promise (ATP) and capable-to-promise (CTP) deliveries. Plan and execute routing and operations. Use finite or infinite planning.

Product configuration

Configure custom products with a unique bill of materials and routing by using the product configurator. The product configuration models are based on constraints and can be used from sales order, sales quotation, purchase order, and production order.

Distribution

Microsoft Dynamics AX provides manufacturers with distribution needs a solution built to provide operations and logistics excellence while also offering 360-degree visibility and control throughout the entire supply chain.

Product change management

Effectively manage product changes through a formal product changes methodology. With the new functionality you'll be able to have a defined process to initiate, document, approve and release changes to product during the planning and production cycles.

Inventory management

Track items by inventory dimensions, including site, warehouse, pallet, location, batch, and serial number. Take advantage of multiple inventory control systems and inventory valuation methods including first in/first out, last in/first out, standard cost, moving, and weighted average.

Demand Forecasting

Demand Forecasting is a lightweight, yet powerful tool that enables organizations to forecast based on historical data, leverage the power of Azure Machine Learning, adjust the forecasts using Microsoft Excel, and import the values into Microsoft Dynamics AX forecast models.

Service

With Microsoft Dynamics AX, companies can earn customers for life by providing relevant, personalized service—at any time and via any channel. Businesses can empower your customer service agents with everything they need at their fingertips to deliver amazing customer service.

Product management of goods and services

Centralize management of products and services across the organization including BOM, formulas, and recipes.

Lean manufacturing

Model manufacturing and logistics processes as production flows. Use kanbans and kanban boards to signal demand requirements.

Quality management

Improve business processes for quality assurance, quality control, and lot traceability. Manage the test process. Set aside items in quarantine using quarantine orders.

Sales

With Microsoft Dynamics AX, businesses can focus on what's most important to their customers, win faster with the right tools and information, and sell more with a toolset that effectively manages and enhances your sales efforts.

Marketing

With Microsoft Dynamics AX Marketing, businesses can unleash their marketing potential, easily planning, executing, and measuring campaigns from start to finish. Engage customers across channels, build pipeline, and demonstrate the impact of marketing.

Agile shop floor execution

Production scheduling and sequencing

Use finite or infinite scheduling, forward and backward from various dates. Quickly (re)schedule jobs and simulate alternatives by dragging Gantt chart items. Resolve scheduling overloads by reassigning operations to alternate work centers. Optimize scheduling across the organization with a unified resource model and scheduling engine. Improve machine utilization by combining similar products while letting customers request multiple quality specifications per product (product batch sequencing).

Production reporting

Gain insight with predefined KPIs in the SQL Server analysis data cube for production.

Subcontracting

Manage various ways of partnering with subcontractors, including outsourcing of route operations, vendor-supplied items, and item provisioning to subcontractors. Link subcontractor purchase order (PO) to production order.

Production Bill of Materials (BOM, forumlas, recipes)

Create a bill of materials for production including phantoms using a graphical BOM designer. Modify and track individual line items. Manage multilevel formulas or recipes, co-products, and byproducts; and use version control to track changes.

Routing

Manage routing: Plan simple, sequential, and complex networks; use simultaneous routes in the same network. Use rough-cut capacity and detailed scheduling capabilities. Organize the shop floor into logical production units at individual sites.

Resource management

Schedule and track material, shop, and manpower resources. Plan resources based on production activities and capabilities of resources. Types of resources can be tool, machine, vendor, location, and human resource. Resource allocation principles include resource requirement types: resource (group), type, capability, skill, course, certificate, and title.

Production orders

Create, schedule, view, track, split, roll back, or categorize production orders to maximize efficiency. Create production orders from sales orders. Follow production through creation, estimation, schedule, release, started, finished, and cost. Use scrap on BOM, resource, and route. Trace products and components through the entire manufacturing process and enable bi-directional traceability from customers back to vendors, and vice-versa.

Inventory dimensions for process manufacturing

Define multiple inventory dimensions, including dual units of measure, catch-weight calculations, packaging codes, variations to the main item and lots.

Potency management

Manage the concentration of an active ingredient through the entire manufacturing process. Enable manufacturers to model potency at each and every step of their manufacturing processes, which allows them to meet their industry-specific requirements while giving them a significant competitive advantage.

Production costing

Understand work in progress (WIP) and actual cost through production tracking and reporting. Track detailed resource and throughput costs, including work center costs. Report production variances to standard costs.

Job card device page

With the new Job card device page, shop floor workers will find less information overload and more intuitive ease of use. Workers can perform the traditional tasks, such as starting, ending, and reporting progress on a job, as well as working on the actual job, logging and clocking out, viewing attachments, breaking for lunch, and performing other activities.

Shop floor control

Manage and track shop floor operations. Register products and resources and items for operations and jobs including a touch-enabled data entry. Provide shop floor workers visibility with an overview of the production jobs that need attention.

Intelligent order fulfillment

Multi-site warehouse management

Manage storage locations and material handling within warehouses. Apply advanced inbound algorithms using multiple warehouse zones and replenishment strategies. Optimize picking with a choice of picking methods. Track inventory on hand per warehouse.

Returns management

Manage the return order process. Control who can return items and which items can be returned. Categorize returns according to reason code or method of disposition.

Shipping carrier interface

Automatically transfer information received from shipping carriers (FedEx, UPS, and Kewill), including freight charges and tracking numbers, to Microsoft Dynamics AX.

Material handling

Increase quality of material handling with Radio Frequency (RF) support. Support material handling within the warehouse with browser-based mobile handheld RF-devices. Create mobile handheld device menus from within Microsoft Dynamics AX including creation of new menus for each user or user groups, change layout and colors, and error log and actions. Last but not least, use warehouse operation in manufacturing organizations for Raw material picking and report-as-finished support.

Tracking and tracing

Collect, track and trace Inventory and tracking dimensions throughout the end to end logistic processes of the supply chain throughout inventory, warehouse, production and transport processes. Track back batch or serial numbers for quality incidents, register and monitor batch attributes, expiry and shelf life dates.

Master planning, including order promising (ATP/CTP)

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Intercompany

Automate trade between subsidiaries or distribution centers. Sales and purchase orders can be generated manually or automatically across your subsidiaries.

Purchasing policies and signing limits

Enforce purchasing policies with a collection of purchasing policy rules that control the procurement process. A centralized procurement desk defines policy rules to support global policies and processes, and applies them to purchase requisitions and purchase orders based on the legal buying entity and operating unit.

Indirect procurement (catalog and non-catalog)

Manage purchase requisitions of indirect goods and services using a catalog-based or non-catalog-based procurement process. The procurement process is supported by an approval workflow using the organizational hierarchy.

eProcurement

Improve decision-making by defining evaluation criteria upfront and improve management of Request for Information (RFIs), Request for Proposal (RFPs) and request for Quote (RFQ) from solicitation to award. Increase sourcing efficiencies through well-defined scoring criteria and rank vendor response based on multiple criteria.

Category management

Provides category managers the ability to define different category hierarchies that are independent of, but still related to, commodity codes or catalog/item hierarchies in order to easily manage the overall spending based on categories.

Direct procurement

Manage the entire lifecycle of procurement from planned purchase order to confirming and changing a purchase order. This cycle also includes returned orders. This module also supports direct deliveries, pro-forma purchase orders, and landed-cost charges to purchase orders such as freight, insurance, and unrecoverable taxes.

Intelligent order fulfillment

Trade agreements (vendor)

Manage price and multifaceted discount policies in all currencies. The price revision process can be governed by workflows to ensure compliance with internal policies. The generic currency agreement allows prices to be set up in a single currency and automatically converted to the vendor's currency.

Vendor management

Vendor management includes vendor search, vendor maintenance, and support for requesting and approving a new vendor via the Enterprise Portal supported by workflow. Take advantage of Sites Services* to extend the vendor onboarding process with a cloud-based service facilitating the dialog with new vendors.

Vendor self-service portal

Enable vendors to update profile data, upload catalog content, and review invoices and payments. Vendors can receive notifications from the organization, respond to RFQs, and view vendor performance.

Vendor rebate management

Automate administration, tracking and claiming process of vendor rebates and Reduce administrative burden and errors associated with promotion performance monitoring and claim processing and improve cash flow forecasts through accruing for future receivables. Have a quantified basis for ongoing and future negotiations on rebates with the vendor.

Broker and royalty contract management

Manage payment of fees to brokers for the service of facilitating sales with broker contract management. Control usage-based payments for the right to the ongoing use of an asset or an intellectual property with royalty management. This module will reduce the administrative burden of managing royalties and broker payments.

Procurement reporting

Gain insight into the organization's procurement performance using transactional reports, analytical reports (such as vendor and procurement spend analysis, top 100 vendors, vendor performance), and KPIs. A predefined data cube for purchasing is included.

Procurement workflows

Procurement operations can be driven and governed by workflows. With the flexible and visual workflow engine, procurement managers are able to set up workflows that make the procurement cycle more efficient and enforce purchasing policy compliance

What's new in Microsoft Dynamics AX?

Production floor management workspace

This feature lets the production supervisor check whether materials for scheduled production orders are available on the required date. In the workspace, the production supervisor is informed how many production orders are in the scheduled state and are pending release.

Job card device page

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Master planning workspace

The Master planning workspace offers at-a-glance information about when the last master planning run was completed, whether it had any errors, what the urgent planned orders are, and which planned orders cause delays. Gain quick insight into the status of a master planning run, the urgent planned orders, and the planned orders that cause delays.

Action graph

The action graph provides a better overview, and has options to show only applied and directly related actions. When actions are applied, they appear dimmed but are still displayed to keep the overview. Additional information is added to the action graph to display the data on one page.

Microsoft Excel integration

Workers can use Microsoft Excel to update their demand forecast, helping them increase efficiency and productivity by accelerating the process of updating directly from a spreadsheet. Workers can update and delete directly from Microsoft Excel before submitting it to Microsoft Dynamics AX.

Azure Machine Learning integration

Estimate future demand by using the power and extensibility of a Microsoft Azure Machine Learning cloud service. The service performs best-match model selection and offers key performance indicators (KPIs) for calculating forecast accuracy. Generate more accurate forecasts based on historical transactions.

Purchase order preparation workspace

The Purchase order preparation workspace provides an overview of orders from the time when they are created as a draft and traced, through workflow approval states, and onward toward confirmation. Your purchasing department no longer has to seek information from multiple pages but benefit from the overview that the workspace provides.

Purchase order receipt and follow-up workspace

The Purchase order receipt and follow-up workspace provides an overview of confirmed purchase orders that have pending receipts or shipments. This workspace includes lists of post-due and pending receipts to help with proactive review and follow-up by the supplier, as well as other relevant information to guide follow-up and help improve productivity.

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