

Microsoft Dynamics AX 2012 Product Overview

Microsoft Corporation

June 2012



Product Overview

Table of Contents

Overview	3
Industry-Specific Capabilities	5
Manufacturing	5
Retail	5
Distribution	5
Services Industries	5
Public Sector	5
Industry and Core ERP Capabilities	6
Financial Management	6
Human Capital Management	8
Production	9
Supply Chain Management	11
Procurement and Sourcing	12
Retail	14
Project Management and Accounting	15
Sales and Marketing (CRM)	17
Service Management	18
Business Intelligence and Reporting	19
Application Foundation	20
Reference Data	20
Master Data	20
Global Engines	21
Technology Framework	22
Clients	22
Servers	23
Tools	24
Microsoft Productivity and Application Platform Interoperability	25

Product Overview

How to Use This Document

This product overview is intended to convey a high-level understanding of the structure, key modules, features, and benefits of Microsoft Dynamics AX 2012 to readers that are not familiar with the product. It highlights the value delivered to our key industry sectors including manufacturing, distribution, services, and Public Sector. It then details the horizontal application solutions including financials, human resources, supply chain management, and others. Finally, the solution describes the application foundation, system framework, and interoperability with the Microsoft productivity suite and application platform.





Microsoft Dynamics® AX 2012 is the Microsoft enterprise resource planning (ERP) solution for enterprises that empowers your people to anticipate and embrace change so your business can thrive. It helps employees be more productive and increases the value of information by providing all people in the organization with access to critical business information and processes. Because it includes rich industry and core ERP capabilities in a single, global solution, Microsoft Dynamics AX 2012 promotes fast time-to-value. Simple to learn and use, it provides the agility you need to expand business opportunities, modify processes, and differentiate your business. With pervasive interoperability, you can take advantage of existing investments, lower the total cost of ownership (TCO), and support innovation in your organization.



Figure 1: Microsoft Dynamics AX 2012 product overview.

The Microsoft Dynamics RoleTailored user interface includes more than 30 Role Centers and makes it easy for everyone in key business areas to access and share self-service business intelligence (BI) and reporting. Organizations can license Microsoft Dynamics AX 2012 through a simple model based on user types that helps an organization buy licenses based on the exact needs of their individual users with options to grow easily as needed.

Product Overview

Overview



In a single solution, Microsoft Dynamics AX 2012 helps enterprises meet their business requirements easily with purposely built capabilities for five industries (Manufacturing, Distribution, Retail, Public Sector, and Services). In addition, the core ERP capabilities support all users with financial management, human capital management, supply chain management, sales and marketing, and more. Figure 2 shows a high-level overview of Microsoft Dynamics AX 2012 capabilities.

The same single solution can support specific business requirements easily by extending the industry foundation with packaged vertical solutions from the Microsoft® Partner Network, a large partner ecosystem of global

systems integrators (GSIs), independent software vendors (ISVs), and value-added resellers (VARs). Microsoft Dynamics AX supports global organizations by managing multisite operations through shared reference data, master data, global engines, and business processes, as well as country-specific capabilities, in a single instance. Development tools such as Microsoft Visual Studio® allow for easy customization to fit specific organization requirements.

INDUSTRY-SPECIFIC **CAPABILITIES CORE ERP CAPABILITIES MANUFACTURING** FINANCIAL MANAGEMENT **BUSINESS INTELLIGENCE AND HUMAN CAPITAL MANAGEMENT** REPORTING Lean, process, and discrete manufacturing · General ledger · Organizational and workforce Standard, impromptu, and analytical reports with Microsoft SQL Server® · Accounts receivable and payable management · Bank management · Recruitment and selection Reporting Services Budgetary control · Development, training, · RoleTailored, predefined, multidimensional data cubes Shared service support and performance management DISTRIBUTION · Compliance management · Employee self-service portal · Dashboard views of key Wholesale, warehouse · Expense management performance indicators management, and distribution **PRODUCTION SUPPLY CHAIN** PROCUREMENT AND **MANAGEMENT** SOURCING RETAIL Inventory managementMultisite warehouse management · Material and capacity planning · Direct and indirect procurement · Resource management · Purchase requisitions Merchandising, point of sale, · Job scheduling and sequencing · Supplier relationship management · Trade agreements and store management Product configuration · Order promising Vendor self-service portal · Shop floor management Distribution planning · Quality management **SERVICES** Project and resources operations: **PROJECT MANAGEMENT** SALES AND MARKETING SERVICE MANAGEMENT talent and skills management AND ACCOUNTING · Project accounting and invoicing · Sales force and marketing · Service orders and contracts · Project cost control · Service calls and dispatching · Repair management PUBLIC SECTOR Work breakdown structures • Lead and opportunity management · Interoperability with Microsoft Project Sales management Service subscription Grants management, · Microsoft Dynamics CRM Connector commitment accounting, and fund accounting

Figure 2: Microsoft Dynamics AX 2012 functional domains.

Product Overview: Industry-Specific Capabilities

Industry-Specific Capabilities

Manufacturing

Take advantage of a single, unified solution that includes the ability to run discrete, process, and lean manufacturing all at once. Use powerful horizontal applications such as production and supply chain management to modernize and grow your manufacturing business. Key business processes supporting manufacturing industries include:

- Discrete manufacturing
- Process manufacturing
- Lean manufacturing
- Multisite planning and manufacturing
- Shop floor management



Retail

Today's retail landscape offers unprecedented opportunity even as it presents new challenges. Economic pressures, increasing choice in products and shopping formats, and unparalleled access to information are fueling today's empowered shoppers, who expect more from their retail experiences. Dynamic retailers drive retail across channels, locally or globally, with a single solution for store operations and back-office ERP, including the following capabilities:

- Point-of-sale
- Multichannel management
- Store operations
- Merchandising

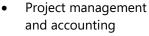
Distribution

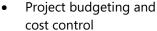
Support rapidly changing conditions in a business with global complexity. Microsoft Dynamics AX 2012 offers key capabilities such as supply chain management and multisite to allow you to scale your business quickly. Distribution-specific capabilities include:

- Warehouse management
- Supply chain planning
- Sales order management
- Product information management
- Procurement and sourcing

Services Industries

Balancing client relationships, global resources, service delivery, and financial results is critical for companies in the services industry. Key capabilities include:





- Employee self-service
- Client relationship management

Public Sector

Governments need to modernize their workplaces by replacing old technology, increasing productivity, operating transparently, meeting compliance requirements, and maintaining fiscal accountability. Microsoft Dynamics AX 2012 offers Public Sector organizations key capabilities including client (constituent) relationship management and financial management. Specific Public Sector capabilities include:

- Grants management and multiyear CIP project accounting capabilities
- Budgetary control
- Fund-based accounting
- Encumbrance and pre-encumbrance accounting



Product Overview: Industry and Core ERP Capabilities

Industry and Core ERP Capabilities

Financial Management

Provide a fast and efficient way to register financial transactions, manage relationships between subsidiaries and the parent organization, and manage internal cost accounting. Gain financial insight, help control expenditures, and support the enforcement of accounting policies and rules.

Figure 3: Easily create organization hierarchies based on the financial dimension departments to view and report on your business from different perspectives.



Module	Description
Role Centers	Accountant, accounting manager, accounts payable coordinator, accounts receivable administrator, bookkeeper, chief executive officer (CEO), chief financial officer (CFO), controller, treasurer, budget manager, environmental manager, credit and collections manager.
General ledger	Financial accounting record management with ability to configure multiple and recurring journals, allocation of cost and income, and support creation of closing transactions, including preparation of preclosing documents and closing books. Gain insight using unlimited financial dimensions and advanced account structures and rules.
Bank management	Maintain the legal entity's bank accounts and financial instruments that are associated with those bank accounts. Monitor deposits, payments, drafts, and bank balances with support for electronic payments. Manage letters of guarantee and checks.
Accounts payable	Match and pay invoices, allocate charges, pay expenses, commissions, and salaries, and track purchase order prepayments. Offer vendors access to relevant information through the vendor portal.
Accounts receivable	Track invoices, terms, and discounts. Process customer prepayments. Receive and enter customer payments. Monitor credit checks and manage collections with integration to case management to centralize and monitor all activities per case.
Fixed assets	Manage the full accounting life cycle of assets from acquisition to depreciation, and transfer/disposition.
Cost accounting	Track, record, and analyze costs associated with products or activities including normal, absorption, and standard costing methods.

Product Overview: Industry and Core ERP Capabilities

Intercompany accounting and shared services support	Book transactions across subsidiaries and the parent company. Consolidate financial records. Support shared services in organizations with multiple legal entities by using centralized processing of customer and vendor payments.
Country-specific capabilities	Supports multiple currencies, as well as country-specific capabilities to help organizations meet local and regional financial regulations (such as value-added tax (VAT) requirements) and market requirements (such as electronic banking).
Budgetary control	Manage your organization's budget including flexible configuration options, instant calculation of available budget funds, pooling of budgets, and budget workflows for review and approval.
Compliance and internal controls	Help ensure compliance with laws, regulations, policies, and business rules. Manage the implementation and execution of internal controls with the Compliance Center. Define corporate policies for expenses, invoices, and purchase orders and automate the auditing process with the Audit Workbench. Use electronic signatures to identify and register the person changing and/or approving changes. The toolset is supplemented with a database log that enables administrators to see when a record was created or last changed, and who changed it. Ensure segregation of duties with role-based security. Determine the organization's environmental footprint using the Environmental Manager Role Center.
Financial reporting	Financial statements enable a custom reporting structure and mapping of ledger accounts or dimensions to the reporting structures. Financial reports, to comply with legal requirements and international accounting standards, include balance sheet, income statement, and cash flow statement. Financial statements are compatible with Extensible Business Reporting Language (XBRL). In addition, gain insight into the organization's financials using transactional reports (retrieve data from the transaction processing database), analytical reports (retrieve data from Microsoft SQL Server® Analysis Services cubes), and key performance indicators (KPIs). Examples of predefined cubes for the financial domain are accounts payable, accounts receivable, environmental sustainability, and general ledger. Create boardroom-quality reports without IT assistance, consolidate across both Microsoft Dynamics ERP and other general ledgers, and take advantage of secure report distribution and storage through the centralized Report Library using Management Reporter.*

^{*} Requires Management Reporter.

Product Overview: Industry and Core ERP Capabilities

Human Capital Management

Take advantage of a comprehensive framework of human resource management capabilities including storing and managing employee records, employee recruitment and training, and organization management.



Figure 4: Skill-gap analysis person-job.

Module	Description
Role Centers	Human resource manager, training manager.
Organization administration	Administer organizational structures, including formal and informal hierarchies and position management.
Recruitment and selection management	Administer recruitment processes including campaigns, screening, developments, and candidate correspondence. Sites Services* extend the recruitment process with a cloud-based service facilitating the job posting process to and application of external candidates.
Development and performance administration	Manage employee development and performance including development plans, skill-gap analysis tools, and periodic career discussions.
Skill mapping	Analyze skills (gaps) based on job profiles and search for skills (including filtering and weighting of skills).
Training	Set up, deliver, and analyze training courses.
Employee self-service portal	Manage personal information, enter timesheets, order products, do expenses, and more with this single portal.
Travel and expense	Manage expenses with integrated workflow. Submit a travel requisition including projected cost of travel for approval. Define expense policies and automate the reimbursement of travel expenses. Gain insight into expense behavior with the expense management cube.
Benefits administration	Define organizational benefit plans, enroll workers in benefits, assign dependent coverage, and designate beneficiaries.
Absence management	Establish, communicate, and monitor absence policies.
Time and attendance	Track profile-based, clock-in/clock-out registrations for workers and generate pay information to payroll system.
Compensation management	Manage employee compensation.

^{*} Check availability with your Microsoft Dynamics partner or local Microsoft office.

Product Overview: Industry and Core ERP Capabilities

Production

Minimize lead times, fulfill customer demand, and manage your resources to get great efficiency from your discrete, process, and lean manufacturing operations. Use real-time data to track production progress, get more accurate delivery dates, and reduce costs. Execute multiple production strategies, including configure-to-order, assemble-to-order, make-to-stock, and make-to-order. Use both push and pull production control mechanisms.

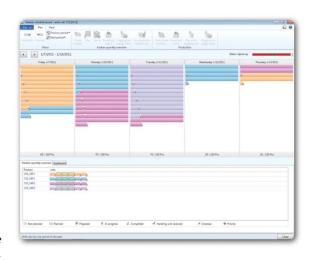


Figure 5: User interfaces such as the kanban scheduling board feature an intuitive visualization to help you stay on top of production job status.

Module	Description
Role Centers	Operations manager, production manager.
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.
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.
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.
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)	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, coproducts, and byproducts. Use version control to release the right BOM, and electronic signatures to track changes.

Product Overview: Industry and Core ERP Capabilities

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.
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.
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 costed. Use scrap on BOM, resource, and route.
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.
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.
Lean manufacturing	Model manufacturing and logistics processes as production flows. Use kanbans and kanban boards to signal demand requirements.
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.
Production reporting	Gain insight with predefined KPIs in the SQL Server analysis data cube for production.

Product Overview: Industry and Core ERP Capabilities

Supply Chain Management

Connects sales and purchasing processes with logistics, production, and warehouse management to provide visibility and management throughout the supply chain. Manage distributed organizations with intercompany and multisite capabilities.



Figure 6: Supply scheduling.

Module	Description
Role Centers	Purchasing agent, purchasing manager, shipping and receiving, order processor.
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 (FIFO), last in/first out (LIFO), standard cost, moving, and weighted average. Reduce inventory costs and eliminate waste by using the ABC-analysis and by pulling inventory in optimal sequence using "best-before" management and first expired/first out (FEFO) or first in/first out (FIFO) picking guidance.
Multisite 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.
Shipping carrier interface	Automatically transfer information received from shipping carriers (Fedex, UPS, and Kewill), including freight charges and tracking numbers, to Microsoft Dynamics AX.
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.
Product management of goods and services	Centralize management of products and services across the organization including BOM and process formulas (see Product Information Management).
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.
Master planning including order promising	Forecast delivery dates using operations or bottleneck scheduling. Calculate available-to-promise (ATP) and capable-to-promise (CTP). Plan across multiple sites.
Forecasting	Enter and edit sales and purchase forecasts. Use specific keys to allocate forecast to individual items and time periods.
Intercompany	Automate trade between subsidiaries or distribution centers. Sales and purchase orders can be generated manually or automatically across your subsidiaries.

Product Overview: Industry and Core ERP Capabilities

Procurement and Sourcing

Facilitate direct and indirect procurement of goods and services, and establish a centralized buyer capability across your organization to support procurement policies and processes.



Figure 7: Catalog-based procurement.

Module	Description
Role Centers	Purchasing agent, purchasing manager, employee, shipping and receiving, order processor.
Direct procurement	Manage the entire life cycle 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.
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.
Agreements	Manage agreements based on monetary or volume commitments. Organizations are able to set up agreements with specific terms and conditions and monitor the status.
Request for quotations (RFQ)	Manage the RFQ process including vendor reply, comparison, and selection. Replies can be entered by the vendor in the vendor portal. Take advantage of Sites Services* to extend the procurement process with a cloud-based service facilitating the RFQ process.
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.

Product Overview: Industry and Core ERP Capabilities

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. A Microsoft SharePoint®-based catalog can easily be created from products defined in product information management. The catalog also supports punch-out capabilities to external vendor sites. Sophisticated budget check is included.
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.
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. For procurement and sourcing there are six policy rules: catalog, catalog access, category, purchase requisition RFQ, purchase requisition control, and purchase order creation and demand consolidation. In addition to policy rules, Microsoft Dynamics AX 2012 provides expenditure reviewers and signing limits.
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.

^{*} Check availability with your Microsoft Dynamics partner or local Microsoft office.

Product Overview: Industry and Core ERP Capabilities

Retail

Extend ERP with multichannel management, store operations, and merchandising. Microsoft Dynamics AX 2012 offers integrated capabilities to run your retail operations with a single platform.



Figure 8: A flexible RoleTailored interface, such as this point-of-sale (POS) screen, can help employees work productively and provide faster customer service.

Module	Description
Point of sale (POS)	POS components are natively integrated into Microsoft Dynamics AX 2012 with fault tolerance to capture transactions when store connectivity is lost. The POS user interface (UI) is easily customizable by role with a "drag-and-drop" designer. POS capabilities include on-account, global voucher, returns management, info codes, returns/voids/markdowns, inventory receipt/lookup/counts, real-time customer record and loyalty program updates, blind close, and floating till.
Centralized store management	Centralized POS terminal management includes visual and functional profiles, user interface layouts, and employee permissions. Consistent store/ERP data model and business rules facilitate accurate, timely data. Data replication helps ensure critical updates across the organization including inventory and financial updates, sales order payments, gift card usage, and updates to loyalty programs. Maintain staff information at store, regional, and global levels.
Multichannel management	Retail channel integration with online marketplaces and stores creates new opportunities for sales, customer interaction, and feedback. Integrate assortment and category management across the channels. Improve customer convenience with cross-channel scenarios such as "buy online/pick up in store."
Merchandising	Use category management to centrally manage your assortment including creation, scheduling, tracking, and using n-level deep item hierarchies and category management. Optimize for profitability with multifaceted discounts, coupons, mixand-match, and buy-one-get-one scenarios.
Order management	Create orders and quotations without leaving the customer's side using POS-based order support capabilities. Accept, fulfill, and track standard and special orders with a 360-degree business view. Manage and apply required tax schemas. Perform price and inventory checks and manage inventory reservations.
Hardware and payment compliance	Support retail industry standards, including object linking and embedding (OLE) point of sale (OPOS), to maximize POS hardware and peripheral choice. Manage peripheral component interconnect (PCI) data security standards compliance and ongoing support.

Product Overview: Industry and Core ERP Capabilities

Project Management and Accounting

Help project managers gain increased schedule, resource, and financial control over short-term and long-term internal and external projects. These capabilities are integrated with other Microsoft Dynamics AX domains including general ledger, sales, procurement, and production.

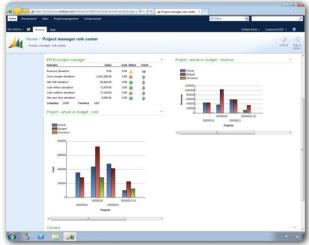


Figure 9: Project Manager Role Center.

Module	Description
Role Centers	Project manager, project team member.
Project management	Plan, create, manage, control, and complete projects for your organization including time and materials, fixed price, and internal projects like investment, cost, and time projects. Create a project hierarchy comprising multiple subprojects. Easily plan projects, large or small, by matching work requirements with available resources. Work breakdown structure (see below) templates make it easy to quickly plan common types of projects. Task requirements (skills, education, experience) help find the right resource for the job.
Work breakdown structures	Create your own hierarchical work breakdown structure for more detailed control. Add specific information to these activities including schedule, requirements, estimated cost and revenue, and worker attributes.
Project resource and schedule management	Schedule tasks and allocate resources. Track schedules, manpower usage, and cost-to-complete.
Project time and expense	Capture project time and expense quickly and accurately. Enter timesheets through project time management or Enterprise Portal. Time-entry is supported by an approval process. Charge travel-related expenses against specific projects with expense management. Full integration with expense management enables expenses to be distributed to a single project or across multiple projects.

Product Overview: Industry and Core ERP Capabilities

Module	Description
Project accounting and invoicing	Enter and itemize project costs, employee hours, materials used, and fees incurred. Streamline billing of projects by creating and editing invoice proposals for hours, expenses, items, sales orders, fees, subscriptions, advance and deduction payments, or milestones. Split billing enables shared project costs between multiple customers or internal organizations. Retention terms can be specified on customer invoices and vendor payments. Approval workflow ensures accurate project invoices before they are sent to the customer. Schedule payments to project vendors when you receive payments from customers (pay when paid). Retain part of payment to a vendor. Funding limits enforce contractual caps on project costs.
Project quotations	Work breakdown templates enable you to quickly build accurate project quotations. And project quotation profitability helps you select the right opportunities to pursue. Gain project visibility with quotation approval workflows.
Grant management	Manage project and grant funding by associating multiple funding sources with a project or grant, optionally linking any transaction to a specific funding source, prioritizing funding sources, and restricting funding sources to exclusive activities or classes of expenditures.
Revenue recognition and work-in-progress (WIP)	Recognize actual costs to avoid potential cost overruns. Post and accrue revenue for fixed price based on completion percentage or completed contract. Accrue revenue or capitalize costs for time-and-material projects to recognize gross margin. Handle WIP for investment projects during the project before final elimination of the WIP value to a fixed asset upon completion.
Project budgeting and cost control	Manage projects with forecast (hour, expense, item, fee, on-account) and budgets. Project budgets are workflow-enabled for approval of original budgets and revisions. Maintain project cost control by summarizing actual cost, committed cost, and remaining budget to discover total expected cost, and compare with the original budget. Measure utilization rates by comparing actual hours to budgeted hours. Compare the status of invoiced and chargeable transactions of a project or contract with the project quotation.
Interoperability with Microsoft Project	Projects can be integrated with the scheduling and resource management capabilities of Microsoft Project Server 2010 to streamline project management for any size of project. Take advantage of bidirectional interoperability with Microsoft Project for projects, activities, tasks, and resource allocation.
Reporting	Gain insight in project management performance with predefined KPIs in the project accounting cube. Access standard reports including reports for profit and loss, consumed costs, payroll allocation, invoice on-account, actual versus budgeted costs, and cash flow. Project control gives you a real-time snapshot of project performance. Utilization control gives you a real-time snapshot of project performance.

Product Overview: Industry and Core ERP Capabilities

Sales and Marketing (CRM)

Sales and marketing in Microsoft Dynamics AX 2012 delivers powerful, integrated customer, sales, and marketing management capabilities that can help your people build and strengthen customer relationships and increase sales.

Module	Description	
Role Centers	Marketing executive, sales manager, super sales rep, dedicated sales rep, account manager, marketing manager, and marketing staffer.	
Sales force automation	Forecast and plan sales.	
Trade agreements (customer)	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 customer's currency.	
Sales agreement	Manage agreements based on monetary or volume commitments. Organizations are able to set up agreements with specific terms and conditions and monitor the status.	
Marketing automation	Develop, conduct, follow up on, and analyze marketing campaigns for any defined group of customers and prospects.	
Lead and opportunity management	Manage leads and opportunities including the ability to create, review, update, and manage information about leads. Associate employees, responsibilities, and campaign data with stored information.	
Sales management	Set, monitor, and manage sales performance of sales personnel, sales units, and sales companies.	
Connector for Microsoft Dynamics CRM	Share sales information between Microsoft Dynamics AX and Microsoft Dynamics CRM both online and on-premises.	
Case management (including Sites Services)	Efficiently open, assign, resolve, and follow up on customer issues from a single form. Sites Services* extend the case management process with a cloud-based service, facilitating the dialog with customers.	
Commerce Services*	Extend sales reach to include multiple online channels such as your own online store front and online marketplaces such as eBay.	
Sales and marketing reporting	Gain insight in sales and marketing performance with predefined KPIs in the sales and customer relationship management (CRM) cubes.	

^{*} Check availability with your Microsoft Dynamics partner or local Microsoft office.

Product Overview: Industry and Core ERP Capabilities

Service Management

Plan, track, and analyze service operations to maximize efficiency, gain a complete overview of costs and revenue, and improve service profitability.

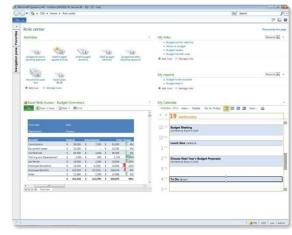


Figure 10: RoleTailored user interface provides people with contextual information.

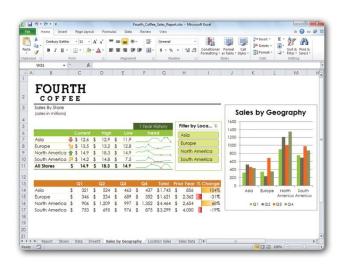
Module	Description	
Role Centers	Customer service manager.	
Service agreements	Tailor agreements to a wide range of customer requirements, service prices, and payment arrangements. Work with flexible templates and quickly create detailed, multilevel agreements, and define tasks and frequency for service calls.	
Service orders and contracts	A service order represents a visit of a service technician to a customer site. Set up orders manually or automatically at periodic intervals. Record service time, expenses, and items. Rapidly create service orders over the Internet with Enterprise Portal in Microsoft Dynamics AX.	
Service calls and dispatching	Create service tasks and appointments within the Microsoft Outlook® messaging and collaboration client.	
Repair management	Register repair tasks, track diagnosis, and record resolution. Identify faulty products.	
Service subscriptions	Create and process service subscriptions for fixed-price service over a period of time. Accommodate revenue based on fixed or irregular periods and multiple price arrangements.	
Performance reporting	Analyze expenses and profit and loss associated with the service engagement.	
Customer feedback management	Use case management and questionnaires to improve your customer service delivery.	

Product Overview: Business Intelligence and Reporting

Business Intelligence and Reporting

Analyze the factors that affect your bottom line with flexible and customizable analysis tools. Share the information throughout the organization where appropriate to make effective changes and improvements. The business intelligence solution in Microsoft Dynamics AX 2012 uses the Microsoft Business Intelligence solutions.

Figure 11: Easily export data from Microsoft Dynamics AX into Microsoft Excel®.



Module	Description
Microsoft SQL Server Reporting Services	Give employees instant access to information with built-in reports using Microsoft SQL Server Reporting Services. Automatically generate custom reports with Microsoft SQL Server Report Builder, an ad hoc query tool. Access a wide variety of standard reports (more than 800) including analytical reports.
Microsoft SQL Server Analysis Server	Drive actionable insights to people across the enterprise using easy-to-use online analytical processing (OLAP) and data-mining capabilities. Microsoft Dynamics AX 2012 provides preconfigured data cubes for key business areas. Employees can easily access the data from KPIs in their Role Center or directly from Microsoft Excel.
Management Reporter*	Create boardroom-quality reports without IT assistance, consolidate across both Microsoft Dynamics ERP and other general ledgers, and take advantage of secure report distribution and storage through the centralized Report Library.

^{*}Requires Management Reporter.

Product Overview: Application Foundation

Application Foundation

Reference Data

Share key reference data across multiple legal entities.

Module	Description	
Language	People and organizations have the option of presenting the Microsoft Dynamics AX user interface, online help, forms, reports, and menus in any of the available languages. Languages can also be used in printed reports, invoices, purchase and sales orders, and other business documents, and by remote users in the Enterprise Portal interface. Find an overview of the available languages here .	
Time zone	Support multiple time zones, which can be set at user level.	
Currency	Efficiently handle financial transactions in multiple currencies, including support of various currency calculations, and exchange rate retrieval. In addition you can use a base currency and a secondary reporting currency. Share exchange rates across multiple legal entities.	
Other	Take advantage of other reference data such as unit of measure, category, and (fiscal) calendar.	

Master Data

Share key master data across multiple legal entities.

Module	Description
Organization model	Model your organizational structures to accurately reflect your organization. Set up multiple organizational hierarchies to view and report on your business from different perspectives. You can define the following types of internal organizations: legal entities, operating units, and teams. View and edit the organizational hierarchy using a graphical representation.
Global address book	Share information on all organizations and people—internal and external—that the organization is engaged with through a common repository. The information in the global address book is abstracted in the form of a party. Roles associated with a party include customers, prospects, vendors, employees, competitors, contacts, and workers.
Product information management	Centralize management of products and services (non-stock items) across the organization, including bills of materials (discrete manufacturing), formulas (process manufacturing), and variant and configurable products. Describe items using up to four item dimensions: configuration, size, style, and color. Manage the release of products and services to individual legal entities.

Product Overview: Application Foundation

Global Engines

Use core ERP capabilities, such as tax calculation or resource scheduling, across the organization spanning multiple legal entities and/or operational units.

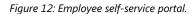
Module	Description
Tax calculation	Define flexible, multidimensional tax setup to comply with the various tax regulations in multiple countries. Use tax codes, tax groups, and item tax groups to configure taxes. The emphasis of the tax module is on sales taxes, but it could also be used to configure other duties and taxes, including country-specific tax reporting, packaging duties, EU reverse charge tax, and United States use tax.
Resource scheduling	Plan resources based on production activities and capabilities of resources. Types of resources can be tool, machine, vendor, location, and human resource.
Questionnaires	Design, schedule, and use questionnaires that can be used across functional domains and legal entities. The capabilities also include the communication capabilities with target audiences within and outside the organization. Questionnaires can be published on the web.
Document management	Attach documents to records throughout the application using the document management system. It handles several types of documents, including letters, worksheets, and simple notes.
Business policies	Define policy rules in functional modules to help guide the flow of business. The policy framework can be used to define policies including signing limits, expense reports, purchase requisitions, audit control of documents, and payment of vendor invoices.
Inventory dimensions	Inventory and tracking dimensions: Track physical and financial transactions using inventory dimensions including site, warehouse, location, pallet, batch, and serial number.
Financial dimensions	Get insight into your business by tagging transactions using unlimited financial dimensions. Dimensions are used across the various modules in Microsoft Dynamics AX, and can be used for tracking profit, cost centers, departments, value streams, product lines, or any other reporting units. The ability to update the general ledger online provides fast and accurate financial reporting.

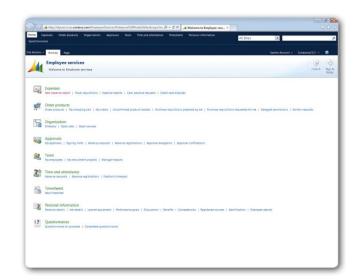
Product Overview: Technology Framework

Technology Framework

Clients

A client provides an interface to Microsoft Dynamics AX data and functionality. An external application is integrated with Microsoft Dynamics AX to programmatically integrate functionality or exchange data. The Windows® client for Microsoft Dynamics AX is a native 32-bit program that provides a rich user interface. Supported web browsers provide access to Microsoft Dynamics AX functionality and data through the Enterprise Portal. And, external applications interact with Microsoft Dynamics AX via services and Application Integration Framework (AIF).





Module	Description
Windows client	Power users access ERP data through the RoleTailored Windows client. More than 30 Role Centers provide these users with a role-specific "home page" to manage their daily tasks more effectively. The RoleTailored user interface also includes previews, fast tabs, and factboxes to increase productivity.
Internal and external portal	Portals use SharePoint technology as a foundation. The RoleTailored user interface extends to the SharePoint client. A subset of functionality is accessible through this client. In addition, Microsoft Dynamics AX 2012 includes predefined portals such as employee self-service, vendor, and customer portals.
Microsoft Office add-ins	Office add-ins offer information workers access to ERP data from productivity tools they use every day. Office add-ins provide a bidirectional interoperability with Excel spreadsheet software, and a one-way integration with Microsoft Word.
Help system	Provide help documentation in various formats to end users. Easily extend the help system with customer-specific documentation using templates and the help infrastructure.

Product Overview: Technology Framework

Servers

Module	Description	
Database server	Microsoft Dynamics AX 2012 is supported on the SQL Server database. See <u>system requirements</u> for specific versions.	
Services and application integration	Microsoft Dynamics AX 2012 includes an application integration framework (AIF) for application-to-application integrations. The AIF is the web services framework and uses a component in the Microsoft .NET Framework called Windows Communication Foundation (WCF). WCF provides a foundation for dealing with adapters (such as the Microsoft BizTalk® Server adapter) and network protocols for communication. Microsoft Dynamics AX also provides a range of preconfigured services.	
Cloud-based services	Sites Services*: Build microsites that extend business processes to the cloud and integrate easily with the on-premises ERP. See functional domain descriptions for the predefined scenarios: case request, human resources recruitment, request for quotation, and unsolicited vendor registration.	
	Payment Services* : Accept credit card and debit card payments on-premises and online with our PCI Level 1 Certified Service supporting authorization, voids, and refunds.	
	Commerce Services*: Extend sales reach to include multiple online channels such as your own online store front and online marketplaces such as eBay.	
	Connect Services: Provide employees easy access to training, support, peer networking, and much more directly from within Microsoft Dynamics AX.	
Role-based security	Role-based security manages access to data and functionality. In role-based security, users are assigned to (predefined) roles based on their responsibilities in the organization and their participation in business processes. Rules allow for automatic role assignment. Users can be authenticated with Active Directory® directory service or other methods. Data security policies in the extensible data security framework allow for managing access to subsets of data, such as a subset of sales orders or vendors.	
Other	Take advantage of other services such as batch, language, and data access services.	

^{*} Check availability with your Microsoft Dynamics partner or local Microsoft office.

Product Overview: Technology Framework

Tools

Module	Description
Install, configure, and upgrade	 A comprehensive set of tools throughout the application life cycle simplify installation, configuration, and upgrade efforts including the following tools: Microsoft Dynamics RapidStart Services,* which improves time to value through easy configuration and deployment based on questionnaires. To maintain the database size, the Data Management Framework provides the purge and archive functions. Advanced checklist for installation and upgrades. Code and data upgrade tools. Microsoft Dynamics InformationSource provides resources to analyze, design, configure, and customize the ERP solution.
Software change management	The Microsoft Dynamics AX integrated development environment (IDE) can integrate with various version control systems (VCS) including MorphX® VCS software or Visual Studio Team Foundation Server.
Systems and data management	Administrators have tools to manage the application with Windows PowerShell™ command line interface and the AXutil. Monitoring the application server and underlying Windows, database, and application server components is provided through Microsoft System Center.
Workflow and business process management	Improve and automate business processes with workflow extending .NET Workflow Foundation. Workflow provides support of the four steps of the business improvement cycle: design, implementation, run, and analyze. The workflow system includes a graphical workflow editor and is delivered with approximately 60 workflow types across the application. Workflows can be analyzed using the predefined workflow analytical cube and associated reports.
Integrated development environment (IDE)	Developers can access the developer tools through the MorphX IDE in the Microsoft Dynamics AX client or through Visual Studio Tools in Visual Studio. MorphX includes tools for designing, editing, compiling, and debugging code.
Programming language X++	X++ is the object-oriented programming language that is used in the MorphX development environment. X++ has Microsoft Visual $C\#_{\$}$ -like syntax, and incorporates SQL Server data manipulation statements.
Enterprise search	Enterprise search in Microsoft Dynamics AX 2012 enables users to search through data, metadata, and documents that are attached to records by using either the Microsoft Dynamics AX client or Enterprise Portal. Interoperability with SharePoint Business Data Connectivity Services is provided to use enterprise search. See system requirements for specific software components needed.
Process documentation	The Task Recorder helps record tasks in the application. A document, including step-by-step instructions and relevant screenshots, is automatically generated. Document format choices are Microsoft PowerPoint® presentation, Word document, or Microsoft Visio® file.

 $^{{\}it * Check availability with your Microsoft Dynamics partner or local Microsoft of fice.}\\$

Product Overview: Microsoft Productivity and Application Platform Interoperability

Microsoft Productivity and Application Platform Interoperability

Drive innovation—today and tomorrow—by working with a standard Microsoft technology platform that simplifies deployment and lowers costs, giving you the power to drive your business forward. You can deploy in the way that works best for you—on-premises, in the cloud (through partners), or using a hybrid model—and make incremental changes as needed. With Microsoft Dynamics AX, you get a business solution from Microsoft that is backed by an ongoing commitment to research, development, and innovation. Combine Microsoft Dynamics AX with other Microsoft products and technologies.

Product Suite	Microsoft product
Business Productivity Solutions	Microsoft Outlook Microsoft Excel Microsoft Word Microsoft Project Server Microsoft Lync® Microsoft SharePoint
Application Platform	Microsoft SQL Server Microsoft BizTalk Server Microsoft System Center
IT Infrastructure	Windows Windows Server®
Developer Tools	Microsoft Visual Studio Microsoft .NET Windows Communication Foundation Windows Workflow Foundation

Full system requirements for Microsoft Dynamics AX 2012 are available on Microsoft.com.



Take the next step toward becoming a dynamic business—the Microsoft Dynamics vision for organizations that can continuously evolve to face economic, operational, and organizational challenges. Microsoft Dynamics AX 2012 can help your organization become more agile, so you can adapt quickly to change, expand into new markets, and develop innovative products and services.

Talk to your partner about the business benefits Microsoft Dynamics AX 2012 could offer.

FOR MORE INFORMATION ABOUT

Microsoft Dynamics AX 2012, visit: www.microsoft.com/dynamics/ax

