



## What's new in Microsoft Dynamics AX 2012 R2

New Functionality Name	AX Version In Which This Feature Was Introduced	AX Module Name	New Functionality Description
Adjust taxes on an invoice line	2012 R2	Accounts payable	You can adjust the taxes that are calculated on an invoice line before you post the invoice.
Integrate a payment calendar to control due dates for payments	2012 R2	Accounts payable	<p>New functionality for a payment calendar in the Accounts receivable and Accounts payable areas replaces similar functionality that was previously available only for certain countries/regions. When the payment calendar is used together with rules for due dates, companies can specify non-business days for countries and regions, and additional holidays at the state and province levels. Companies can also specify non-business days for any other purpose, such as non-banking days. This functionality helps guarantee that due dates for payments on vendor and customer invoices are not set for non-business days. When a payment is due on a non-business day, the new due date control moves the date to the nearest business day either before or after the default date, based on options that you select.</p> <p>You can also use the due date control together with the payment calendar to make sure that calculations of grace periods for interest and fees for payments start on the nearest business day. This functionality can be used, for example, to enhance the due date and payment date control in Accounts payable. You can then avoid any unplanned interest or fees for late vendor payments. Additionally, payment processing is easier, because due dates are always on a processing day.</p>
Generate positive pay files to help banks prevent check fraud	2012 R2	Accounts payable	<p>Set up positive pay to generate an electronic list of checks every time that checks are printed. When a check is presented to the bank, the bank compares the check with the list of checks that was previously submitted. If the check matches a check in the list, the bank clears the check. If the check does not match a check in the list, the bank holds the check for review.</p> <p>Positive pay is also known as SafePay.</p> <p>In AX 2012, you can create prepayments for the line amounts on a purchase order. However, charges and taxes are not included in prepayments.</p>
Prepay 100 percent of a purchase order amount	2012 R2	Accounts payable	<p>In cumulative update 6 for Microsoft Dynamics AX 2012 R2, you can prepay either 100 percent or a fixed amount that is equal to the purchase order total. The prepayment can include taxes and charges that have a type of Customer/Vendor. For example, if the amount of a purchase order line is 1,000.00, and the sales tax amount is 125.00, the default entry for the prepayment is 1,125.00. In AX 2012, the default prepayment amount was 1,000.00.</p> <p>The following options for vendor invoice workflows are added:</p> <ul style="list-style-type: none"> <li>You can create conditions that are based on values in purchase order fields.</li> <li>The Vendor invoice lines.Procurement category property now includes hierarchical operators for contains, begins with, is, and is not.</li> </ul>
New options for configuring workflows for vendor invoices	2012 R2	Accounts payable	
Record charges on free text invoice lines	2012 R2	Accounts receivable	This feature lets you add freight and other charges to each line in a free text invoice, and distribute charges to dimensions and ledger lines.
Create and approve budget plans	2012 R2	Budgeting	You can use budget planning in AX 2012 R2 to establish a base budget, prepare and evaluate budget plans, and approve or revise budget plans. You can also generate an approved budget that can be used together with budget control. Budget planning is configurable, and supports a flexible chart of accounts and dimensions, custom-defined process configurations, and workflows. Additionally, budget planning lets you use Microsoft Excel to estimate costs to create scenarios, and provides standard reports and an analysis cube.
Budget plan scenarios report	2012 R2	Budgeting	This report displays details about ledger accounts for up to five budget planning scenarios. The information is grouped and subtotaled by one, two, or three summary options.
The budget allocation process is easier, because you can use ledger allocation rules for budgets	2012 R2	Budgeting	The budget allocation process is easier, because you can use ledger allocation rules for budgets. When you run allocation for budget plan lines from the Budget plan form, you can select to use ledger allocation rules. You can also use ledger allocation rules when you use an allocation schedule. Additionally, you can now allocate budget amounts by using the basis method.
Budget planning workflows can be set up so that they can't be accidentally deleted or reset	2012 R2	Budgeting	The Do not allow budget plans to be deleted and Do not allow budget plans to be reset options are added to the Budget planning workflows area in the Budget planning configuration form.
Budget planning workflows can be set up so that they require a parent budget plan	2012 R2	Budgeting	The Require parent budget plan option is added to the Budget planning workflows area in the Budget planning configuration form.
Transfer multiple fixed assets	2012 R2	Fixed assets	You can now transfer more than one fixed asset at the same time. For fewer than 100 assets, you can complete the transfer from the Fixed assets list page. For more than 100 assets, use the Mass transfer form that is available in the Periodic section of the Fixed assets area page.
The acquisition cost of fixed assets can include a miscellaneous charge amount	2012 R2	Fixed assets	In earlier releases of Microsoft Dynamics AX, when a fixed asset was acquired, and the acquisition cost included miscellaneous charges, the acquisition amount of the fixed asset was adjusted to exclude the miscellaneous charges. Now, when a fixed asset is acquired through a vendor invoice, any item type miscellaneous charge amounts are included in the acquisition cost of the fixed asset.
The process for acquisition proposals or depreciation proposals for fixed assets can now be run in a batch process	2012 R2	Fixed assets	In earlier releases of AX 2012, the processes for depreciation and acquisition proposals could be very time-consuming. Now, you can create depreciation or acquisition proposals as a periodic process. After the process is run, journals are created, so that users can review the transactions before they post. For longer running proposals, such as depreciation proposals, you can select to create the proposals using a batch process.
Interunit accounting	2012 R2	General ledger	Interunit accounting can be used to identify a financial dimension as balancing, so that a balanced balance sheet can be generated for the selected financial dimension. After a balancing financial dimension is defined on the ledger, every accounting entry is validated to make sure that it is also balanced at the financial dimension level. If any financial dimension values are unbalanced, interunit due-to and interunit due-from account entries are generated to balance the accounting entry.

Legal entities can have more than one consolidation account	2012 R2	General ledger	Some local governments might mandate a specific chart of accounts, which is also known as a statutory chart of accounts. Main accounts can be shared between legal entities, and you can map the same main account to multiple consolidation accounts to create a statutory chart of accounts, which can also be shared between legal entities. The additional consolidation accounts are grouped in a consolidation account group, which you can select during the consolidation process.
Tax registration numbers can be defined at the party address record level	2012 R2	General ledger	You can create tax registration number types and set up tax registration numbers for customers, vendors, and legal entities at the address level.
Fixed values for financial dimensions	2012 R2	General ledger	For each main account in a specific chart of accounts, you can designate a default financial dimension value as a fixed value for each company that uses the chart of accounts. If the default financial dimension value differs, or if the user manually changes the default financial dimension value for the main account to a fixed dimension value, the financial dimension is changed to the fixed value during posting.
New framework for importing exchange rates	2012 R2	General ledger	Existing exchange rate import features that were available for various countries/regions, which include Russia and Eastern Europe, have been consolidated, and a framework for exchange rate import features is available. New providers can be added in C# or X++ and used by the framework. You can define a provider for importing currency exchange rates and periodically import those exchange rates between pairs of currencies.
Shared lists of main accounts	2012 R2	General ledger	In AX 2012 R2, the same chart of accounts can be shared across legal entities. The list of main accounts in the chart of accounts can contain various account structures, and more than one account structure can be assigned to each legal entity's ledger.
Updates to General ledger reports	2012 R2	General ledger	Reports that display amounts in the accounting currency, transaction currency, and reporting currency have been updated to display those amounts in both debit and credit columns, instead of just one column.
Configure a recurring schedule batch job to clear purchase accrual for product receipt source documents	2012 R2	General ledger	You can configure when and where to run the process for clearing purchase accrual. A recurring schedule batch job to clear purchase accrual for product receipt source documents is installed for each legal entity. You can configure the batch job to specify how many sub-batch tasks the batch job can use to process a subset of product receipt source documents that have an accounting event type of Finalized and an accounting event status of Started.
General ledger balances are updated when a process requires balances	2012 R2	General ledger	General ledger balances are no longer updated during the posting process. Instead, general ledger balances are updated whenever a process requires balances. For example, the general ledger balances are updated when you view the Trial balance list page. If you are using cubes that rely on updated general ledger balances, you must click the Update balances button in the Financial dimension sets form before you process cube data. To improve performance during balance calculations, you can schedule a batch to update balances more frequently, such as every two hours. When balances have to be calculated, only two hours' worth of data has to be calculated.
Financial reporting options	2012 R2	General ledger	A configuration key controls access to the traditional financial statement functionality and forms that are included with Microsoft Dynamics AX. The configuration key is not selected automatically in new installations of Microsoft Dynamics AX so that new users can use Management Reporter.
Delete an unposted journal that contains lines	2012 R2	General ledger	In earlier releases, you had to delete the lines first, and then you could delete an unposted journal. Now, if you delete the journal, the lines are automatically deleted.
View advanced rules for a main account	2012 R2	General ledger	You can view the advanced rules that a main account is associated with. For more information, see Main accounts - chart of accounts (form).
Display dimensions in a specified order in Management Reporter	2012 R2	General ledger	You can select the order in which financial dimensions are displayed in Management Reporter. Use the Financial dimensions used as document data sources form to specify the order.
Default dimension values follow a consistent pattern in accounting distributions	2012 R2	General ledger	Default dimension values follow a consistent pattern. For example, the default dimension values for tax for a charge use values from the distributions in the following hierarchy: Parent distribution (charge) > Grandparent distribution (extended price) > Default dimensions on the document line > Main account
Create a budget for filled or vacant positions	2012 R2	Human resources	You can identify salary and benefits for each position. You can also create budget amounts by budget cycle, account, and dimension, and import your forecast data into the budget planning tool. You can complete these changes in a temporary environment, without affecting your live data. Alternatively, you can make the changes directly to your live data. In this case, the changes become effective immediately.
Worker education enhancements	2012 R2	Human resources	You can enter additional details about worker education in the Education form. For a completed degree, you can enter the credits that were completed and the credit basis, such as semester or quarter. For a degree that is in progress, you can enter the credits that have been earned and the credits that are required. You can also enter any additional notes that are related to the worker's education, and also enter a secondary emphasis, or minor, such as Business or Economics. This information can be viewed and entered on the Employee services site, and can appear on the Worker and Applicant resume reports.
Copy existing positions, mass update positions, and block position assignments	2012 R2	Human resources	You can create individual or multiple positions by copying an existing position. You can also update multiple positions at the same time. Additionally, you can prevent positions from being assigned to workers, without having to delete the positions.
Staffing manager Role Center	2012 R2	Human resources	This Role Center has been enhanced to provide the most relevant information to the Staffing manager. This information includes the average days to recruit by department, job application sources, and the applications that each open recruiting project has received.
HR manager Role Center	2012 R2	Human resources	This Role Center has been enhanced to provide the most relevant information to the Human Resources manager. This information includes position hierarchy information, active workers by department, and injury and illness incidents by month and year.
HR training and development manager Role Center	2012 R2	Human resources	This Role Center has been enhanced to provide the most relevant information to the Training and development manager. This information includes open courses and the number of workers who have taken a particular course.
Enhancements to the benefit setup and the Benefits list page	2012 R2	Human resources	You can create new benefits and maintain benefit versions on the Benefits list page instead of in the Plan Setup form.
Changes to the forecast positions area	2012 R2	Human resources	This feature replaces and expands the existing forecast position functionality. The updates include detailed compensation estimates for new positions, "what-if?" scenarios, and integration with Microsoft Dynamics AX and third-party payroll systems.
Handling for garnishments (such as child support orders) and tax levies	2012 R2	Payroll	Set up garnishments and tax levies by using the same forms and controls that you use to set up benefits. Specify percentage-based limits and other data that is required to make sure that a garnishment or levy does not reduce a worker's net pay below the minimum that is set by federal, state, or local governments. Specify the amount or percentage of wages to deduct, and the lifetime limit for the garnishment, if applicable. You can also specify the order in which deductions are calculated and the maximum percentage of the base wages that can be deducted.
Position settings for payroll	2012 R2	Payroll	Specify the legal entity that the position is paid from, and set the typical hours that are worked per year and per pay cycle for the position. You can also select whether to generate pay based on salary or a schedule. Assign default values to positions, so that you can control the standard worker settings.
Payroll taxes	2012 R2	Payroll	Specify the legal entity that the position is paid from, and set the typical hours that are worked per year and per pay cycle for the position. You can also select whether to generate pay based on salary or a schedule. Automatically assign default values to workers' positions, so that you can control the standard worker settings.

Track pay statements that are generated as part of a group in a single payroll run	2012 R2	Payroll	Batch numbers are automatically assigned when you generate pay statements.
Create and update payroll tax groups	2012 R2	Payroll	You can now create and update groups of payroll taxes. Each tax group contains a set of payroll tax codes. You can update all the tax codes in a tax group at the same time. For example, you can change the vendor and main account for every tax code in a tax group at the same time. Tax groups can also be used in transaction posting definitions. Each tax code can be included in multiple tax groups, but a tax code can be in only one tax group that is enabled for posting definitions.
Earning codes	2012 R2	Payroll	User can now specify accounting templates and dimension values for earning codes and integrate Payroll with fixed compensation plans in Human resources.
Release earnings for payment processing	2012 R2	Payroll	Releasing earnings is a stand-alone procedure that designates the earnings as ready to be processed in a worker payment.
Improvements to Public sector Role Centers and business intelligence content	2012 R2	Public sector	The following Public sector Role Centers were updated: Accounts Receivable Administrator, Finance Director, Accounting Manager, and Accountant. You can now categorize Role Centers by the type of role: Strategic, Tactical, or Operational. The key performance indicators (KPIs) and organization performance indicators on Role Centers can now be easily modified, and can report variances and percentage of goal measurements. Chart rendering was improved, and an organization performance indicator to track the spendable balance by fund was added.
Budget analysis inquiry	2012 R2	Public sector	In Microsoft Dynamics AX 2012 R2, public sector customers can display revenues and expenditures by financial dimension, by using a combination of data from budget register entries, the general ledger, and budget control. Revised budgets, actual expenditures, encumbrances, pre-encumbrances, and a discrete breakout of carry-forward amounts are available. Detail transactions can be displayed for a selected financial dimension for each budgeted amount, such as the original budget or revisions.
Dispose of fixed assets	2012 R2	Public sector	You can now dispose of more than one fixed asset at the same time. This feature saves time and reduces the risk of errors.
Performance enhancements for Inventory close	2012 R2	Inventory and warehouse management	The performance of the Inventory close and Recalculation batch jobs has been significantly improved. The improvement is based on the following changes in the way that the batch jobs use the batch framework in Microsoft Dynamics AX: <ul style="list-style-type: none"> <li>○ The logic that is associated with batch helpers for inventory closing has been redefined, and the new logic uses parallel processing from the batch framework much more efficiently than the original logic.</li> <li>○ A new parameter has been introduced that lets you specify the maximum number of items that can be processed at the same time by an inventory closing batch helper.</li> </ul> Because of the change, the process flow is more efficient, and performance is enhanced. Additionally, insight and traceability of the current stage of the Inventory close and Recalculation jobs are improved when these jobs are run in a batch.
Trace items and raw materials in inventory, production, and sales transactions	2012 R2	Inventory and warehouse management	You can use the item tracing features to gain visibility into the source and destination of items throughout the supply chain. Manufacturers can trace raw materials and ingredients from receipt, to production, to the sale and transportation of the finished product. Item tracing can help manufacturers comply with regulatory requirements, and helps quality officers and production managers analyze and take action to address variances in the quality of materials.
Performance improvements for on-hand inventory transactions	2012 R2	Inventory and warehouse management	The On-hand entries cleanup batch job lets you delete unused entries for serialized on-hand inventory. The batch job deletes on-hand inventory entries that are assigned to a tracking dimension, that contain the value 0 (zero) for all quantities and costs, and that are marked as closed. You can also specify the length of time, in days, that the entries must be unchanged before they are deleted. Entries that are not assigned to a tracking dimension are not deleted. This feature can help improve the performance of queries for on-hand inventory.
Batch merge to combine batches in inventory	2012 R2	Inventory and warehouse management	Batch handling features make it easy to combine two or more inventory batches into a new or existing batch. The batch merge functionality can also help you manage the shelf life and vendor batch details for merged batches. When the source batches are selected, and the details for the merged batch are specified, you can review the information before you post it. You can also transfer the batch merge to an inventory journal for approval. Inventory can then be reserved or posted directly from the inventory journal. When you post a batch merge, the system creates or updates the selected destination batch, and adjusts the inventory for the source batches and the merged batch.
Role Center for costing and inventory valuation	2012 R2	Inventory and warehouse management	The cost controller's Role Center provides information about costing and inventory valuation. The Role Center includes two cues that can help cost controllers with the daily maintenance of system configurations.
The Configuration form in Product configurator is easier to extend	2012 R2	Product information management	You can request the status of inventory, inventory accuracy per item group, and inventory aging in a series of diagrams. Furthermore, a business overview can help you identify products that have low performance. To improve the extendibility of the Configure line form that is used during a configuration session in Product configurator, a new form that is based on X++ is now available as the default configuration form.
Improvements to planning tools	2012 R2	Product information management	Businesses can now select whether they want to use a configuration form that is based on the Windows Presentation Foundation, or one that is based on X++.
Improvements made to the overview of production information, approval and calculation of worker registration on projection jobs, and worker absences	2012 R2	Product information management	You can now view the relationships between actions on planned orders. You can also view relationships to orders that are already approved. This makes it easier to prioritize orders, and to focus on auto firming derived requirements. Features are introduced for setting parameters for planning to make it easier to understand how parameter settings can affect data in Microsoft Dynamics AX. When you run explosion, you can now turn on a log to record how master planning requirements are generated for a specific order. This makes it easier to identify why an order was generated in a certain way. You can run master planning again in a simulation plan, so that neither the dynamic plan nor the static plan is affected.
			Fields and controls have been added to the Edit job list form to provide shop floor supervisors with a better overview of the production information involved in production orders. The additions include an improved ability to prioritize jobs, change the resource that is assigned to a selected job, add attachments, and view information about the materials and route directly from the Edit job list form. Improvements have also been made to the features for approving and calculating worker registrations on production jobs and absence. A new Week view has been added to enable an approver to view and manage registrations for an individual worker for a full work week.

Enhanced modeling capabilities in Product configurator	2012 R2	Product information management	<p>You can set up a product configuration model so that the system will automatically reuse a configuration when a user makes selections that match the criteria for its reuse. Setting the criteria that determine whether the system will reuse a configuration starts with specifying that the component is reusable, and then selecting the attributes that a user's selections must match during a configuration session. When a user completes a configuration session, the system searches for a matching configuration. If the system locates a configuration that meets these criteria, it reuses the configuration ID and the associated BOM and route.</p> <p>You can now specify that an attribute is read-only when a user is configuring a product. This new attribute modifier has been placed together with the hide and mandatory modifiers on the Attributes FastTab.</p> <p>When mapping the fields in a table constraint to the attributes of a component, in addition to using attributes on the component itself, a user can now also use attributes from subcomponents of the component.</p> <p>Default attribute values are now considered to be of the same class as attribute values selected by a configuration user. Thus, having one or more default values in contradiction with each other or with a constraint will give an error when a configuration is tested or executed. The consequence of this is that it might be necessary to revise the default attribute values for product configuration models.</p>
Expression editor enhancements	2012 R2	Product information management	<p>The expression editor has been updated to comply with the industry standard that a product designer expects for building expressions in Microsoft Dynamics AX. The main enhancements include the following features:</p> <ul style="list-style-type: none"> <li>○ The user interface has been updated to enable you to easily build expressions using operators, attributes, and attribute values.</li> <li>○ A feedback mechanism has been created to enable you to easily identify errors when you validate the expressions that you write.</li> </ul>
Calculations in product configuration models	2012 R2	Product information management	<p>When you work with product configuration models, you can now use calculations to test the impact of different decimal numbers when you configure a product. Calculations are new concepts that complement constraints, and they include a larger set of operators than the operators that are available for constraints. A calculation consists of a target attribute and a calculation expression. The target attribute receives the result of the calculation.</p>
Determine prices using a product configuration model	2012 R2	Product information management	<p>You can now define individual prices for product options using a configuration model. Each component in a product configuration model has a base price. You can use expression rules to associate attributes with a value that affects the total price. When you configure a product and select a product option for the component, you can see how the option contributes to the total price of the product configuration model.</p>
Database split	2012 R2	General	<p>AX 2012 R2 has two databases. The business database contains transaction data and master data. The model database contains application objects, which are managed as model files. The model database replaces the application file store (AOD) that previous versions had. You can name the business database. The model database has the same name as the business database, but _model is appended. Both databases must be stored on the same instance of Microsoft SQL Server.</p>
Data partitioning	2012 R2	General	<p>AX 2012 R2 enables data isolation by using data partitions.</p>
Case management functionality is enhanced for documenting and releasing product changes to production	2012 R2	Production control	<p>The Case management functionality now provides tools for documenting changes to a product. For example, you can track component substitutions in the bill of materials of formulas, or changes in the production route. Approvals and validations can be automated, so that you can manage the release of bills of materials, routes, and formulas to production processes.</p>
Lean manufacturing	2012 R2	Production control	<p>You can modify the activity relations in the production flow versions by using the Edit activity relation form. In earlier versions of Microsoft Dynamics AX, you entered start and end constraint times for an activity relation when you created it. Afterward, you could not change the constraint times. The same restriction applied for the cycle time ratios of the activity relation, which adjust the calculation of cycle times for the activities of a production flow based on the required takt time of the production flow version.</p> <p>The material date calculation is based on the actual job schedule. When a job is sequenced in the schedule, the material date and time are recalculated based on the expected receipt date and time of the job. In Microsoft Dynamics AX 2012, the material date and time was always set to the start of the period, which caused dependent jobs to exceed their due date.</p> <p>In previous releases, when capable to promise (CTP) explosion fired a withdrawal kanban for a scheduled rule, the pegging to the required material was incorrect and the dynamic plan was inaccurate. This problem is fixed.</p> <p>You can now combine event kanbans together with CTP. The ability to move firmed orders based on CTP is limited to event kanbans, and occurs only when sales order lines are created. Further application of moving orders requires additional supply policies to ensure that planning is accurate.</p> <p>To support forward scheduling of kanban jobs based on futures dates, you can move planned kanban jobs to later periods. This capability is also useful in the kanban scheduling board, where the new Schedule from date function has been added. When you schedule jobs for a futures date, the jobs are added at the end of the planning period, and planned according to the capacity that is available on the date. As opposed to automatic planning, the schedule from date function enables you to schedule jobs past the planning fence that is defined in the production flow model.</p>
Create sequences for production	2012 R2	Production control	<p>You can use product sequencing to define one or more sequences to assign to a various item. Product sequencing provides a method to sort production into a required order so that the changeover times are automatically reduced in production.</p>
Configure an item to inherit shelf life and batch attributes from intermediate items of the finished goods	2012 R2	Production control	<p>You can configure an item to update its batch attributes and shelf life information from the ingredients of the formula that is used to produce the item. You can use shelf life inheritance to define items so that the inventory batch with the earliest shelf life dates is updated or inherited by the product characteristics of the finished items. For batch attributes, you can define attributes for both the finished items and their ingredients, and select which ingredients pass along their characteristics or attribute values to the finished items. You can also select to have co-products updated with this same shelf life and batch attributes.</p>
Define a formula, and perform batch balancing of a potency item used in production	2012 R2	Production control	<p>You can use potency management to define an item as having a specific concentration of an active ingredient, adjust the quantity of material that is required in the production of the item, calculate the amount of money that is paid to a vendor for the item, and select an ingredient type for a formula line.</p>
Designate a project cost price as an effective labor rate	2012 R2	Project management and accounting	<p>AX 2012 R2 introduces support for specifying a worker's hourly cost price on projects as an effective labor rate. The effective labor rate defines the hourly cost if the worker works all the hours in a work week. The cost price of the effective labor rate for a period is calculated by using the following formula:  <math display="block">\text{Effective labor rate price per hour} * (\text{Number of hours in the work week according to the worker's calendar} / \text{Number of hours registered in the week})</math> <p>The Project setup form now includes a Use effective labor rate check box. If this check box is selected, you can mark a worker's hourly price in the Cost price - hour form as an effective labor rate.</p> </p>
Select a value model for estimate eliminations	2012 R2	Project management and accounting	<p>For investment projects, in the Estimate form, you can now select the value model that is applied when the value from an estimate project is eliminated to a fixed asset.</p>

Improved support for project estimates and revenue recognition	2012 R2	Project management and accounting	<p>In earlier versions of Microsoft Dynamics AX, a project manager who wanted an estimate project to be created to support a Fixed-price project or an Investment project had to remember to select the New estimate project check box in the Create project form. Otherwise, use of the estimate system to recognize revenue was not fully supported.</p> <p>In AX 2012 R2, an estimate project is created automatically when the project manager creates a Fixed-price project or Investment project. As part of this change, cost templates and period codes no longer have to be assigned to each project individually, but can be assigned to project groups instead. This change supports the more common practice of using the same cost template and estimate period for most or all Fixed-price projects and Investment projects. This change also reflects the fact that other accrual and revenue recognition options are set up in project groups.</p>
Consumption of project items on product receipt, even if there is no item requirement	2012 R2	Project management and accounting	<p>In AX 2012, if an item was added to the purchase order for a project but was not preceded by an item requirement, the item could not be consumed and invoiced to the project contract's funding source until the related vendor invoice was posted. In AX 2012 R2, project items can be immediately consumed and invoiced to the project's contract funding source, before the vendor invoice for the purchase order is posted, even if an item requirement does not precede the purchase order.</p>
Reservation of funds in a project contract	2012 R2	Project management and accounting	<p>The funding limits in the project contract can now be used to track revenue that has not yet been posted as commitments. This functionality allows for more realistic limit checks, because the commitments are considered while the remaining available funds in a limit are computed. This tracking of commitments on a limit is available to all the source documents that have project functionality.</p>
Reverse an hour transaction for a project	2012 R2	Project management and accounting	<p>You can set up a reversing entry for hours that are posted to a project, and you can also specify the date on which the reversing entry is automatically posted. Previously, you could post a reversing entry only on the date on which you created the reversing entry.</p>
Generate project budget revenue amounts from budget cost amounts for a project	2012 R2	Project management and accounting	<p>After you enter cost amounts in a project budget, you can automatically generate the related revenue amounts in the project budget. One revenue line is added for each cost line.</p>
New Integration Solution for Microsoft Dynamics AX projects and Microsoft Dynamics CRM	2012 R2	Project management and accounting	<p>The Integration Solution for Microsoft Dynamics AX projects and Microsoft Dynamics CRM is built on Connector for Microsoft Dynamics. This solution enables the integration and synchronization of project quotations and projects between Microsoft Dynamics AX and Microsoft Dynamics CRM.</p>
Intercompany pro forma invoices for project costs	2012 R2	Project management and accounting	<p>You can create an intercompany pro forma invoice for items and services that are sent from one legal entity to another legal entity in your organization. You can specify the value and currency to use for the transferred costs.</p>
Create a WBS template for Microsoft Dynamics AX by using Microsoft Project	2012 R2	Project management and accounting	<p>You can create a WBS template in Microsoft Project that can be used in AX 2012. This template can be made available to selected companies in AX 2012, and can be used for both quotations and projects. In addition, because the template is based on a linked MPP file, information types that are used in Microsoft Project but not in AX 2012, such as types of resources that are required (material, work, and so on), are retained and maintained in Microsoft Project.</p>
Use Microsoft Project to create or update the work breakdown structure (WBS) for a Microsoft Dynamics AX project quotation	2012 R2	Project management and accounting	<p>You can now use the Microsoft Project client to create and update the WBS of a project quotation from AX 2012. You can also save the WBS for the quotation, in a Microsoft Project MPP file, in a SharePoint site.</p>
Use Microsoft Project to create or update a Microsoft Dynamics AX project plan, and integrate with an Office 365 SharePoint project site	2012 R2	Project management and accounting	<p>You can use Microsoft Project and AX 2012 to manage a project that was created in either program, and changes can be synchronized between the two programs. This integration lets you assign workers from AX 2012 to tasks in Microsoft Project, and to associate tasks in Microsoft Project with project categories in AX 2012.</p>
Post store transactions from statements based on the end of the business day instead of the calendar day	2012 R2	Retail	<p>This feature adds an option for posting end-of-day statements for stores that have extended business hours. You can now calculate end-of-day transactions for statement processing based on the time that the store closes. However, in earlier releases, you could only post the statement based on the calendar day. If your store operating hours extended past 12:00 AM, two sales orders are created when you posted the statement. One sales order was created for sales transactions that occurred before 12:00 AM, and the other sales order was created for the transactions that occurred between 12:00 AM and the end of the business day.</p> <p>This feature lets you configure your statement posting process so that you can post the statements based on the end of the business day instead of the end of the calendar day.</p>
You can use a new statement method to calculate statements by shift	2012 R2	Retail	<p>This feature adds a statement method so that stores can calculate statements by shift. When this option is selected for the store and the statement is generated, the transaction lines are summarized by payment method and shift. The summarized transaction lines are displayed in the Statements form, and the shifts are listed for each line. You can also select the Split by Statement method on the Statement/closing FastTab in the Stores form to generate a separate statement for each shift.</p>
Passwords can now be changed and reset in Retail POS	2012 R2	Retail	<p>In Retail POS, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>○ A cashier can change his or her password.</li> <li>○ A cashier can have his or her password reset. For example, a cashier might forget his or her password.</li> </ul>
Cashiers can view additional customer account information in Retail POS	2012 R2	Retail	<p>In Retail POS, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>○ Cashiers can view customer account balances.</li> <li>○ Cashiers can view invoice accounts, if invoice accounts are present.</li> </ul>
Group attributes and attribute groups, and apply them to products and categories in a catalog	2012 R2	Retail	<p>This feature lets users enhance their retail catalog offerings by including attributes for products in the catalog. You can create attribute groups for a set of defined attributes, and add the attribute groups to a catalog navigation category or a retail channel. Retail supports system properties and attributes, user-defined attributes, and rich media attributes, such as videos, images, or HTML text.</p>
Upgrade to global store and staff IDs	2012 R2	Retail	<p>The values for store and staff IDs are now stored in global variables. Global variables are unique across all companies in a partition. Tasks have been added to the Preprocessing data checklist to resolve this schema change from Microsoft Dynamics AX 2009 for Retail.</p> <p>Customer orders and order fulfillment have been expanded to include the following scenarios:</p> <ul style="list-style-type: none"> <li>○ An order is created online and picked up in a store.</li> <li>○ An order is created online and shipped.</li> <li>○ An order is created in a store and picked up in a store.</li> <li>○ An order is created in a store and shipped.</li> </ul> <p>These orders are fulfilled in Microsoft Dynamics AX, and customers can be notified via email during various stages of order fulfillment.</p>
Fulfill online retail orders in Microsoft Dynamics AX	2012 R2	Retail	

Support catalog management for the Retail module	2012 R2	Retail	<p>The Retail module now uses the catalog management feature that was introduced in Microsoft Dynamics AX. You can create one or more retail catalogs. Each catalog includes navigational categories, and each navigational category can include one or more product offerings that are assigned to a product assortment. Each offering can be enhanced by attributes that are included for the products at either the category level or the product level. You can assign the catalog to one or more retail channels.</p> <p>After a catalog is validated, reviewed, approved, and finally published, the catalog products are displayed as listings on the channels that the catalog is assigned to. Any changes to the catalog products can be reflected in the channels.</p>
Customer-facing device support	2012 R2	Retail	<p>Changes to the POS and EFT (electronic funds transfer) plug-in provide out-of-box support for customer-facing devices in the US. The changes also support partner plug-ins that give partners a head start in developing their own solutions for this kind of device.</p>
Time clock	2012 R2	Retail	<p>A time clock can be used to keep track of time and attendance for retail store employees. This feature consists of a time clock in Retail POS, manager viewing capability in Retail POS, and record keeping in Microsoft Dynamics AX.</p>
Customer orders from online stores	2012 R2	Retail	<p>Customer orders in the Retail module of Microsoft Dynamics AX and in Retail POS have been enhanced to support online stores. Orders that customers create in an online store can be shipped to the customers or picked up in brick-and-mortar stores. Email notifications are sent during the sales and shipping processes. Enhancements have also been made to the recall order and order list features.</p>
Online marketplaces	2012 R2	Retail	<p>Retailers can now set up and configure an online marketplace as a retail channel directly in Microsoft Dynamics AX. (Previously, this functionality was offered only on the web in Commerce Services.) Retailers can use online marketplaces to easily sell products online through established marketplaces, such as eBay and Amazon.com. Catalogs and product listings are centrally managed, and sales orders flow seamlessly back into Microsoft Dynamics AX for processing.</p>
Component names have changed	2012 R2	Retail	<p>Retail Store Connect is now Commerce Data Exchange: Synch Service. Retail Transaction Service is now Commerce Data Exchange: Real-time Service.</p>
Retail reporting enhancements	2012 R2	Retail	<p>AX 2012 R2 includes a new dedicated Retail cube that provides business intelligence data to help retailers make business decisions. You can customize the new Retail cube by adding data sources, measures, dimensions, calculations, key performance indicators (KPIs), and so on. You can also define your own reports by using Microsoft SQL Server Reporting Services or Microsoft Excel.</p>
Manually enter a coupon code for discount offers	2012 R2	Retail	<p>This feature lets you manually enter a discount code for discount offers without having to create a campaign. Discount codes can be applied to both brick-and-mortar stores and online stores. If you create a discount code for a campaign and enter the discount code manually, the system does not use number sequences and bar codes to automatically generate the code. Instead, the system uses the manual code.</p>
Update the name of a party from the party record	2012 R2	Sales and marketing	<p>You can update the name of a party record in the party record's form or in the role form of the party record. For example, you can update the name of a customer from either the Party form or the Customer form.</p>
Generate a lead or opportunity record from a campaign or call list target record	2012 R2	Sales and marketing	<p>You can generate a lead or opportunity record directly from the target record list of a campaign or call list. The campaign or call list information that is relevant to the new lead or opportunity record is automatically included in the new record.</p>
Cases are secured by case category	2012 R2	Sales and marketing	<p>You can grant permission to view and update cases, based on the case category type and the user's security role.</p>
Preserve a reservation for a partial quantity of an item	2012 R2	Sales and marketing	<p>When you process a sales order and create a purchase order because of insufficient stock of an item, any existing reservation for a partial quantity is preserved. Previously, the existing reservation was canceled if you processed a sales order by reserving the available stock of an item and then, before materials requirement planning (MRP) was run, created a purchase order for an additional quantity that was required to complete the order.</p>
Cancel all lines on a sales order	2012 R2	Sales and marketing	<p>You can cancel all order lines on a sales order in a single step. Previously, you had to cancel each order line on a sales order individually.</p> <p>You can also select multiple sales orders and cancel all the order lines for those sales orders. If some order lines that you select were already delivered, you receive a message that states that the order lines have already been delivered and cannot be canceled.</p>
Validate and post trade agreement journals more efficiently	2012 R2	Sales and marketing	<p>For this feature, a Cancel button was added in the Maintain group on the Action Pane on the Sales order tab in the All sales orders form.</p> <p>You can update multiple sales prices and apply them to the related trade agreements. In cumulative update 6, you can validate and post changes to trade agreements in batches. This feature lets you control the timing and frequency of validation and posting to best suit your business.</p>
Calculate the sales price of an item by using an attribute-based pricing formula	2012 R2	Sales and marketing	<p>You can now calculate the sales price of an inventory item by using an attribute-based pricing formula. An attribute-based pricing identifier can be associated with a trade agreement for a specific batch of items. When a sales order that uses the trade agreement is invoiced, the net amount is adjusted according to the attribute values that are registered for the inventory batches that are received or produced.</p>
New purchasing policy: Price/discount transfer	2012 R2	Procurement and sourcing	<p>You can use the new purchasing policy, Price/discount transfer, to control how prices are applied to purchase orders that are created from purchase requisitions for catalog items. Prices and discounts for catalog items can be calculated based on trade agreements, or they can be transferred directly from the purchase requisitions, depending on the requirements of your business. If you create a Price/discount transfer policy, users can override the policy on the purchase requisition line.</p>
Financial dimensions can be specified on sales agreements or purchase agreements	2012 R2	Procurement and sourcing	<p>You can now specify financial dimensions on sales agreements or purchase agreements. Dimensions can be added to the document headers or to individual lines. The financial dimensions of a sales or purchase order agreement are copied to the header of a sales or purchase order that refers to the agreement. The dimensions are then copied to the sales or purchase order lines when the agreement is referenced by the order lines.</p>
A Totals FactBox is added to the Purchase orders list page	2012 R2	Procurement and sourcing	<p>The Purchase orders list page now has a FactBox that lists information such as the total amount, charges, and discounts for all purchase orders. The information is the same as the information that is available in the Totals form for purchase orders. The values that are displayed in the FactBox are not automatically updated if you make a change to a purchase order. To update the values, click the Refresh button, or open the Totals form. The data is also updated when you confirm a purchase order.</p>
Integration of sales agreements and return orders	2012 R2	Procurement and sourcing	<p>In AX 2012 R2, the sales return order line can be associated with the sales agreement line that is related to the order.</p>
Potency management	2012 R2	Process manufacturing production and logistics	<p>When you define an item, you can indicate that the item must have a specific concentration of an active ingredient. You can also adjust the quantity of material that is required in the production of the item, calculate the amount of money that is paid to a vendor for the item, and select an ingredient type for a formula line.</p>
Batch balancing for potency formulas	2012 R2	Process manufacturing production and logistics	<p>You can add the actual value of a base inventory batch attribute to the registered inventory batch of a purchase order.</p>

Purchase pricing based on actual potency	2012 R2	Process manufacturing production and logistics	You can set up a pricing formula for potency items that is based on batch attributes. You can also define specific items that can be invoiced, based on the actual potency of the material that is received.
Lot inheritance	2012 R2	Process manufacturing production and logistics	You can configure an item so that its batch attributes and shelf life information are updated based on the ingredients of the formula that is used to produce the item. You can use shelf life inheritance to define items. This means that the inventory batch with the earliest shelf life dates is updated or inherited by the product characteristics of the finished items. For batch attributes, you can define attributes for both the finished items and their ingredients, and select which ingredients pass along their characteristics or attribute values to the finished items. You can also select to have co-products updated with the same shelf life and batch attributes.
Batch order sequencing	2012 R2	Process manufacturing production and logistics	You can use product sequencing to define one or more sequences that are assigned to various items. Product sequencing means you can sort production into a required order, so that changeover times are automatically reduced in production.
Determine prices using a product configuration model	2013 R2	Product information management	You can now define individual prices for product options using a configuration model. Each component in a product configuration model has a base price. You can use expression rules to associate attributes with a value that affects the total price. When you configure a product and select a product option for the component, you can see how the option contributes to the total price of the product configuration model.

