Microsoft® Dynamics® AX 2012

New, Changed, and Deprecated Features for Microsoft Dynamics AX 2012

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Disclaimer: This document provides a summary of the product-wide features that will be implemented in Microsoft Dynamics AX 2012. Familiarity with Microsoft Dynamics AX or other business management software is assumed.

The information in this document is subject to change without notice.

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Introduction

This document provides a summary of new and changed features that are planned to be implemented in Microsoft Dynamics® AX 2012. It also provides deprecated feature notices for features that are planned to be removed in Microsoft Dynamics AX 2012 or future versions. Familiarity with Microsoft Dynamics AX or other business management software is assumed.

Abstract

Microsoft Dynamics AX 2012 introduces many new features and technologies that were not available in previous versions. Additionally, changes introduced in Microsoft Dynamics AX 2012 update a number of existing features and technologies significantly to help increase system security, user productivity, and reduce administrative overhead. This document describes new and changed features for Microsoft Dynamics AX 2012. It also includes deprecated feature notices for features that are planned to be removed in Microsoft Dynamics AX 2012 or future versions.

Document structure

The document includes the following sections:

Introduction

The introduction provides an overview of the document.

Product-wide features

Topics in the product-wide features section describe application changes that have a broad impact across Microsoft Dynamics AX 2012. These topics compare, contrast, and explain the differences in the behavior in Microsoft Dynamics AX 2009 and Microsoft Dynamics AX 2012

Deprecated features

Topics in the deprecated features section provide details about the features that have been removed from the application in this version, or that are planned for removal in subsequent versions.

Appendix

The appendix provides summary information, in tabular format, about feature changes that do not have a product-wide effect.

Feedback

Send comments about the content of this document to the Microsoft Dynamics AX Content Publishing Team: adocs@microsoft.com

More information

For more information about Microsoft Dynamics AX 2012, see:

- TechNet Library for System administrators
- AX Developer Center on MSDN
- TechNet Library for Application Users

You can also use the WebSearch tool to search Microsoft Dynamics AX 2012 content.

Product-wide features

Product-wide features are features that, although they may be focused in a particular feature area, have an overall effect on Microsoft Dynamics AX 2012. A product-wide feature may be an existing feature that has been reworked substantially since Microsoft Dynamics AX 2009, or it may be a new feature or set of features that has been added to the existing functionality in Microsoft Dynamics AX. In some cases, a product-wide feature replaces an existing set of features.

Database changes: Table relations

In Microsoft Dynamics AX 2009, table relations could be defined through extended data types (EDTs). In Microsoft Dynamics AX 2012, table relations are defined under the Relations node for each table in the Application Object Tree (AOT). Each relation has properties that can be set in the Properties window.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Technical decision makers Independent software vendors (ISVs)/developers Partners

New functionality

The new format enables rich metadata to be stored about each table relation. The metadata can be leveraged throughout the application for increased functionality. For example:

- In Microsoft Dynamics AX 2012, the system stores the cardinality of each relationship. Tools that generate database entity relationship diagrams in Microsoft® Visio® 2010 can read the cardinality data to draw the diagram correctly.
- The new UnitOfWork class simplifies transaction management for table relations that are defined under the Relations node for a table. However, the UnitOfWork class cannot leverage relations that are defined through EDTs.

Special considerations

- In Microsoft Dynamics AX 2012, table relations can no longer be created through EDTs.
- Legacy custom table relations that were defined through EDTs continue to work in Microsoft Dynamics AX 2012.

Comparison with Dynamics AX 2009

Table relations are defined in a new way in Microsoft Dynamics AX 2012.

AOT table relations

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define a table relation by using the AOT.	Table relations were defined only through EDTs. This was a problem if multiple relations were needed between tables, or if relations involved composite keys.	EDT table relations are recognized, but relations are now defined under the Relations node for an individual table.	Relationship metadata can be stored, which facilitates other system features and future growth.
Automatically migrate table relations to the AOT.	Not available	A tool is provided to convert legacy table relations from EDT nodes to table nodes in the AOT.	This automation saves the developer time and reduces the likelihood of errors.

More information

For more information about table relations, see the EDT Relations Migration Tool topic on MSDN.

Database changes: Table inheritance

Object-oriented programming languages, such as C# and C++, support inheritance relationships between classes. A derived class inherits fields and methods from its base class. Microsoft Dynamics AX 2012 supports similar inheritance between tables in the Application Object Tree (AOT).

Overview

Item	Description
Required	Yes
Feature areas affected	All, particularly those that query tables that are involved in inheritance relationships
Stakeholders	Technical decision makers ISVs/developers Partners

New functionality

Table inheritance facilitates customized extensions better than traditional foreign key relationships do.

Table inheritance provides a rich type of metadata that describes the relationships between tables. Tools can use this metadata to provide better functionality.

Special considerations

The following are some of the base tables that are involved in inheritance relationships:

- AgreementHeader
- AgreementLine
- BankLC
- BankLCLine
- CaseDetailBase
- CatProductReference
- DirPartyTable
- EcoResProduct
- HRPDefaultLimit
- IntercompanyActionPolicy
- VendRequest

Because of inheritance relationships between tables, some fields in Microsoft Dynamics AX 2009 have been moved to different tables in Microsoft Dynamics AX 2012. Some legacy custom queries may need to be updated. This requires the same amount of pre-upgrade work as any table schema change. In some cases, the size of an X++ SQL Select statement can decrease, and the statement can become simpler.

Comparison with Dynamics AX 2009

The application data framework has changed since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- AOT design time aspects
- Query development aspects

AOT design time aspects

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Capture rich metadata about the relationships between tables.	Foreign key relationships were supported. Inheritance relationships between tables could be managed only by custom code.	Inheritance relationships between tables can be captured and described by setting properties on the tables.	Developers can more fully express the relationships between certain entities.

Query development aspects

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Access fields from various tables with simpler code.	A query could leverage a foreign key relationship to get fields from a parent table by joining.	A query can leverage an inheritance relationship to get fields from a parent table without joining.	X++ SQL code and AOT queries take less developer time to create and maintain.

Database changes: Inactive tables remain

Sometimes, deactivating a configuration key it affects a table in Microsoft Dynamics AX. In Microsoft Dynamics AX 2009 and earlier versions, the associated table was removed from the underlying Microsoft® SQL Server® database. Subsequently, when queries were run on that table, messages were displayed.

In Microsoft Dynamics AX 2012, the associated tables are not removed from the database. Instead, the tables are deactivated in the system, which means that they are treated as empty tables. However, the deactivated tables and their data are still fully available in the underlying database.

Overview

Item	Description
Required	Yes
Feature areas affected	All, particularly operations that issue SQL queries from outside of Microsoft Dynamics AX
Stakeholders	Technical decision makers ISVs/developers Partners

New functionality

Tables that are deactivated by a configuration key now remain available to external SQL queries, which can be a practical benefit, depending on the ongoing data changes that must be made to the tables.

Special considerations

System administrators who deactivate a configuration key must inform users who issue external SQL queries that the data in the deactivated tables will no longer be updated, and that the data in those tables will become outdated. After a configuration key has been deactivated, messages are no longer displayed for external SQL queries.

Comparison with Dynamics AX 2009

The effects of deactivated configuration keys on tables have changed since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- SQL queries on inactive tables

SQL server queries on inactive tables

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Run queries on inactive tables within Microsoft Dynamics AX.	Queries failed, and messages were displayed.	Queries on inactive tables continue to function, but data in the inactive tables is ignored.	Queries on the SQL tables still function.
Run external queries on tables from Microsoft Dynamics AX.	Queries failed, and messages were displayed.	Queries on inactive tables continue to function, but data from the inactive tables will be outdated.	Queries on the SQL server database still function.

Commerce Services for Microsoft Dynamics ERP

Commerce Services for Microsoft Dynamics® ERP provides integration between Microsoft Dynamics AX 2012 and an organization's online sales channels. It provides an integrated process for releasing products to online stores or online marketplaces and routing online sales orders back in to the existing Microsoft Dynamics AX fulfillment process. Additionally, companies can use Commerce Services to integrate their existing online sales channel to Microsoft Dynamics AX 2012.

Overview

Item	Description
Required	Optional. You may or may not use these features, depending on how you run your business.
Feature areas affected	Sales and marketing Product information management
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Improvements have been made to further integrate Commerce Services with Microsoft Dynamics AX 2012. Previously, Commerce Services was installed only as part of Retail Headquarters in Microsoft Dynamics AX 2009 for Retail.

Comparison with Dynamics AX 2009

Changes to Microsoft Dynamics AX 2012 support the following:

- Commerce Services integration

Commerce services integration

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use Commerce Services for Microsoft Dynamics ERP to integrate Microsoft Dynamics AX with your online sales channels.	Commerce Services was only available within the Retail Headquarters application for Microsoft Dynamics AX 2009 for Retail.	Provides integrated process for releasing products to online stores and routing online sales orders into the fulfillment process.	Provides tighter integration between online stores and the Microsoft Dynamics AX fulfillment process.

Sites Services for Microsoft Dynamics ERP

Sites Services for Microsoft Dynamics® ERP extends Microsoft Dynamics AX 2012 business processes and workflows on the web. It is an important part of Microsoft Dynamics ERP Software plus Services strategy. It empowers business users to collaborate with their customers and vendors with no or minimal IT investment and it enables partners to build advanced software plus services solutions.

Overview

Item	Description
Required	Optional. You may or may not use these features, depending on how you run your business.
Feature areas affected	Home Accounts payable Accounts receivable Human resources Procurement and sourcing Product information management Sales and marketing Service management Organization administration
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Sites Services for Microsoft Dynamics ERP delivers an extensible metadata-driven bidirectional secure data platform connecting Dynamics AX 2012 and Microsoft cloud services. It also leverages the Sites Services metadata-driven presentation platform to ship four out-of-box sites solutions for focused industry verticals.

Comparison with Dynamics AX 2009

Microsoft Dynamics AX 2012 has changes that support:

- Site Services for Microsoft Dynamics ERP integration

Sites Services integration

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use the Site Services data platform to connect Microsoft Dynamics AX 2012 to Microsoft cloud services.		Provides a secure data platform and four out-of-the-box sites solutions for specific industry verticals.	Provides users the ability to connect Microsoft Dynamics AX to Microsoft cloud services.

Payment Services for Microsoft Dynamics ERP

Payment Services for Microsoft Dynamics® ERP is a Payment Card Industry (PCI) certified Level 1 Payment Gateway. It is an important part of Microsoft Dynamics ERP Software plus Services strategy. It enables accepting payment cards in Microsoft Dynamics AX 2012—and in your store—by using Microsoft cloud services.

Overview

Item	Description
Required	Optional. You may or may not use these features, depending on how you run your business.
Feature areas affected	Accounts receivable
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Microsoft Dynamics AX 2012 has out-of-box support for payment card authorization, settlement, void, and refunds; address verification; and business card Level 2 and 3 processing through Payment Services.

Comparison with Dynamics AX 2009

Microsoft Dynamics AX 2012 has changes that support:

- Payment Services integration

Payment services integration

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use Payment Services to accept credit card payments.	Supports credit card authorization and settlement.	Supports additional features, such as refunds, address verification, Level 2 and 3 processing, and online orders payment settlement.	These features can reduce payment processing expenses, increase profit margin, and help to positively impact a customer's bottom line.

User interface changes

The user interface consists of features and commands that a user can use to interact with the software, especially to enter and view data and personalize forms. The user interface has changed considerably since Microsoft Dynamics AX 2009.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers ISVs/developers Partners

New functionality

The user interface for Microsoft Dynamics AX 2012 is cleaner, more consistent, and easily tailored to specific tasks and forms. You can view important information on one central list page, and related information is displayed on FastTabs and in FactBoxes, even if the related information is not displayed in the current form. It is easier to sort and personalize displayed data.

Comparison with Dynamics AX 2009

The user interface has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Navigation
- List pages
- Filter functionality
- Progressive disclosure forms
- Forms
- Search

Navigation

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Navigate intuitively.	The navigation structure was divided into modules.	The navigation structure is divided into different modules that have a more consistent design.	It is easier to access the necessary forms and complete tasks.

List pages

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use the improved Action Pane.	The Action Pane was almost exclusively navigation-based.	The Action Pane now has action buttons that the user can use to create and modify data without leaving the list page.	Users can quickly find and modify data.
View additional information about a selected record on a list page, without leaving the list page.	Limited information about the selected record was displayed in the preview pane.	Information about the selected record is displayed both in FactBoxes and in the preview pane.	Users can view additional important information about a record without opening the master record form.
View messages in a dedicated area.	Messages appeared in the InfoLog form or in separate dialog boxes.	All messages related to the list page, such as error, warning, and system status messages, are displayed in a dedicated area.	Users can view and act on important messages without leaving the form.
Automatically refresh form information.	Data had to be refreshed manually, and forms did not always display the latest information.	Data is refreshed automatically.	The information on list pages is always current.
View related information in a FactBox.	Users had to leave the list page or form to view important related information about the selected record.	Users do not have to open another form to view any related information that is not displayed on the current list page.	Related information is displayed quickly.

Filter functionality

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Sort and filter on any column that is displayed.	Users could not sort or filter all of the columns displayed on the list pages.	Users can sort and filter on any column that is displayed, or filter across all columns that are displayed.	It is easier to sort data.
Filter data by using common language.	The Advanced filter window was complex and difficult to use.	Filtering control uses plain language and structure to simplify filtering requests.	It is easier to sort data.
Filter across all columns.	To filter data, users had to identify the column where data was located.	Data is filtered, regardless of the column it is located in.	It is faster and easier to find data.

Forms

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
View detailed information on FastTabs.	All information was visible at all times, which cluttered the workspace.	Users can view or condense important information in the same form.	The workspace is simplified, and related information is grouped.
Take advantage of the improved menu appearance.	Some menus were not easily readable, or they lacked common actions.	Menus are consistent and easy to scan. Menu commands are grouped according to usage.	Menu commands for data entry are simplified.
Switch between the header view and line view in complex forms.	Header information was displayed at the top of the form, and line information was displayed at the bottom of the form.	Complex forms have a header view, where you can view or modify the header-specific fields, and a lines view, where you can view the list of lines and information about the selected line.	Forms with header and line information are easier to understand and use.
View related information in a FactBox.	Users had to open additional forms to view related information about the selected record.	Related information that is not displayed in the current form can be accessed quickly, without opening another form.	Related information is displayed quickly.

Search

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use enhanced search capabilities.	Search did not include metadata and documents attached to records.	Search includes data, metadata, and documents attached to records. Therefore, users can search the data by using common nouns, such as “customer” or “cash flow report,” or they can search for specific data, such as a customer name, product ID, or telephone number.	Search is easier and more efficient.
Use the improved search box.	The search box was located on a form that was difficult to locate. Users could not refine their queries.	The search box is a prominent element of the user interface. Users have several options to help them refine their queries.	Users can locate the search box quickly and refine their queries, which improves search efficiency.

Upgrade

Microsoft Dynamics AX has several features to help customers and partners prepare for upgrades to the next version of Microsoft Dynamics AX. These features are designed to shorten the upgrade test cycle and reduce the overall cost of upgrading.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Several tools have been provided to ease the process of upgrading to Microsoft Dynamics AX 2012. The Upgrade advisor tool examines Microsoft Dynamics AX for issues that can prevent you from upgrading, or that can prevent Microsoft Dynamics AX applications from working properly after an upgrade. After issues are identified, they can be debugged by using improved upgrade script implementation tools. After the upgrade, data validation processes provide detailed testing information to reduce the number of test runs needed before Microsoft Dynamics AX is fully implemented.

Comparison with Dynamics AX 2009

The upgrade process has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Upgrade advisor
- Upgrade framework
- Post-upgrade data validation

Upgrade advisor

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Identify upgrade issues before upgrading.		Installed components from earlier versions of Microsoft Dynamics AX are analyzed for issues that may cause the upgrade process to fail.	The upgrade compatibility of files and processes is checked before users upgrade to Microsoft Dynamics AX 2012.
Run the Upgrade Advisor Analysis Wizard.		Users are guided through the analysis process.	Upgrade issues are identified.
View a list of upgrade issues.		A report is generated that displays the results of the upgrade analysis and that tracks upgrade issues and their resolution. This report is useful both before and after an upgrade.	Upgrade issues are displayed before problems arise.
Fix identified upgrade issues.		Upgrade issues within the upgrade documentation are searched for.	Users can quickly fix issues after they have been identified.

Upgrade framework

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Implement upgrade scripts by using method attributes.	Users had to provide long lines of code to specify the order and dependency of upgrade script operation.	X++ attributes and predefined upgrade scripts are used.	The coding of upgrade scripts is simplified, and bugs are reduced.
Analyze dependencies between upgrade scripts.	Users had to create tools by using upgrade scripts. This required extensive analysis and iteration for data entry, and it was time-consuming and prone to errors.	Automated tools are created to analyze upgrade scripts.	Upgrade script dependency is optimized.
Use a wizard to implement upgrade scripts.	Users had to understand the definition and use of various application programming interfaces (APIs) to implement upgrade scripts.	All scripts related to a particular table are displayed. Developers can use a wizard or template to automatically add an upgrade script for a table.	Upgrade script development is intuitive.
Use method attributes to debug and fix problems.	Parameters and the type of script were separated from the script body, making it difficult to debug and understand the logic of the script.	An attribute-based model that clarifies script logic is used.	It is easier to debug and fix problems.

Post-upgrade data validation

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Validate data for correctness after an upgrade.	No test scripts were provided. Users had to rely on their own set of testing for validation.	Test case tools are provided to do post-upgrade data validation.	Post-upgrade data validation process is standardized.
Organize and filter test cases.	Not a standard feature.	Test cases can be organized and filtered based on modules, configuration keys, and feature categories.	Better coverage and direction for testing data are provided.
View and annotate test case status.	Not a standard feature.	Test case statuses can be annotated for priority or for completion progress, such as: • Not started • In-progress • Failed • Passed	Users can monitor the progress of upgrade validation.

More information

For more information about upgrade, see:

- Implementation Planning Guide
- Upgrade Guide
- Code Upgrade Overview white paper

Services and Application Integration Framework (AIF)

In Microsoft Dynamics AX 2012, services provide a first-class programming model for integration and enable the Microsoft Dynamics AX application to expose its functionality by means of Windows Communication Foundation-based services.

Application Integration Framework (AIF), built on top of services, supports the processing of incoming and outgoing messages, such as message transforms and value look-ups. Together, services and AIF provide the programming model, tools, and infrastructure support for message-based integration of application functionality and data with Microsoft Dynamics AX.

Overview

Item	Description
Required	Conditionally required. If you are using this feature in a previous version, significant changes have been made to it, and you must review this topic.
Feature areas affected	All
Stakeholders	Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Microsoft Dynamics AX 2012 introduces integration ports for streamlined configuration of services and provides significant improvements in the areas of the programming model, deployment, and administration.

Special considerations

The following are the skills and expertise needed to fully take advantage of services and AIF:

- Internet Information Services (IIS) administration, if IIS-based Web services are deployed
- The Microsoft .NET Framework, especially Windows Communication Foundation (WCF)
- Integration concepts, such as enterprise application integration (EAI), business-to-business (B2B), and synchronous and asynchronous transports
- Microsoft .NET Framework 4.0 and ASP.NET, if you deploy IIS-based Web services
- Microsoft Message Queuing (MSMQ), if used

Some of the Microsoft Dynamics AX components, such as Enterprise Portal for Microsoft Dynamics AX and Workflow, consume Microsoft Dynamics AX services. Some functionality, such as importing catalogs and sending documents electronically, consumes Microsoft Dynamics AX services. You can install Web services on IIS. However, this is an optional step. By default, the Application Object Server (AOS) is the services host for the Microsoft Dynamics AX services.

Comparison with Dynamics AX 2009

Services have changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Simplified administration and configuration
- Services and Application Integration Framework
- Deployment
- Security and privacy
- Services troubleshooting
- Web services
- Microsoft Excel integration
- Import and export data

Simplified administration and configuration

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Import and export data in non-XML formats.	Not supported	Developers can create custom transformations to import non-XML data and transform it into a format that can be consumed by AIF document services. Developers can use XSLT to transform XML files or a .NET binary to transform non-XML files to the Microsoft Dynamics AX format.	Importing data from external systems is simplified.
Use integration ports to administer services.	AIF endpoints and related configuration forms were used to administer services.	Integration ports are used to administer services and AIF through service groups.	The administration of services and AIF is simplified. The concept of integration ports subsumes endpoints and related forms.
Use integration port functionality to restrict service calls to a specific port.	Configuration was company specific.	The integration port for a specific legal entity can be restricted, but a unique integration for each organization is not needed.	Service configuration is simplified.
Optionally configure data policies.	Data policies were mandatory.	Data policies are optional.	Endpoint configuration is simplified.

Services and Application Integration Framework (AIF)

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use system services to retrieve system information.	Not supported	The metadata service retrieves metadata for application objects, such as labels, menus, tables, and services. You can use the query service to query for data without using the document service or creating a custom service.	You can query the Microsoft Dynamics AX system and return datasets and metadata.
Use the Windows Communication Foundation (WCF) adapter.	WCF support was limited.	WCF support is expanded. MSMQ and BizTalk adapters have been deprecated, because equivalent functionality is provided by native WCF functionality.	You can use standard adapters to interface with the database.
Add Simple Object Access Protocol (SOAP) headers when calling a service.	SOAP header support was limited.	SOAP headers have been extended to support additional important headers.	It is easier to pass data into a service.
Interface with the database more easily.	Some database features were not supported.	Additional database features are supported, including: • Organization model • Table inheritance • Tables with effective dates • Surrogate foreign key expansion	It is easier to integrate the database with document services and query services.
Group related services.	Grouping related services was not supported.	You can use service grouping in the AOT to group related services.	It is easier to use and deploy services for specific integration scenarios, such as orders to cash or procure to pay.
Use X++ container types and strongly typed X++collections.	Not supported	The new programming model enables developers to use X++ container types and strongly typed X++ collections through data contracts.	Developer productivity is improved.
Use the business operations framework.	The business operations framework was supported through RunBase classes, where the user interface, contracts, and operations were defined in the same class.	The framework supports the separation of the user interface, contracts, and operations. The framework enables business operations to run synchronously or asynchronously, and	Developers have more flexibility and control.

		provides various methods for invoking business operations.	

Deployment

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Host WCF services on AOS.	Web services had to be deployed on IIS.	Hosted services on AOS are available to users and applications on the Intranet.	Deployment of services is simplified.
Deploy services on IIS.	The IIS server processed the service request.	The IIS server routes all service requests to AOS, where they are processed.	Processing on IIS servers is reduced, and efficiency is increased.
Use a single Web Service Definition Language (WSDL) for all document services, including custom services.	A separate WSDL was created for each service.	A single WSDL is created for all document services.	It is easier to deploy services, and developers can reuse the data types among all services within the WSDL.
Manage multiple sites and web farms by using the IIS Web Deployment tool.	Not supported	The IIS Web Deployment tool is used to manage multiple sites.	It is easier to manage multiple sites.
Take advantage of the scalability and availability of services.	Network Load Balancing (NLB) was provided only for IIS servers.	NLB is provided for IIS servers and AOS instances. An NLB cluster must be created for services hosted on AOS to create a load-balanced environment for services.	You can create NLB clusters for services hosted on AOS.

Security/privacy

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define service security by using WCF configuration tools.	Only one service could be deployed at a time.	WCF is used to manage security for services. More than one service can be deployed.	Security management for services is simplified.

Services troubleshooting

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Troubleshoot services and AIF at the integration port level.	Troubleshooting was done at the service operational level.	Troubleshooting is done at the integration port level and can include multiple service operations instead of a single service operation. When large files are imported, error handling provides flexible options, such as continue, halt, and rollback.	Troubleshooting services is simplified.

Import and export data

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Process bulk import and export of data.	Not supported	A framework is provided for bulk import and export of data.	It is easier to bulk import and export data.

More information

More detailed information about Services can be found in the white papers titled Services in Microsoft Dynamics AX 2012 and Consuming Web Services.

Enterprise Portal and Role Centers

Microsoft Dynamics AX provides a set of web sites that give you access to data and that you can use to participate in business processes by using web-based forms. These sites are collectively called Enterprise Portal for Microsoft Dynamics AX.

Enterprise Portal can be configured to display role-specific home pages called Role Centers. A Role Centers provides an overview of information that pertains to a user's job function in the business or organization, including transaction data, alerts, links, common tasks associated with the user's role in the company, and reports generated by Microsoft SQL Server® Reporting Services (SSRS) or Microsoft SQL Server® Analysis Services (SSAS). Microsoft Dynamics AX includes more than two dozen predefined Role Centers, which users can access from Enterprise Portal or the Microsoft Dynamics AX client.

Overview

Item	Description
Required	Optional. You may or may not use this feature, depending on how you run your business.
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Enterprise Portal and Role Centers enable you to configure system settings and home pages based on business needs, user roles, and job functions. Enterprise Portal is easier to install, manage, and operate, and the enhanced search capabilities makes searching for data easier and more intuitive. A smoother user interface improves the user experience overall by providing better Action Panes, more configuration options, and more efficient data searches.

Special considerations

Enterprise Portal requires Internet Information Services (IIS), a feature of Windows Server, and either Microsoft SharePoint® Server 2010 (recommended) or Microsoft SharePoint Foundation 2010 (a free download). The new search framework for Microsoft Dynamics AX uses SharePoint Enterprise Search, which is included with SharePoint Server. Enterprise Search is not included with SharePoint Foundation. If you intend to use the free version of SharePoint, and you intend to deploy Search, use SharePoint Search Server Express 2010 (also a free download) instead of SharePoint Foundation.

Developers must note that Enterprise Portal no longer supports development in the X++ Web framework. Development of Enterprise Portal pages requires ASP.NET and the .NET Framework.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Foundation improvements
- Treasurer Role Center
- Enterprise Search

- User interface changes

Foundation improvements

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use enhanced initial setup and installation.	After installing Enterprise Portal, administrators had to manually compile X++ classes on the web server.	The installation no longer requires manually compiling X++ classes.	The installation experience is more efficient.
Use more options for deploying changes to a web server.	Administrators had to manually deploy changes by clicking various objects in the Application Object Tree (AOT). Also, administrators could not deploy changes from the AOT on a 32-bit client to a 64-bit Windows server.	Administrators can deploy changes to a web server by using the AxUpdatePortal utility or the Microsoft Dynamics AX client. Administrators can also deploy changes from a remote client machine to the web server.	The administration experience is more efficient.
Use more options for domain authentication.	Enterprise Portal had limited authentication options. Domain account management was time-consuming.	Enterprise Portal includes support for multiple domain authentication protocols, including Active Directory® directory services, Active Directory Federation Services, or pluggable authentication, such as forms-based authentication. This new authentication model is called flexible authentication.	The administration experience is more efficient.
Perform remote administration.	Not available	Administrators can manage remote Enterprise Portal deployments from the Microsoft Dynamics AX client.	The administration experience is more efficient.
Use enhanced support for themes.	Customizing the look and feel of an Enterprise Portal site to match a business's or organization's parent site was a manual, time-consuming process.	Enterprise Portal can automatically adopt the look and feel of a business's or organization's parent site if the parent site uses a theme in the SharePoint Theme Gallery. New themes can be applied with .thmx files from the SharePoint Theme Gallery.	The administration and customization experience is more efficient.

Treasurer Role Center

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
View important information in one location.		An overview is provided of relevant information, such as a work list, a frequently used list, and key performance indicator (KPI) information.	The most important information can be viewed at a glance.
View information relevant to treasurer tasks.		The same KPIs are displayed to the treasurer as to the controller, CFO, accountant, and accounting manager, but the reports are tailored to the treasurer’s role.	Information is customized to the treasurer’s role.

Enterprise Search

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Deploy Search from Setup.	Search had to be installed and configured from multiple forms in the client.	The Search server is centralized, and Setup verifies that the SharePoint Technology prerequisites are available on the server.	Centralized deployment by using Setup makes the deployment and configuration process more efficient.
Use enhanced search capabilities.	Search did not include metadata and documents attached to records.	Search includes data, metadata, and documents attached to records.	Users can search Microsoft Dynamics AX data by using common nouns, such as “customer” or “cash flow report,” or they can search for specific data, such as a customer name, product ID, or telephone number.
Use the improved search box.	The search box was located on a form that was difficult to locate, and search queries could not be refined.	The search box is prominently displayed, and there are several options to refine search queries.	Searches are more efficient and easier to use.

User interface changes

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Locate data quickly on list pages by using various types of filters.	Filtering capabilities were limited, and advanced filtering was complex and difficult to use.	A new quick filter, an improved advanced filter with common language capabilities, and a custom filter are included.	Data can be found and modified quickly.
Complete common actions on list pages faster with an Action Pane.	Toolbars were primarily navigation-based.	Action Panes are divided into button groups with action buttons that can be used to perform common tasks on a selected record, such as creating new sales orders.	Data can be found and modified quickly, and common tasks can be completed quickly.
Configure Action Panes.	Menu options for actions were accessed from a toolbar, which did not support images.	Administrators can use the new ribbon control to create Action Panes for Enterprise Portal task and list pages.	Data can be found and modified quickly, and common tasks can be completed quickly.
Preview important and related information on list pages.	Users had to leave a list page or form to view important or related information about a selected record.	Users can use FactBoxes, Cues Web parts, and preview panes to quickly access related information without opening another form.	Data can be found and previewed quickly.
Manipulate data in hierarchical grids.	Grid views could not be manipulated.	Users can move tasks by using a drag-and-drop operation. They can also indent or negative indent tasks, and select multiple rows at one time in grid views.	Control of data in grids is improved.
Search data in hierarchical grids.	Grid views could not be manipulated.	Column-based quick searches, quick filtering (operator = “contains”), and advanced filtering (multiple operators) are supported.	Control of data in grids is improved.
Stay on the current task page while completing actions.	When a user clicked an action on a task page, a new Enterprise Portal page opened. The user had to click the Back button to return to the task page.	Modal dialog boxes open separate forms when a user clicks an action on a task page. After users have finished entering data and close the form, they are returned to the original task page, and the data is updated.	Because of navigation changes, users can complete tasks without undue confusion.

Role-based security

In previous versions of Microsoft Dynamics AX, management of application security was a complex and time-consuming process. Administrators had to determine which tables and fields were needed for a task, and then grant permissions to the user for those tables and fields. In Microsoft Dynamics AX 2012, administrators manage security by defining roles and then assigning users to those roles. Security management is made more intuitive, it is role-based, and it is less time-consuming.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Instead of granting access to specific tables, fields, and menus, administrators can now grant access according to roles and duties. The administrator defines the roles used in the organization and assigns user to those roles.

Special considerations

If you are using a previous version of Microsoft Dynamics AX, your existing security setup cannot be directly upgraded to role-based security. You must evaluate your current user groups and determine the best way to implement them in Microsoft Dynamics AX 2012.

To effectively use role-based security, you must plan and set up the roles that are needed for your business. Work with the managers who oversee the different groups in the business to determine the appropriate permission levels for roles. For example, work with a manager in the Finance department to determine permission levels for Finance roles.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Role-based security

Role-based security

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define user groups.	No default user groups were provided.	Default roles have been defined and are available out of the box.	Security management has been simplified.
Set user group permissions.	Administrators had to determine which tables, fields, and menu items were required to complete tasks, and assign those items to user groups.	Default duties and privileges contain the tables, fields, and menu items required to complete tasks. Administrators assign duties and privileges to roles.	Security management has been simplified.
Reuse permissions across companies.	User groups were defined in each company, for each functional role.	After a role is defined, it can be used across multiple companies and organizations.	Security management has been simplified.
Filter columns that a user has access to.	Administrators determined which fields to restrict.	Only the appropriate columns are included in default duties and privileges.	Security management has been simplified, and security is improved.
Define permission levels (read only, create, update, and delete).	Security keys were used to define permission levels for user groups.	Separate default privileges are defined for each permission level.	Security management has been simplified.
Enforce regulatory and procedural compliance.	There were no built-in features to help prevent fraud and ensure compliance.	Administrators can set up rules for segregating duties to ensure that a user does not gain access to conflicting duties.	Security is improved.
Audit and report on security settings.	Auditing was a manual task for administrators.	Audit trails and reports to evaluate security setup are built into the application.	Security management has been simplified, and security is improved.

Data security

Data security in Microsoft Dynamics AX 2012 ensures that users have access only to the data that they need to do their jobs. In previous versions, data security authorization was performed primarily on the client; however, in Microsoft Dynamics AX 2012, more of the authorization is performed on the server. The server sends the client only the information that the user has been granted access to, resulting in increased data security.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers ISVs/developers Partners

New functionality

There are additional, more flexible options for restricting access to data in Microsoft Dynamics AX 2012.

Comparison with Dynamics AX 2009

Security authorization has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Extensible data security framework
- Server enforcement of security

Extensible data security framework

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use improved data security filters.	Filters could not be based on fields contained in a separate table from the data being filtered.	A user can create data security policies based on data that is contained in a different table.	Security controls are improved.
Use data security based on effective date.	Not available	Administrators can specify whether users have access to past, present, or future records, with different levels of access.	Security controls are improved.

Server enforcement of security

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Prevent users from accessing unauthorized data.	All information was sent from the server to the client, and the client hid unauthorized fields from the user.	The server filters information, and only information that the administrator grants the user access to is sent to the client and to the user.	Security controls are improved.
Consistently enforce security for all client types.	The Table Permissions Framework (TPF) was used to deny access to tables. All data was sent to the client, and specific fields in client forms were hidden based on permissions. Tables not protected by TPF were freely accessible by code.	TPF permissions can be applied at the field level. More authorization is performed on the server, which helps ensure that permissions are consistently enforced, regardless of the type of client.	Security controls are improved.

More information

More detailed information about Extensible Data Security (XDS) can be found in the white paper titled Developing Extensible Data Security Policies.

Organization model

Microsoft Dynamics AX 2012 introduces new organizational modeling capabilities, which helps to make your organizational structure easier to manage. Microsoft Dynamics AX 2012 supports more complex business hierarchies and greater customization of details to better reflect your business structure. Sharing data between organizations is also easier and more secure.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

More detailed hierarchy models can be created to better reflect your business structure and processes. You can also more easily share data between organizations, including reference information, master data, and transactions. Previous versions of Microsoft Dynamics AX had limited capabilities for hierarchies and business modeling and did not share data between organizations, except in certain cross-company and virtual company scenarios.

Special considerations

Before setting up the organizational structure, you should plan a hierarchy of organizations that represents your business processes.

The organization model supports data sharing that you may have previously implemented by using virtual companies. If you are currently using virtual companies, we recommend that you evaluate whether the organization model meets your needs. Virtual companies are still necessary in some situations.

Comparison with Dynamics AX 2009

The organization model has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Hierarchy models

Hierarchy models

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create models for various types of organizations.	Each organization in the business was created as a "company," regardless of the type or hierarchy of the organization.	You can create legal entities and several types of operational organizations.	You can create more accurate business models.
Create organization hierarchies.	Hierarchical relationships between companies could not be represented.	The organization hierarchy designer can reflect the hierarchical nature of your business.	You can create more accurate business models.
Create multiple operating unit hierarchies.	Not supported	You can build specialized hierarchies to report on various perspectives of the business.	Reporting can be more complex and accurate.
Share data between organizations.	Users were required to create virtual companies to share data.	Many tables are shared by all organizations, so users can access data in those tables, regardless of the company or organization context.	It is easier to access and share data.
Create data security based on the organization hierarchy.	Tasks could be performed only in the context of a company, and company information could only be accessed when users were logged on to that company.	Users can view or modify data in different organizational structures, depending on the business process they are working in, rather than the company they are logged on to.	It is easier to set up security roles and access.

Analysis cubes

An analysis cube is a set of related measures and dimensions that is used to analyze data. Developers can create reports and key performance indicators (KPIs) that are based on the analysis cube data. Users can use the reports and KPIs in the client or from a Role Center to analyze the data that is modeled in the analysis cube and to identify statuses and trends based on this analysis.

Overview

Item	Description
Required	Optional. You may or may not use this feature, depending on how you run your business.
Feature areas affected	• Business intelligence • Role Centers
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

In previous versions of Microsoft Dynamics AX, analysis cubes required the user to have full license keys and access to all data; otherwise, the configuration keys had to be modified through a lengthy and difficult process. In Microsoft Dynamics AX 2012, analysis cube settings are easier to modify to suit business needs and security levels. It is easier to create or update SQL Server Analysis Services (SSAS) projects by using the Analysis Services Project Wizard. It is also easier to model data by using views in perspectives.

Special considerations

Default cubes are available in Microsoft Dynamics AX 2012. You can customize the default cubes or create new custom analysis cubes by using the provided tools.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Analysis Services Project Wizard
- Setup Wizard
- Workflow performance cube and reports
- EMS cube and Role Center
- Supply chain management cubes and dimensions
- OLAP modeling improvements
- Business Overview Web part

Analysis Services Project Wizard

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Deploy and configure cubes.	Default analysis cubes required full license and configuration keys.	The SQL Server Analysis Services Project Wizard updates projects after configuration keys are modified.	Analysis cube deployment and Role Center implementation are flexible and simplified.
Create or modify SQL Server Analysis Services projects.	The Business intelligence project generation options form was used to create or modify SQL Server Analysis Services projects.	You can use the Analysis Services Project Wizard to do the following: • Create a new SQL Server Analysis Services project. • Deploy an existing SQL Server Analysis Services project. • Update an existing SQL Server Analysis Services project.	It is easier to maintain analysis cubes.

Setup Wizard

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Install business intelligence components.	Analytics were installed without prerequisite verifications.	Installation of prerequisite software is verified, and the user is prompted to select default SQL Server Reporting Services and SQL Server Analysis Services.	The installation and configuration processes are simplified.

Workflow performance cube and reports

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use the workflow cube to monitor business processes.	Not supported	Data is provided to track the history and current status of business processes in the user's organization.	Inefficiencies are identified, and the business can operate more smoothly.
View workflow performance analysis reports.	Not supported	Reports on workflow performance are produced to determine efficiency, and an automated process is compared with the manual processes it replaced.	Workflows are modified, and performance is optimized.
Compare an automated workflow to manual processes.	Not supported	The amount of work that was completed by the workflow and the time required for completion are displayed.	Workflow performance is optimized.

EMS cube and Role Center

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Track the environmental impact of your organization	Not available	Provides data to help track energy consumption and greenhouse gas emissions.	Provides a proactive approach to environmental issues.

Supply chain management (SCM) cubes and dimensions

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Slice on procurement and sales categories.	Not supported	The sales and procurement category dimension slices measures in the purchasing and sales cubes. Category hierarchy levels adapt to the provided hierarchy data.	Products can be grouped in procurement and sales categories, which can be organized into hierarchies.
Slice on geographic location.	Geographic slicing on purchasing and sales cube measures could only be done through the customer or vendor dimension.	A new geographic dimension is available that directly slices on the actual address in the fact table.	Users can drill down in analysis cube measures, based on the address that is specific to the source document that the fact table is based on.

OLAP modeling improvements

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define analysis cube measures and dimensions by using Microsoft Dynamics AX views.	Analysis cube measures and dimensions were defined by using only tables.	Analysis cube measures and dimensions are defined by using tables and views.	The modeling experience is richer.
Add financial dimensions to cubes.	A limited number of dimensions was available.	Users can add any number of financial dimensions to analysis cubes.	Analysis cubes are easier to customize.
Define Gregorian calendars, and add them to analysis cubes as dimensions.	SQL Server Business Intelligence Development Studio was required to modify the time dimension and define the calendar properties.	The Calendar builder is used to define the calendar properties.	Modification of the time dimension and calendar properties is simplified.
Add organization units, such as operating units, profit centers, and departments, to analysis cubes.	Default cubes contained limited company dimensions.	Multiple company dimensions can be included.	Analysis cubes are easier to customize.
Use layer-based customization of analysis projects.	Not available	Analysis projects are saved to the AOT, and layer-based customizations can be imported or exported.	Customization is aligned with the entire Microsoft Dynamics AX development experience.

Business Overview Web part

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use default cubes.	ODC files were required to connect to default cubes.	ODC files are not required to connect to Microsoft Dynamics AX 2012 default cubes.	Default cubes are easier to use.
Slice key performance indicators (KPIs) by time.	Not available	Displayed KPIs can be sliced by time.	Data can by sliced by time.

Reporting

Microsoft® SQL Server® Reporting Services is the primary reporting platform for Microsoft Dynamics AX 2012. The default, out-of-the-box reports that are provided with Microsoft Dynamics AX have been converted to run on the Reporting Services platform.

Reporting Services is a server-based reporting platform that provides comprehensive reporting functionality for a variety of data sources. Reporting Services includes a set of tools that you can use to create, manage, and deliver reports, and APIs that developers can use to integrate or extend data and report processing in custom applications. Reporting Services tools work within the Microsoft Visual Studio environment, and interoperate with Microsoft SQL Server tools and components.

Overview

Item	Description
Required	Yes
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

The default, out-of-the-box reports that are provided with Microsoft Dynamics AX have been converted to run on the Reporting Services platform. The Microsoft Dynamics AX reporting framework has also been updated so that it is easier to develop new reports that run on the Reporting Services platform.

Special considerations

Reports will not be upgraded from Microsoft Dynamics AX 2009 to Microsoft Dynamics AX 2012. Microsoft Dynamics AX 2012 provides hundreds of default, out-of-the-box reports that you can deploy and customize.

SQL Server Reporting Services reports in Microsoft Dynamics AX 2009

When you upgrade to Microsoft Dynamics AX 2012, existing Reporting Services reports are copied to the Microsoft Dynamics AX 2012 system, but they are not upgraded. We recommend that you use a Reporting Services report (provided with Microsoft Dynamics AX 2012) as a template and customize it to meet your needs.

X++ reports in Microsoft Dynamics AX 2009

The X++ reporting framework is being deprecated in Microsoft Dynamics AX 2012.

When you upgrade to Microsoft Dynamics AX 2012, reports based on the X++ reporting framework are copied to the Microsoft Dynamics AX 2012 system, but they are not upgraded. We recommend that you use a Reporting Services report (provided with Microsoft Dynamics AX 2012) as a template and customize it to meet your needs.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Installation
- Report deployment
- Reporting framework

Installation

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Validate that prerequisites are installed.	Prerequisite software had to be manually installed and verified.	A tool is available that installs some of the prerequisite software for you and verifies that all prerequisites have been met.	The installation process is simplified, and you can make sure that the business intelligence components can be installed successfully.
Install SQL Server Reporting Services and Enterprise Portal on separate servers without having to configure Kerberos authentication.	Kerberos authentication was required when SQL Server Reporting Services and Enterprise Portal were installed on separate servers.	Kerberos authentication is not required.	The installation process is simplified.

Report deployment

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Deploy reports with Microsoft Windows PowerShell™ 2.0.	The Microsoft Dynamics AX Reporting Project Deployment tool was used to deploy reports.	Windows PowerShell 2.0 is used to deploy reports.	The report deployment process is simplified.
Deploy reports in multiple languages.	When a single report was deployed, 42 copies of the report were deployed—one for each language supported by Microsoft Dynamics AX.	When a single report is deployed, only one version of the report is deployed, and that version automatically works with all languages supported by Microsoft Dynamics AX.	The report deployment process is simplified and streamlined for organizations that must support multiple languages.

Reporting framework

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Modify queries used by the reports.	You could not modify the queries used by SQL Server Reporting Services reports.	You can modify the queries used by SQL Server Reporting Services reports.	You can make sure that the Microsoft Dynamics AX reporting framework that is based on SQL Server Reporting Services meets your business needs.
Create auto-reports.	Auto-reports were generated by using the legacy X++ reporting framework.	Auto-reports are generated by using the SQL Server Reporting Services framework.	You can make sure that the Microsoft Dynamics AX reporting framework that is based on SQL Server Reporting Services meets your business needs.
Print reports as part of a batch.	Only reports based on the legacy X++ reporting framework could be printed as part of a batch.	SQL Server Reporting Services reports can be printed as part of a batch.	You can make sure that the Microsoft Dynamics AX reporting framework that is based on SQL Server Reporting Services meets your business needs.

Report development

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Access data for a report.	AX Query, SQL DB, and OLAP were used for data access.	AX Query is used for display methods, field groups, and dimensions.	Data access and performance are improved.
Process business logic for the data on a report.	DataMethods and managed code were used.	The Report Data Provider (RDP) framework is used, which supports complex business logic in X++ code.	Data access and performance are improved.
Use .NET-enabled functionality.	.NET Business Connecter was used.	You can create a custom service and access the service from a report.	Data access and performance are improved.
Return large datasets for reports faster.	DataMethods was used to return DataTable.	DataMethods and IEnumerable<DataRow > are used for large datasets.	Data access and performance are improved.
Rely on the model for automatic report functionality.	Security keys and .NET RESX files were used instead of the AX Label system.	Auto-formatting based on extended data types, AX labels in reports, RTL auto-flipping, and row-level security improvements are supported.	The creation of reports is simplified.
Experience an improved report development environment.	The X++ reporting framework and Visual Studio 2008 were used.	Visual Studio 2010 is used for enhancements to auto-design and Dundas charts.	It is easy to find developers who have .NET development experience to define or modify reports. The charting experience is richer, and reports are interactive.

Financial dimensions

Financial dimensions are data classifiers that are used for financial reporting. They identify information, such as the purpose, cost center, and department. Financial dimensions have changed considerably since Microsoft Dynamics AX 2009.

Overview

Item	Description
Required	Conditionally required. If you are using this feature in a previous version, significant changes have been made to it, and you must review this topic.
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Financial dimensions are now more easily tailored to fit your needs. Many aspects of the data entry process have been streamlined and simplified, and you can view more detailed information about transactions and financial information.

Special considerations

There are steps in the Pre-upgrade checklist that you must complete before you can upgrade to Microsoft Dynamics AX 2012. In Microsoft Dynamics AX 2009, you could create ledger account categories and financial dimensions for each company. In Microsoft Dynamics AX 2012, the main account categories and financial dimensions that you create are shared and can be used by any of the legal entities that are set up in Microsoft Dynamics AX. Therefore, you must select the main account categories and financial dimension sets that can be shared between the legal entities.

Dimension focuses have been renamed to financial dimension sets. Financial dimension sets are shared by all of the legal entities that are set up in the Legal entities form. Financial dimension sets in Microsoft Dynamics AX 2012 are not the same as the dimension sets in previous versions of Microsoft Dynamics AX.

Comparison with Dynamics AX 2009

Financial dimensions have changed considerably since Microsoft Dynamics AX 2009. The dimensions framework from previous versions has been removed, and the financial dimensions framework in Microsoft Dynamics AX 2012 is new. Microsoft Dynamics AX 2012 also includes changes to the following:

- Financial dimensions
- Charts of accounts
- Account structures
- Account dimension values on transactions
- Financial statements and reporting
- Analyzing ledger cubes

Financial dimensions

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Add unlimited financial dimensions.	Users could create a limited number of financial dimensions: • 3 default • 7 user-defined	Users can create an unlimited number of financial dimensions.	Accounting tracking and reporting can be more complex.
Create financial dimensions more easily.	Financial dimensions were created one at a time, using a wizard that required the user to compile and synchronize in order for the dimension changes to take effect.	Financial dimensions can be created by using a form, similarly to the way other base data setup tasks are performed.	Creating and using financial dimensions is easier.
Rename default financial dimensions.	Renaming the default financial dimensions was complicated and often required IT assistance.	Users can create and rename any financial dimension without assistance from IT.	Modifying default financial dimensions is easy and does not require customizations.
Link financial dimensions to an entity.	When users wanted to track an existing entity, such as a customer, vendor, or site, as a dimension, they also had to manually define every entity instance as a financial dimension value.	Users can link a financial dimension to an entity within the system and use the values of the entities as the financial dimension themselves.	Using financial dimensions is easier.
Define a date range for financial dimension values.	Users could not define a date range to specify when financial dimension values could be entered or posted on transactions.	A date range can be entered on each financial dimension value.	There are additional controls for date-sensitive activities.

Charts of accounts

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Set up a chart of accounts, and use it for all legal entities in your organization.	Charts of accounts were specific to one legal entity.	You can use the same chart of accounts for multiple legal entities.	Creating and using the charts of accounts is easier.

Account structures

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Include a financial dimension as a segment in one or more account structures.	Users could not assign a dimension to one or more dimension sets.	A financial dimension can be included in one or more account structures.	Using financial dimensions is easier.
Set up an account structure more easily.	The process of setting up an account structure was complex and required several steps to complete.	The process of setting up an account structure is easier, and the number of steps required to do so is reduced.	Configuring an account structure is easier.
View a valid date range for a dimension value combination.	No date range was available to tell users when a dimension value combination could be used on a transaction.	An active date range can be entered on a node of an account structure.	There are additional controls for date-sensitive activities.
View required dimensions.	All dimensions were displayed to the user at all times, with no visual indication of which dimension needed to be filled in.	Users can define an unlimited number of account structures. A user can assign a range of main account numbers to an account structure, but each main account number instance can only be assigned to one account structure.	The data entry process is improved.

Account dimension values on transactions

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Enter the main account numbers and dimensions in the same location.	The dimensions were displayed and entered on a separate tab, breaking the flow of data entry.	You can use the new account number entry control to enter a main account and dimension in the same location.	The data entry process is improved.

Financial statements and reporting

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Print financial statements to Microsoft® Excel®.	Users could not print financial statements to Microsoft Excel.	Users can print financial statements to Microsoft Excel.	Users can use all of the features in Microsoft Excel.

Analyzing ledger cubes

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
View detailed financial dimensions.	Only three default dimensions were available for analysis in the cubes.	All dimensions created within Microsoft Dynamics AX are available within the financial cubes.	Financial analysis can be more detailed.

More information

More detailed information about Financial Dimensions can be found in the white paper titled Implementing the Account and Financial Dimensions Framework for Microsoft Dynamics AX 2012 Applications.

Budgeting and budget control

In Microsoft Dynamics AX 2009, budgeting was primarily informational. Microsoft Dynamics AX 2012 provides budgeting and budget control solutions for public and private sector organizations. Budget register entries have replaced ledger budget tables and are available in workflows that can be used for routing and review.

Budget control is a process that monitors a budget, and that can provide feedback about the availability of funds during the entry of budget register entries, accounting journals, and source documents such as purchase orders and invoices. Although budgeting and budget control are important to any organization that wants to control spending, they are of particular interest to public sector organizations because their budgets are often enacted into law and cannot be easily exceeded or revised.

Overview

Item	Description
Required	Optional. You may or may not use these features, depending on how you run your business.
Feature areas affected	• Enterprise Portal (Budget manager\analyst Role Center) • Budgeting • Public sector
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Budget register entries are now used to formulate budgets and provide an audit trail of budget-related activities. Budget register entries can be categorized by transaction type, such as amendment, transfer, and original budget, so that you can quickly understand how a budget has changed. Workflows can ensure that budget register entries undergo a review process. Existing Microsoft Dynamics AX 2009 ledger budget records are converted to budget register entries in Microsoft Dynamics AX 2012.

Budget control is based on the ledger for a legal entity and can be defined by a user to monitor budgets and to provide feedback about the availability of funds. Users can define the calculation that determines the budget funds that are available and specify dimensions and dimension values separately from a main account for budget control.

Special considerations

There are three system configurations for budgeting and budget control:

- Basic configuration provides budget register entries and workflows.
- Advanced configuration adds budget control.
- Public sector configuration adds apportionment and preliminary budget register entries.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Budget manager/analyst Role Center
- Financial dimensions for budgeting and budget control
- Budget rate type and exchange rates
- Budget models
- Budget cycles
- Budget control configuration
- Budget control on source documents and accounting journals
- Budget register entries
- Workflow for budget register entries
- Budget transfer rules
- Budget transfers, allocations, and recurrences
- Budget reports and inquiries
- Web services interface for budget register entries

Budget manager/analyst Role Center

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Perform common tasks, and view frequently used forms and reports from a single location.	Not available	Budget managers can access the commonly used forms, FactBoxes, charts, reports, activities, and work items that they need to complete daily tasks and make informed decisions.	Key forms and information are consolidated into a single location.

Financial dimensions for budgeting and budget control

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Select financial dimensions in the chart of accounts for budgeting.	Only a limited number of financial dimensions was provided.	Users can include or exclude specific dimensions, including main accounts, for budgeting.	Budgeting and account number entry are easier.
Select dimensions from the account structure in the chart of accounts for budget control.	The budget was always available at a main account level, with the option of adding dimensions.	Users can specify dimension values to hold budget amounts, without regard to their specific usage in main accounts.	Selecting specific dimensions, including main accounts, for budget control is flexible.

Budget rate type and exchange rates

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create a budget rate type, and associate exchange rates.	Not available	Users can define currency pairs and associate exchange rates with the default budget rate type for the ledger.	Creating and maintaining exchange rates specifically for budgets is easier.

Budget models

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Identify a budget by associating it with a budget model.	Budget models were used to identify budgets.	Budget models can be used to identify budgets.	Categorizing budget register entries, identifying budgets, and assigning budget cycles are easier.
Use budget models to structure ledger budgets and develop budget forecasts.	Budget models were used for simulations and forecasts.	Budget models can be used for simulations and budget forecasts.	You can run simulations and compare budget forecasts.
Build complex budget models by using submodels for planning and reporting.	Budget models and submodels were used to aggregate budget amounts.	Submodels can represent departments or a variety of other organizational entities.	Budget planning and the ability to produce reports with consolidated balances are flexible.

Budget cycles

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create a budget cycle time span with one or more budget cycles that can be used across legal entities.	Not available	Users can map the budget cycle time span to a fiscal year or specify the number of accounting periods that each budget cycle represents.	Budget control can be implemented for part of a fiscal year or over one or more fiscal years.

Budget control configuration

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define parameters and dimensions for budget control.	Not available	Dimensions and default parameters for budget control are defined in one location.	Budget control options are centralized.
Select the default over-budget permissions for user groups.	Not available	Users can assign options for user groups to allow or prevent over-budget processing of source documents and accounting journals.	Handling over-budget processing for specific user groups is flexible.
Define the calculation for the budget funds that are available.	Not available	Users can determine the amounts that are added and subtracted for the calculation that determines the available budgets funds.	Customization of the calculation for available budget funds is simplified.
Determine the source documents and accounting journals for budget control.	Not available	Budget checking can be used for source documents and account journals at the header level or the line item entry.	The processing of specified source documents and accounting journals is controlled.
Assign budget models to budget cycles and budget cycle time spans.	Not available	Users can implement one or more budget models and budget cycles, so that, for example, a capital expenditure budget model and an operating budget model can be used for budget control.	Implementing budgets is flexible.
Define budget control rules.	Not available	Users can define rules for specific dimensions, over-budget permissions, and parameters.	Defining dimension values and parameters for budget control is flexible.
Select main accounts for budget control.	Not available	When a main account is not selected as a budget control dimension, users can select specific main accounts for the application of budget control rules.	It is easier to implement budget control for dimensions and main accounts.
Define budget groups.	Not available	Users can set up budget checking for pooled dimensions and accounts.	Implementing budget control for dimensions and dimension values is flexible.
Modify, activate, restore, and turn on the budget control configuration.	Not available	Users can control the active budget control configuration and modify a draft version.	The implementation and administration of budget control are simplified.

Budget control on source documents and accounting journals

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Run budget checks when line items are entered, or postpone the budget check until an action, such as an approval, is taken on the source document.	Not available	Source documents include purchase requisitions, purchase orders, vendor invoices, travel requisitions, and expense reports.	Over-budget processing is controlled or prevented.
Run budget checks when each general journal line is entered, or postpone the budget check until the journal is posted.	Not available	Accounting journals include daily journals, allocation journals, project expense journals, and fixed asset journals.	Over-budget processing is controlled or prevented.

Budget register entries

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use budget register entries to formulate and manage budgets.	Ledger budget tables provided static storage for budget records.	Users can define one or more codes for the following budget transaction types: original budget, transfer, amendment, encumbrance, pre-encumbrance, carry-forward, project, fixed assets, demand forecast, supply forecast, apportionment (Public sector), and preliminary budget (Public sector).	Users can track, categorize, and audit budget register entries.
Use subledger budget transaction types when budget forecasts are transferred to the general ledger.	Users could not track the transfer of budgets from subledgers to the general ledger.	Users can transfer forecasts for projects, fixed assets, demand forecasts (inventory sales), and supply forecasts (inventory purchasing).	Transferring forecasts ledgers is simplified.
For the public sector, use preliminary budgets and apportionment budgets.	Not available	Users can define codes for apportionment and preliminary budget register entries.	Public sector organizations can use preliminary budgets for budget control and apportion part of an approved budget.
Create posting definitions for budget register entries.	Not available	When budget register entries are processed, posting definitions can create ledger entries for multiple accounts.	Budget register entries can be automatically posted to a ledger.

Workflow for budget register entries

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Set up budget transaction workflows.	Not available	Budget register entries associated with a workflow are automatically routed for review.	Routing and reviewing budget register entries are easier.

Budget transfer rules

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Define budget transfer rules.	Not available	Budget transfer rules determine when budget transfers between dimensions can occur.	Budget transfers are controlled.

Budget transfers, allocations, and recurrences

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Transfer budget amounts.	Not available	When budget control is turned on, users can transfer budget amounts while entering other budget register entries, or they can transfer budget amounts from source documents and accounting journals.	Transferring budget amounts is flexible.
Allocate budget funds by dimension or period.	Users could only allocate funds by period or dimension during budget entry.	Users can spread a budget amount across dimension values or fiscal periods by using a single transaction.	Creating budget allocation transactions is easier.
Enter a recurrence pattern for budget register entries.	Users could create recurring budget expenses.	Users can create recurring budget register entries.	Creating recurring budget register entries is easier.

Budget reports and inquiries

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use reports and inquiries to view budget register entries, budget control statistics, and budget funds.	The Actual versus budget report was available.	Users can set parameters to sort and categorize budget data in the following reports and inquires: • Budget funds available report • Actual versus budget report and inquiry • Budget detail report • Budget control statistics inquiry	Users can view, analyze, track, and audit available budget amounts, actual versus budgeted expenditures, budget register entries, and budget control statistics.

Web services interface to budget register entries

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create, retrieve, and update budget register entries from third-party applications	Not available	Users can generate and import the XML for budget register entries.	Budget register entries that were created with external budget formulation tools can be used.

More information

More detailed information about budgeting can be found in the white papers titled Implementing the Budget Control Framework for Microsoft Dynamics AX 2012 Applications and Implementing Budgeting for Microsoft Dynamics AX 2012 Applications.

Ledger and subledger lines and distributions

Accounting distributions and subledger journal entries are the foundational pieces of the new accounting framework. Accounting distributions enable a user to define how amounts on a source document impact account balances, such as ledger accounts in General ledger or projects. A subledger journal entry is the accounting entry created for a source document. The subledger journal entry remains in the subledger and can be previewed before a source document is journalized.

With the addition of subledger journal entries, additional performance optimization and summarization rules can be defined for the transfer of the subledger journal entries to General ledger. The transfer process can be defined to occur synchronously or asynchronously. During the transfer process, a user also has the option to summarize the subledger journal entries for similar source documents to reduce the quantity of data in General ledger.

Overview

Item	Description
Required	Optional. You may or may not use this feature, depending on how you run your business. The functionality is always enabled, but if your business requires no modifications to default ledger accounts, you can choose to not use the functionality.
Feature areas affected	• Procurement and sourcing • Accounts payable • Accounts receivable • Travel and expense
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Before you journalize a source document, you can preview the accounting entry to verify that the amounts are being journalized to the correct ledger accounts. This view of the accounting entry is called a subledger journal entry.

You cannot modify subledger journal entries directly. To modify subledger journal entries, you must correct the accounting distributions, posting profile, or posting definitions. Accounting distributions are used to define how an amount is accounted for, such as which revenue or expense ledger account an amount is posted to in General ledger. The primary information about an accounting distribution is the amount on the source document line and the ledger account for which that amount is distributed.

When there are common patterns that you use to distribute amounts on a source document line, you can use a template of percentage and dimension value combinations. The information in the template is used to create the accounting distributions for amounts on a source document line.

Special considerations

- You cannot split accounting distributions for stocked items or fixed assets.
- Existing posting profiles are used, so additional setup is not required.
- You can set up asynchronous and summarization options.
- New terminology is used in Microsoft Dynamics AX 2012, as shown in the following table.

Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Definition
Post	Journalize	To record a documented business event in the subledger journal.
	Post	To record the monetary value of an economic event in a specific account, or to summarize and reclassify general and subsidiary journal account entries into general and subsidiary ledger account entries.
Transaction	Source document	An original record that evidences the occurrence of one or more business events.
	Journal entry	A record of a business event.
	Transaction	A social or physical economic exchange action.

Comparison with Dynamics AX 2009

The accounting distribution and subledger journal entry functionality is new in Microsoft Dynamics AX 2012 and has been implemented in the following source documents:

- Purchase requisitions
- Purchase orders
- Product receipts (previously called PO packing slips)
- Vendor invoices
- Free text invoices
- Travel requisitions
- Expense reports

Accounting distributions and subledger journal entries

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Preview the accounting entry of a source document before journalizing it in the subledger and transferring it to General ledger.	There was limited visibility of what was actually journalized and transferred to General ledger.	The full accounting entry is displayed in all currencies before it is journalized and transferred to General ledger.	Period-end adjustments through a general journal are minimized.
Use a template to define accounting distributions.	Not available	Templates can be created for financial dimension values, but not the main account, to create accounting distributions.	Data entry is simplified.
Distribute an amount by using various allocation factors.	Not available	An amount can be distributed by amount, by percentage, by quantity, or equally.	A user can define the allocation factor that is used to distribute an amount.
Have the flexibility to define a batch for each source document type, so that you can transfer to General ledger.	Batches were available, but they had to be manually assigned to each source document.	Batches are automatically created or defined by a user, and are automatically assigned to a source document type.	Processing is postponed to maximize responsiveness. Therefore, data entry is faster.
Define how the amount on one source document line can be accounted to more than one ledger account.	Not available	Users do not have to enter a separate source document line for each operating unit. Instead, one line is created, and the accounting distribution is split.	Operations, not accounting, determines how a source document is recorded.
Define accounting distributions on an upstream source document.	Not available	Accounting distributions defined on a purchase requisition are used to determine the accounting distributions for all downstream source documents (purchase orders, product receipts, and vendor invoices).	The correct persona defines how an amount should be accounted for and consistently used in the lifecycle of the business event.
Support accounting for intercompany transactions.	Accounting for intercompany transactions was available only in journals.	If a source document supports intercompany transactions, the appropriate due to/due from account entries are created in the subledger journal entry.	The appropriate intercompany accounting entries are consistently created for any source document that supports intercompany transactions.

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Integrate accounting distributions and project accounting.	Not available	Source documents that support project accounting can use the accounting distributions to define how the amount is distributed to projects.	Operations, not project accounting, determines how a source document is recorded.
Validate and reserve budget, based on the accounting distribution information.	Not available	A user can define budget control rules and use those rules when entering source documents.	Purchases are guaranteed to be within budget.

Taxes

Sales tax processing in Microsoft Dynamics AX 2012 has been updated to help organizations comply with applicable tax laws in numerous countries/regions, including the European Union's 2010 regulations on value-added tax (VAT) for services. EU sales list reporting has been updated to comply with these changes. Tax rates can now allow up to five decimal places. Changes to calculated taxes for selected source documents are now saved before the source document is journalized. Changes to calculated taxes for selected journals are now saved before the journal entries are posted.

Overview

Item	Description
Required	Yes
Feature areas affected	• Journals: General journal, Invoice journal, Invoice register, Invoice approval journal, Promissory note journals, Bill of exchange journals, Project expense journal • Source Documents: Customer invoices, Free text invoices, Purchase requisitions, Purchase orders, Product receipts, Project invoices, Travel expense reports, Vendor invoices
Stakeholders	Business decision makers Implementation team members ISVs/developers Partners

New functionality

Tax rates that contain up to five decimal places can be used.

On January 1, 2010, changes to the rules that govern the place of supply of services took effect. These changes also affect the simplified compliance requirements for European Union (EU) businesses that provide VAT-taxable services in multiple EU member states.

Changes to EU sales list reporting provide more detailed reporting by item, service, or investment amounts.

Special considerations

You must understand how the sales tax functionality in Microsoft Dynamics AX works. For more information, search for "Setting up sales tax codes" and "Setting up sales tax" using the Microsoft Dynamics AX Websearch tool.

Comparison with Dynamics AX 2009

Taxes have changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Tax rate decimal places for sales tax codes
- Save calculated taxes before source documents or journals are posted
- Value-added tax (VAT) package for services
- EU sales list transfer functions reporting

Tax rate decimal places for sales tax codes

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Use more than two decimal places for tax rates.	Tax rates with three or more decimal places, such as 0.125, were rounded to two decimal places, such as 0.13.	Tax rates can contain up to five decimal places.	Helps organizations comply with local, state, and federal requirements in various countries/regions.

Save calculated taxes before source documents or journals are posted

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Modify and save calculated tax amounts for the following source documents: • Free text invoice • Purchase requisition • Purchase order • Product receipt • Vendor invoice • Travel expense report	Taxes were recalculated every time a source document was opened, and changes were not saved until the source document was posted (journalized).	You can change calculated taxes for a source document, and the changes are saved, even if the source document is not immediately journalized.	Usability is improved.
Modify and save calculated tax amounts for the following journals: • General journal • Invoice journal • Invoice register • Invoice approval journal • Promissory note journals • Bill of exchange journals • Project expense journal	Taxes were recalculated every time a journal entry was opened, and changes were not saved until the journal entry was posted.	You can change calculated taxes for a journal entry, and the changes are saved, even if the journal is not immediately posted.	Usability is improved.
Clear saved sales tax amounts for a sales tax code or sales tax group.	Not available	If necessary, you can clear the saved tax amounts for a sales tax code, sales tax group, or item sales tax group.	Improved usability for organization compliance with tax regulations.
Optionally hide sales tax amounts on journal entry forms.	Not available	For each journal name, you can select whether to hide or show sales tax amounts on journal entry forms.	Performance is improved.

Value-added tax (VAT) package for services

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Set up place-of-supply rules for services.	This feature was available as a regulatory feature update for the affected countries/regions.	Users can set up different item sales tax groups, and assign the correct reporting type (item, service, or investment).	Facilitates an organization's compliance with European Union (EU) regulations.
Set up EU sales list reports.	This feature was available as a regulatory feature update for the affected countries/regions.	Services, investments, and items are listed on EU sales list reports.	Facilitates an organization's compliance with European Union (EU) regulations.
Sell services across country/region borders.	This feature was available as a regulatory feature update for the affected countries/regions.	Invoices are processed by using appropriate VAT rates for item and service products.	Rates are automatically calculated.

EU sales list transfer functions reporting

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Include line amounts for services.	Only line amounts that included items could be transferred to the EU sales list.	Users can include line amounts for lines that use an item sales tax group that has a reporting type of Service.	Facilitates an organization's compliance with European Union (EU) regulations.
Include line amounts for investments.	Not available	Users can include line amounts for lines that use an item sales tax group that has a reporting type of Investment.	Facilitates an organization's compliance with European Union (EU) regulations.

Time zones

Microsoft Dynamics AX is designed to support businesses that operate in multiple countries/regions and operate in multiple time zones. Microsoft Dynamics AX 2012 can more easily support users in multiple time zones.

Overview

Item	Description
Required	Conditionally required. If you are using this feature in a previous version, significant changes have been made to it, and you must review this topic.
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Previous versions of Microsoft Dynamics AX did not easily support multiple time zone data, but in Microsoft Dynamics AX 2012, it is easier to set and change time zone preferences, synchronize time zone preferences with local time zones, and view different time zone information for transactions.

Special considerations

Current time zone calculations are all based either on the time zone of the central AOS or on a single time zone. A default time zone must be assigned for each company.

Comparison with Dynamics AX 2009

Time zone information and support has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Multiple time zone support
- Time zone settings form
- Datetime fields

Multiple time zone support

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Change time zones on orders and reports.	Not supported	Users can change time zone preferences when displaying transaction information, such as datetime information in the time zone where transactions occur or where the user is located, or according to the business logic.	It is easy to view different time zone information for orders.
Customize time zone options.	Custom time zones were not recognized or monitored.	Users can create custom time zones, and users are notified when those time zones are changed or are not synchronized.	Time zone settings can be customized according to business needs.

Time zone settings form

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Identify the preferred time zone.	Not supported	Individual users can set time zone preferences without affecting the central AOS time zone.	Customization can be performed, and the data entry process for users is improved.
Synchronize the preferred time zone with the local time zone when travelling.	Not supported	Users can temporarily change time zone settings without altering their normal time zone preferences.	The data entry and viewing processes are improved.
Automatically convert time zones.	Datetime fields from the AOS time zone had to be manually converted to local time.	Datetime information is automatically converted between the AOS time zone and the local time zone.	You can be sure of the accuracy of datetime information.

Datetime fields

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Automatically merge date and time fields into datetime.	Information could only be entered as a date or time, and no time zone information was available.	Date and time fields are automatically merged into datetime information for time zone support. Data does not have to be re-entered.	Data is automatically converted or upgraded.
Extend the datetime type to milliseconds.	Datetime was not available.	Data up to milliseconds can be used, to synchronize with .NET and SQL datetime types.	You can be sure of the accuracy of logs and audit trails.
Automatically update fields with UTCNow.	UTC values had to be manually generated in the database.	Datetime UTC values are automatically generated in the database.	UTC values always remain accurate and current.
Use different types of date and time data on transactions.	Transactions contained only date or time entry fields, and there was no time zone information.	Transactions are recorded by using date (date only), time (time only), or datetime (date and time) information about transactions.	Additional options are provided, and the accuracy of data is improved.
Use custom rules in the datetime control.	Not available	Datetime fields can be displayed in various time zone settings.	Customization can be performed according to customer needs.

Address book

In Microsoft Dynamics AX 2012, the address book functionality has been enhanced. You can now create multiple address books instead of creating virtual companies, and you can control access to address books by granting privileges based on teams or legal entities. Additionally, your Human resources department can now create applicant records directly from the Applicant form.

Overview

Item	Description
Required	Yes
Feature areas affected	Accounts payable Accounts receivable Human resources Sales and marketing Procurement and sourcing
Stakeholders	Implementation team members ISVs/developers Partners

New functionality

In Microsoft Dynamics AX 2012, you can define any number of address books and assign teams or legal entities to them, so that you can control which workers have access to specific address books.

You can also select whether to enforce policies for a specific address book or for all address books in a legal entity within your organization.

Human resource applicant records can be created from the Applicant form and stored in the address book.

Comparison with Dynamics AX 2009

The global address book has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Functionality
- Security
- Applicant records

Functionality

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Set effective dates for information.	No effective date information was provided for names or locations.	Users can set effective date ranges for names and locations, and communication information for vendors, employees, and transactions.	Information is kept up to date.
Have multiple address books.	Only one address book could be created per virtual company.	An organization can create multiple address books to store common party records in the same place.	Party records can be organized by record type, and specific party records can be made available only to specific teams or legal entities.
Synchronize with Microsoft® Outlook®.	Only minimal address information was synchronized.	Contact synchronization with Microsoft Outlook is enhanced, and multiple address purposes can be defined for multiple addresses.	Party records can contain address records that are used by the party for more than one reason.

Security

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Secure party data according to user roles.	Security information was based on the companies that the user had access to.	Permissions to address books are granted based on users' teams or legal entities.	Security settings for address book permissions are tighter and more specialized.
Import address reference data.	Table import was used to import address reference data.	Data is validated when it is entered, and users can set a default address based on ZIP/postal codes.	Data is validated when it is entered and can be used to set default addresses.

Applicant records

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create records for new applicants, existing applicants, and existing workers.	Not supported	Users can enter application and new applicant information, and can modify existing applicant and existing worker records.	Processing applications is streamlined.
Create an application for an existing applicant.	Applications were associated with applicants, employees, and contacts.	Applications are associated only with applicants, and applicant records can be created directly from the Applicant form.	Creating applications is streamlined.
Create an applicant record by using information from an existing address book record.	Applicant information could only be entered manually.	Applicant records can be created for an existing address book party record.	Manual data entry is reduced for applicants whose information is already stored in the address book.

More information

For more information about the address book framework, see the whitepaper titled Implementing the address book framework for Microsoft Dynamics AX 2012 applications.

Products

In Microsoft Dynamics AX 2012, new products can be defined and released to individual companies. Also, an item is now always based on a product definition. In Microsoft Dynamics AX 2009, items could be created without using a formalized definition process.

Overview

Item	Description
Required	Conditionally required. If you are using this feature in a previous version of Microsoft Dynamics AX, significant changes have been made to it, and you must review this topic.
Feature areas affected	• Inventory management • Product information management
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

A product definition level is added as a mandatory step in the item creation process, and all items are associated with a product definition.

Special considerations

Items are based on product definitions, so product definitions are required for all items in Microsoft Dynamics AX 2012.

Comparison with Dynamics AX 2009

The inventory process has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Products and product variants
- Product release
- Product translations
- New division of the inventory dimension group

Products and product variants

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create and maintain definitions for products and master definitions for sets of products at the shared company level.	Not available, because item definitions were created directly in the item table.	Items are always based on product definitions, and product definitions can be shared across companies.	Creating products is centralized, and all of the products and product variants that are available in the entire organization are displayed.
Generate product variants based on product masters.	Available as item dimension combinations, however, it is difficult to administer which legal entities have access to which variants.	New items can be created as product variants, which are based on an associated product dimension setup.	An overview is provided of the product variants that are traded.
Configure product variants by using a product configuration technology.	Available, but does not include the configuration technology option.	Product definitions include information about when and how variants are configured.	A user can control the configuration strategy of an item through the product definition.
Standardize items by using product definition templates.	Not available	A product definition record can be saved as a template.	A product definition template can be used to help standardize items.

Product release

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Share product definitions across companies.	Not available	Product definitions can be authorized for use in multiple companies.	A product repository can be centrally controlled.
Maintain open product releases.	Not available	A release can be repeated after an error is corrected, or the release of a product can be postponed.	The release process and the timing of product releases can be controlled.

Product translations

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Translate product names and information.	Only product descriptions were translated.	Product names, product variant names, and the description attributes for a product definition are displayed on a customer invoice.	Accommodates a better understanding of the actual product definition.

New division of the inventory dimension group

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Set up separate product, storage, and tracking dimension groups.	Items were associated with one inventory dimension group, where all three types of dimensions were set up.	The setup of inventory dimensions for items is flexible and involves separate specification of the following: • Product dimensions for item characteristics that are associated with the product definition • Storage and tracking dimensions for a location-specific setup that is associated with the physical handling of items in companies.	The setup of the storage and tracking dimension groups can be either centralized or decentralized.

More information

For more information about Item-Product data, seethe white paper titled Implementing the Item-Product data management framework for Microsoft Dynamics AX 2012 Applications.

Employees

Employees are now a type of worker. A worker can be a person who is either a contractor or an employee. Multiple tables throughout Microsoft Dynamics AX 2012 have been renamed or changed to reflect this change in the conceptual model.

Overview

Item	Description
Required	Conditionally required. If you are using this feature in a previous version of Microsoft Dynamics AX, significant changes have been made to it, and you must review this topic.
Feature areas affected	Human resources
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

Enhanced effective date patterns have been added to track past, current, and future transactions that relate to the worker record. You also can hire, transfer, and terminate workers more easily now.

It is easier to move a worker's employment records from one legal entity to another, and it is easier to track a worker's employment history.

Special considerations

Employees and contractors are now shared entities. The worker table (HcmWorker) is no longer assigned to a specific data area ID. You can use the employment record (HcmEmployment) to assign a worker to multiple legal entities. You can also use XDS security policies to mimic containment of the worker data by legal entity.

The following information must also be considered:

- You can use security roles to provide self-service capabilities for workers through Enterprise Portal.
- Worker status is now derived from employment status.
- Work centers are no longer part of the Employee table.
- Competencies are associated with the person, not with the virtual network. Also, competencies are shared across legal entities.
- The Delete personal information option in the Employee Wizard has been removed.
- You can still assign absence and compensation functionality to a data area ID. Therefore, the absence and compensation functionality is contained through the current legal entity context. When you modify absence and compensation information for a worker, you must be logged on to the legal entity that you want to record the absence and compensation records in.

Comparison with Dynamics AX 2009

This feature has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Human resources
- Signature authority
- Inventory

Human resources

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Hire applicants as workers.	Multiple steps were required to complete the hiring process.	Fewer manual steps are required to hire an applicant.	You can be sure that new hires are properly onboarded into the organization.
Terminate a worker's employment.	Multiple steps were required to complete the termination process.	Fewer manual steps are required to terminate a worker's employment.	There may be fewer errors in reporting, compensation, and payroll after a worker's employment is terminated.
View an employee's history.	Not supported	Users can track past, current, and future transactions related to a worker's employment history.	A comprehensive historical record of the worker's employment history is displayed.
Transfer a worker to a new position.	Multiple steps were required to complete the transfer process.	The process for transferring workers from one position to another is streamlined, and the transfer history is recorded.	You can be sure that workers are properly transferred, and that hiring managers have the information that they need to manage this step of the transition process.
Move a worker's employment from one legal entity to another.	Multiple steps were required to move an employee from one legal entity to another legal entity.	Fewer manual steps are required to move a worker from one legal entity to another legal entity.	This process is more intuitive, and less manual work is required to move a worker's employment record from one legal entity to another legal entity.
View human resources reports that contain information from multiple legal entities.	Not supported	You can view human resources reports that include information from multiple legal entities.	You do not have to log on to a different legal entity to view reports for that legal entity.

Signature authority

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Grant spending authority to employees for business expenses, and grant approval authority to managers for approving business expenses.	Basic support was provided for spending and approval limits.	Advanced configuration and administration capabilities are added.	Companies can enforce corporate spending and approval limits at a more granular level.
Submit self-service requests for spending and approval limits.	Not supported	Employees can request a signing limit for business expenses, and managers can request an approval limit via the employee portal.	The process for requesting and approving spending and approval limits by using workflow is automated and simplified.

More information

For more information about Employees and the Human Resources Framework can be found in the white paper titled Implementing and Updating the Human Resources Framework for Microsoft Dynamics AX 2012 Applications.

Help server

Whereas previous versions of Microsoft Dynamics AX provided Help documentation through files stored on each client computer, the Help system in Microsoft Dynamics AX 2012 is client-server-based. The primary component of the Help system is the Help server, an Internet Information Services (IIS) virtual application running inside your network. The Help server stores and manages the Help files that are shipped with the product, and custom Help files written for your Microsoft Dynamics AX implementation. Microsoft Dynamics AX 2012 also includes a Help viewer, which is accessed through the Microsoft Dynamics AX client, and displays Help topics. You can search the documentation hosted by the Help server. The Help viewer also provides access to additional Microsoft Dynamics AX Help hosted on the World Wide Web.

Overview

Item	Description
Required	Yes
Feature areas affected	• Architecture • Client • Installation • Upgrade
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

The architecture of the Help system provides the following benefits:

- You can more easily add custom topics to the Help system.
- You can enable anyone in your organization to create Help documentation.
- You can more easily apply and distribute documentation updates from Microsoft, a partner, or any other publisher.
- You can use search to view Help documentation that is located on your network or on the web.

Special considerations

The Help server must be installed on a computer that is running Internet Information Services (IIS). When a Help topic is requested by a Microsoft Dynamics AX client, the request is sent to the Help server. The Help server locates the topic and sends it to the client, so that it can be displayed in the Help viewer on the client computer.

To enable the customization of Help documentation, you must add a folder to the Help server and instruct writers to place documentation files there. A writer who publishes documentation must have security permissions to copy files to that folder.

Comparison with Dynamics AX 2009

The Help system has changed considerably since Microsoft Dynamics AX 2009. Microsoft Dynamics AX 2012 includes changes to the following:

- Addition of the Help server
- Help documentation from multiple sources
- Enhanced search capabilities
- Custom Help documentation

Addition of the Help server

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create Help documentation that replaces or supplements the topics provided by Microsoft.	Changes to Help topics were possible but cumbersome, and required recompilation of the .chm files.	Users, system administrators, and developers can create and publish files that contain customized Help documentation.	You can use HTML or Microsoft Word documents to create custom Help documentation that reflects the needs of your organization.
Distribute updates to the Help documentation to users.	You had to install the updated .chm file on each client computer.	Documentation updates are available to all client computers when the update is installed in a single location on the Help server.	You can more easily manage your Help documentation and ensure that each client has access to the same documentation.
Install the Help server during the installation or upgrade of Microsoft Dynamics AX.	Not applicable	The Help server is a new core component.	The installation process is simplified.

Help documentation from multiple sources

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
View Help documentation produced by more than one publisher.	Adding documentation to the .chm files was difficult, so Help documentation was often located in separate files.	The Help viewer automatically retrieves documentation from all publishers.	Users can access all of the documentation for a topic, and the documentation can automatically include documentation from Microsoft, partners, developers, and writers in your organization.
View network-hosted Help files.	Help topics were packaged into .chm files that had to be installed on each client computer.	The Help system is a client-server-based system, and topics are hosted on a server inside your network.	The deployment and maintenance of Help documentation is simplified.
Access web-based help in the Help viewer.	Although links in the .chm files could retrieve web-based help, you could not use search to include content from the web.	The Help viewer provides links to web-based help, and you can use it to search for content on the web.	Help can include more specialized or up-to-date documentation from the web.

Enhanced search capabilities

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Add keywords to Help topics to improve topic discoverability.	Changes were possible but required recompilation of the .chm files	Search on the Help server is powered by the Windows Search Service, which supports customizable keyword searching and full text searching.	Search results are more accurate, informative, and resemble results from web search engines.
View rich search results.	Search results from the .chm files were lists of titles without summaries.	Search results contain topic titles, topic summaries, and links to additional sources of Help documentation.	You can quickly find the documentation that applies to your search request. In addition, the search terms that you enter are automatically passed along if you move to a web search.
Use search from the Microsoft Dynamics AX client application to find Help topics.	Not supported	The search results of the client application include relevant Help topics.	You can use search in the client application to find documentation about a specific task or object.
Filter searches by publisher or type of documentation.	You could not use the search capabilities of the .chm files to filter searches by publisher or document type.	You can filter search results in the Help viewer.	You can use filters to limit search results to documents from a specific publisher. In addition, you can specify whether you want to include or exclude documentation for developers or users.

Custom Help documentation

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Create new Help documentation.	Changes to Help documentation were possible but cumbersome, and often required recompilation and replacement of the .chm files.	Users, system administrators, and developers can create Help documentation for the Help server.	Help documentation is produced that better suits the needs of your organization.
Use Microsoft Word to create Help documentation.	Not supported	You can use Word to create documentation that you can publish to the Help server.	You can use Word to create Help documentation. You can quickly create documentation that is customized to the needs of your organization.
Use HTML or text editors to create Help documentation.	Not supported	The Help viewer uses HTML to display Help documentation.	You can use any HTML or text editor to produce a documentation file that you can publish to the Help server.
Use Microsoft Dynamics AX labels in your Help topics.	Including labels was possible but required recompilation of the .chm files.	Developers can insert labels from the client user interface into customized Help topics.	Your custom documentation matches what the user sees on the client.
Hide topics from other publishers.	You could remove topics from the .chm file, but you then had to recompile and redistribute that file.	You can hide Help documentation that does not apply to your organization.	Users see the Help documentation that is most relevant to the needs of your organization.

Microsoft Dynamics AX 2012 glossary

Microsoft Dynamics AX 2012 features a new application-specific glossary and an improved user experience. The glossary provides immediate, filtered access to defined domain and application terms and concepts that are specific to this version. It is also easier to search the glossary and view entries, and users can now provide feedback about the main glossary or individual glossary entries.

Overview

Item	Description
Required	Optional. You may or may not use this feature, depending on how you run your business.
Feature areas affected	All
Stakeholders	Business decision makers Technical decision makers Implementation team members ISVs/developers Partners

New functionality

The Microsoft Dynamics AX 2012 glossary comprises the following:

- One glossary that contains all glossary entries
- Individual topics for each individual glossary entry in the glossary

Special considerations

Users of the Microsoft Dynamics AX 2012 glossary must be familiar with the following:

- Industry-specific domain terminology and concepts
- Industry-specific application (IT) terminology and concepts

Comparison with Dynamics AX 2009

The Microsoft Dynamics AX glossary has changed considerably since Microsoft Dynamics AX 2009. For Microsoft Dynamics AX 2012, the Microsoft Dynamics glossary has been completely revised.

Microsoft Dynamics AX glossary

What can you do?	Microsoft Dynamics AX 2009	Microsoft Dynamics AX 2012	Why is this important?
Review domain-specific and application-specific terms and concepts as they relate to Microsoft Dynamics AX.	The glossary included term entries that were specific to Microsoft Dynamics AX 2009 and other products.	The glossary includes only domain-specific and application-specific term entries for Microsoft Dynamics AX.	Glossary entries are precise and relevant to the product.
Browse or search the glossary terms.	The search functionality was limited.	Search keywords have been added to the overall glossary and the individual glossary entries.	Search and search results are improved for easier use.
Offer feedback about the overall glossary or individual glossary entries.	Feedback options were limited.	The glossary publication includes a centralized list of all glossary entries, and it includes one entry for each glossary term in the overall glossary.	There is more flexibility and detail for feedback.

Deprecated features

The deprecated features section provides details about each feature that has been removed from the application in this version, or that is planned for removal in the subsequent versions. There are deprecated features in the following feature areas:

- Setup
- Server
- Services and AIF
- Client
- MorphX
- Visual Studio
- Business process, workflow, and analytics
- Human and capital management
- Financial management
- Sales and marketing
- Project management and accounting
- Supply chain management
- Procurement and sourcing

Microsoft Business Solutions Perimeter Network Configuration Wizard

The Microsoft Dynamics AX 2009 installation CD includes the Microsoft Business Solutions Perimeter Network Configuration Wizard. However, this was removed from the installation CD for Microsoft Dynamics AX 2012.

Overview

Item	Description
Reason for deprecation	Microsoft Dynamics AX 2012 supports flexible authentication mechanisms, which eliminate the need to configure a perimeter network.
Replaced by another feature	No. The wizard is no longer included on the installation CD. Administrators should use flexible authentication, instead.
Modules affected	All
Changes to installation	The Microsoft Business Solutions Perimeter Network Configuration Wizard has been removed from the installation CD for Microsoft Dynamics AX 2012.
Changes to upgrade	This change does not affect application upgrade.

Reporting Tools and Microsoft Dynamics AX Enterprise Portal Tools

In Microsoft Dynamics AX 2009 and earlier versions, Reporting Tools and Microsoft Dynamics AX Enterprise Portal Tools are required components that must be installed for full Microsoft Dynamics AX functionality.

Overview

Item	Description
Reason for deprecation	Microsoft Dynamics AX 2012 eliminates the need for custom tools and relies on Microsoft Visual Studio Tools for these functions, instead.
Replaced by another feature	Yes. The feature is no longer available, and standard Microsoft Visual Studio Tools can be used, instead.
Modules affected	All
Changes to installation	Reporting Tools and Enterprise Portal Tools have been combined into Visual Studio Tools.
Changes to upgrade	This change does not affect application upgrade.

Unsupported platforms

Microsoft Dynamics AX 2009 provides support for a number of operating systems and tools. Microsoft Dynamics AX 2012 does not provide support for certain operating systems and tools that were previously supported.

Overview

Item	Description
Reason for deprecation	Microsoft Dynamics AX cannot run properly using these operating systems or tools.
Replaced by another feature	Yes. Microsoft Dynamics AX provides support for a number of newer operating systems and tools.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change may affect application upgrade depending on which features are currently in use in your environment.

Database

The database server is the computer where the SQL Server software is installed and Dynamics AX data is stored. In Microsoft Dynamics AX 2012, the database server hosts the Dynamics AX 2012 database, the SharePoint databases, and the databases used for reporting and analytics. Microsoft Dynamics AX 2012 does not provide support for the following platform:

- SQL Server 2005

Server operating system

The following operating system is no longer supported to host server or database components in Microsoft Dynamics AX 2012:

- Windows Server 2003

Client operating system

The following operating system is no longer supported to host the Microsoft Dynamics AX 2012 client:

- Windows XP

Application Object Server (AOS)

Application Object Server (AOS) is the server component that runs the business logic and handles communication between the client and the database. The AOS can be hosted on all server operating systems. Microsoft Dynamics AX 2012 does not provide support for the following components:

- Visual C++ 2005 Runtime
- Visual C++ 2008 Runtime

Note: We support only Visual C++ 2008 SP1.

Enterprise Portal server

Also referred to as the Dynamics AX Web Server in Microsoft Dynamics AX 4.0, the Enterprise Portal server provides intranet/extranet/internet access to the Dynamics AX system, which is accessible using a browser. Enterprise Portal can be hosted on supported server operating systems. In Microsoft Dynamics AX 2012, the following components are not supported with Enterprise Portal:

- Windows SharePoint Services 3.0
- Microsoft Office SharePoint Server 2007

Note: Enterprise Portal can be installed only on 64-bit server operating systems because the supported versions of SharePoint Server can only be installed on 64-bit computers.

Enterprise Portal client

The following browsers are not supported for Enterprise Portal in Microsoft Dynamics AX 2012:

- Windows® Internet Explorer® 6.0
- Windows® Internet Explorer® 7.0
- FireFox 2.0
- FireFox 3.0
- Apple Safari (all versions)

Note: Microsoft Dynamics AX supports all browsers supported by SharePoint, with the exception of Apple Safari. All restrictions on the level 2 browser support for SharePoint apply to Enterprise Portal as well.

Analysis services integration

The computer running SQL Server Analysis Services is used for Dynamics AX cubes. The cubes in Dynamics AX 2012cannot be used with the following version of SQL Server:

- SQL Server 2005

Reporting services integration

The machine running SQL Server Reporting Services is used for Microsoft Dynamics AX reporting. The reports in Microsoft Dynamics AX 2012 cannot be used with the following version of SQL Server:

- SQL Server 2005

Web services on IIS

Web services on IIS, formerly Application Integration Framework (AIF) Web services, enable Microsoft Dynamics AX integration with other applications (such as CRM) or processes (such as sales order submission). The Microsoft Dynamics AX 2012 Web services do not provide support for the following component:

- .NET Framework 3.5

Synchronization proxy and synchronization service for Microsoft Project Server

The synchronization proxy coordinates data updates between a Project database and the synchronization service. The synchronization service is a Microsoft Dynamics AX server component. The synchronization proxy and the synchronization service do not provide support for the following component:

- Microsoft Project Server 2007

Visual Studio Tools

The Visual Studio Tools for Microsoft Dynamics AX combine all the developer tools, including the Enterprise Portal development tools, reporting tools, and the modeling tools, and allows developers to customize various Microsoft Dynamics AX artifacts using Visual Studio. In earlier versions of Microsoft Dynamics AX, these were split into Enterprise Portal development tools and reporting tools. The Visual Studio Tools do not provide support for the following component:

- Visual Studio 2008

More information

For more information about system requirements, see the white paper titled System requirements.

Oracle database support

Microsoft Dynamics AX 2009 provides support for the Oracle database platform. Microsoft Dynamics AX 2012 does not provide support for the Oracle database platform.

Overview

Item	Description
Reason for deprecation	Microsoft Dynamics AX 2012 does not support the Oracle database platform. Limiting database support to specific versions of the Microsoft SQL Server database platform allows for gains in AOS performance using Microsoft SQL Server specific options. The following is a list of the supported versions of the SQL Server database platform: • SQL Server 2008 64-Bit Enterprise • SQL Server 2008 64-Bit Standard • SQL Server 2008 64-Bit Enterprise SP1 • SQL Server 2008 64-Bit Standard SP1 • SQL Server 2008 64-Bit Enterprise SP2 • SQL Server 2008 64-Bit Standard SP2 • SQL Server 2008 R2 64-Bit Enterprise • SQL Server 2008 R2 64-Bit Standard • SQL Server 2008 R2 64-Bit Datacenter
Replaced by another feature	No. Support for the Oracle database is no longer available.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Setup parameters

Microsoft Dynamics AX 2012 and future versions do not provide support for a number of command-line parameters.

Overview

Item	Description
Reason for deprecation	Support for these command line parameters is being removed because underlying feature support was removed.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Microsoft Dynamics AX 2012 and future versions do not provide support for the following command line parameters:

- Application Region
- AosApplicationPath
- DbServerType
- DbOracleSchemaPassword
- DbOracleHostName
- DbOracleConnectService
- DbOracleDatabaseId
- DbOracleTCPIP
- DbOracleSchema
- InstallWorkflow
- RemoveWorkflow
- WorkflowWebSite
- WorkflowAosAccounts
- InstallReportingServicesExtensions
- RemoveReportingServicesExtensions
- ReportingServicesConfigureIIS
- ReportingServicesInstance
- InstallAnalysisServicesExtensions
- AnalysisServicesInstanceName
- AnalysisServicesReplaceDatabases
- InstallEnterprisePortalTools
- RemoveEnterprisePortalTools
- InstallReportingTools
- RemoveReportingTools
- InstallComConnector
- RemoveComConnector
- InstallBizTalkAdapter
- RemoveBizTalkAdapter

More information

For more information about command line parameters, see the topic called Setup parameters on TechNet.

Microsoft Dynamics AX domains

A domain in the Microsoft Dynamics AX system is a group of company accounts. You use domains to set up specific user permissions for a group of company accounts.

Overview

Item	Description
Reason for deprecation	Initially, the domain feature was added as a mechanism to group companies together to grant permissions to them easily without having to explicitly grant access to individual companies. This support was required because Microsoft Dynamics AX did not have a way to model the organization structure or a way to base security on an organization structure. Architectural changes in Microsoft Dynamics AX 2012 provide the framework to enforce security controls using the Organization Model structure, thereby making the domain feature obsolete.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. The organization model and the new extensible data security framework use the extensible data security to support hierarchies.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	Upgrade scripts are provided that create hierarchies that are mapped to a domain and then assign the companies in the domain to a hierarchy of the same name.

More information

For more information about the organization model and the new extensible data security framework in Microsoft Dynamics AX 2012, see the product-wide feature topic on Organization model and Data security.

For more information about the Organization model, see the white paper titled Implementing and Extending the Organization Model in Microsoft Dynamics AX 2012.

Record-level security

Record-level security (RLS) builds on the restrictions enforced by user group permissions. With user group permissions, you restrict the menus, forms, and reports that members of a group can access. Record-level security enables you to restrict the information that is shown on reports and in forms.

Overview

Item	Description
Reason for deprecation	This feature will be deprecated in the next version of Microsoft Dynamics AX. It is still functional in the current version. A new framework for data security, called Extensible Data Security, provides all the functionality that the RLS feature provided, but provides more security controls and provides major functionality that is missing from the RLS feature.
Replaced by another feature	Yes. The feature was replaced by the Extensible Data Security (XDS) feature, which provides all of the capabilities that RLS provided. In addition, with XDS, developers can write more powerful queries to restrict the data that users can access. The restrictions are more secure, and they are applied not only to the UI, but at the server level, also. The restrictions can be based not only on the fields in the table that users are accessing, but on data in other tables, as well. This becomes increasingly important as the tables become more normalized in each version.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	The existing RLS conditions are not automatically migrated to the new model because they are based on user groups and companies, whereas the new security framework is global. RLS conditions were very granular, due to the limitations of the framework. Therefore, it makes sense to manually convert them to the new framework because they can now be written more efficiently.

More information

For more information about data security in Microsoft Dynamics AX 2012, see the product-wide feature topic on Data security.

Client-side batch framework

The batch framework in Microsoft Dynamics AX 4.0 and earlier versions required an active client connection to run batch jobs. End users could submit batch jobs, but the batch jobs were not run until a batch operator ran a "batch processing form" and left the client running while the job was run.

Overview

Item	Description
Reason for deprecation	The functionality provided by this feature was limited. In Microsoft Dynamics AX 2009, a new server-bound batch framework was introduced that enabled batch jobs to run on the server without requiring a client. This framework is more stable and has better performance than the client framework, and it provides a variety of new features. In addition, batch jobs can be run without consuming a client license.
Replaced by another feature	Yes. A new server-side batch framework was introduced in Microsoft Dynamics AX 2009. This framework provides all the capabilities of the client-side batch framework but is more stable, has better performance, and provides much richer functionality in terms of job scheduling and execution. The client-side batch framework is still supported in Microsoft Dynamics AX 2012, but support will be removed in the next version.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Security keys and related APIs

Security keys are the permissions that control access to functionality within the application and are set for individual user groups and users.

Permissions determine who can access menus, forms, reports, and tables.

Developers can call the security key–related APIs to determine whether users have access to a particular security key and the level of access that they have.

Overview

Item	Description
Reason for deprecation	The security model has been changed in Microsoft Dynamics AX 2012. The new security model uses the concept of roles, duties, and privileges. Developers can create privileges and add various securable objects to them. This change enables Microsoft Dynamics AX to move to a standard role-based security model and provides greater flexibility and manageability.
Replaced by another feature	Yes. The feature was removed, and a replacement feature is available. Security keys have been replaced by role-based security. Role-based security enables a developer or administrator to create privileges, duties, and roles, and assign permissions to various resources, based on the security requirements. The framework also automatically identifies the resources being accessed by some base objects, such as forms, web controls, service operations, and reports. Developers are not required to use security keys to group these related objects. As a result, the administrator can easily grant access without having to determine which security keys were set by the developer. All of the APIs that were based on security keys were removed together with the security keys, and were replaced with APIs that identify access based on objects.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	Any code that calls APIs to check for access to security keys or for the existence of security keys must be upgraded to use the new APIs. Objects that use security key–to–configuration key mapping for licensing can upgrade the configuration keys for the objects by running scripts that are provided.

More information

For more information about role-based security in Microsoft Dynamics AX 2012, see the product-wide feature topic on Role-based security.

Duplicate company feature

In Microsoft Dynamics AX 2009, the Company accounts form contains a duplicate company feature that enables a user to duplicate the data for the company.

Overview

Item	Description
Reason for deprecation	The underlying architecture of Microsoft Dynamics AX 2012 was modified, and these modifications required the duplicate company feature to be deprecated. The organization model represents a paradigm shift in Microsoft Dynamics AX 2012. In Microsoft Dynamics AX 2009, most of the application data was related to the company or DataAreaID concept, and it was easy to duplicate this data by traversing all tables where the SaveDataPerCompany metadata property was set to True. Because of the changes resulting from the new organization model, the data is not purely related to legal entities, and a company is semantically equivalent to a legal entity. The data is related to one or more types of organizations, or to none (shared tables). Therefore, the duplication of data based on the property is not valid.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature. Although there is no replacement duplicate company feature, a company can still be used as a template to create other companies. By using the import and export feature, users can create duplicate reference, setup, and master data by copying data between two companies. For demo data, the import and export feature can be used to replicate a company from one environment in another environment, or in the same environment. Users can also make further changes to create an appropriate demo scenario in the new company.
Modules affected	None of the modules are directly affected.
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

RunBase

In Microsoft Dynamics AX 2009 and earlier versions, the formletter class controls the posting form (RunBase), creates parm table records and journal records, performs the actual posting, and controls printer settings.

Overview

Item	Description
Reason for deprecation	The functionality provided by the RunBase framework is limited and had to be refactored.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. The RunBase framework has been replaced by the Business Operations Framework, which is more robust and has significant performance improvements.
Modules affected	All
Changes to installation	There is no effect on application installation.
Changes to upgrade	There is no effect on application upgrade.

Add Service Reference in the MorphX AOT

In Microsoft Dynamics AX 2009 and earlier versions, the Add Service Reference feature enabled the consumption of external service references from within X++ code.

Overview

Item	Description
Reason for deprecation	The MorphX feature, which consumed external services, had severe limitations. Because there has been a strategic shift toward making .NET development more mainstream for Microsoft Dynamics AX 2012, the consumption of external services is now done in Visual Studio .NET, by using the *Add Service Reference* feature available in Visual Studio. Microsoft Dynamics AX 2012 dramatically improves interoperability from .NET to X++.
Replaced by another feature	Yes. Use the Add Service Reference feature in Visual Studio .NET to consume the external service via a service proxy in Visual Studio .NET. The resulting managed project can be added to the AOT by using the Microsoft Dynamics AX Application Explorer, and it then becomes available for consumption in X++.
Modules affected	All
Changes to installation	Any existing service references used in X++ code may have to be refreshed and recompiled for consumption by using the Managed Project artifacts.
Changes to upgrade	X++ code that references service proxies added by using Add Service Reference in Microsoft Dynamics AX 2009 MorphX must be revised and recompiled.

AIF endpoints

The concept of AIF endpoints was previously used to group a set of policies and processing options for XML-formatted integration messages that flow in and out of Microsoft Dynamics AX.

Overview

Item	Description
Reason for deprecation	Major conceptual changes in Application Integration Framework (AIF) have led to a simplified model for configuring and managing integrations in Microsoft Dynamics AX 2012. The top-level concept counts have been reduced from about 17 to 2. Additionally, all proprietary Microsoft Dynamics AX integration concepts have been removed and replaced by industry-standard concepts.
Replaced by another feature	Yes. This feature has been rolled into the concept of integration ports. Ports not only subsume the concept of AIF endpoints, but they also have all of the address-related settings that were earlier set on AIF channels.
Modules affected	All
Changes to installation	The AIF configuration that takes place during installation is easier than the configuration in Microsoft Dynamics AX 2009. All proprietary Microsoft Dynamics AX concepts have been removed in favor of industry-standard concepts. Detailed documentation is planned for this area.
Changes to upgrade	All integration solution applications that were written to use AIF endpoints no longer function after upgrade. These applications must be recompiled after they are configured to point to the new AIF ports that replace endpoints. After upgrade, the administrator must also manually complete the configuration settings on the ports created by the upgrade.

More information

For more information about Services and AIF, see the product-wide feature topic Services and Application Integration Framework (AIF).

BizTalk Adapter for Microsoft Dynamics AX

The BizTalk adapter enabled BizTalk Server to interface and integrate with Microsoft Dynamics AX AOS.

Overview

Item	Description
Reason for deprecation	The BizTalk adapter is no longer required to interface and integrate with Microsoft Dynamics AX AOS. Therefore, the BizTalk adapter is not shipped with Microsoft Dynamics AX 2012. All integrations that currently use this adapter must be recompiled and reconfigured to use the built-in WCF adapter that shipped with BizTalk Server starting with BizTalk Server 2006 R2.
Replaced by another feature	This feature was deprecated because it was no longer necessary. All services in Microsoft Dynamics AX 2012 are 100 percent WCF-compliant. Because all services are WCF-compliant, the BizTalk Server can directly communicate with Microsoft Dynamics AX by using the built-in WCF adapter. An external additional adapter component is no longer required.
Modules affected	Application Integration Framework (AIF)
Changes to installation	Any existing integration solutions involving BizTalk orchestrations through the BizTalk adapter must be updated to use the WCF adapter instead. These orchestrations must be recompiled and redeployed.
Changes to upgrade	Existing BizTalk orchestrations that use the Microsoft Dynamics AX BizTalk adapter generate errors and fail after upgrade.

More information

For more information about Services and AIF, see the product-wide feature topic Services and Application Integration Framework (AIF).

Data Crawler

In Microsoft Dynamics AX 2009, the Data Crawler provided data search capabilities.

Overview

Item	Description
Reason for deprecation	The Data Crawler has been deprecated in favor of a different search mechanism in Microsoft Dynamics AX 2012.
Replaced by another feature	Yes. The Data Crawler has been replaced by the Search feature, which enables searching across data and metadata (forms and reports).
Modules affected	Client
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

More information

For information about Enterprise Search in Microsoft Dynamics AX 2012, see the Enterprise Search content on TechNet.

DynamicsAXGeneralLedgerClass Members

The DynamicsAXGeneralLedger class contains methods to enable opening specific forms within the application. Due to changes in Microsoft Dynamics AX 2012, two members need to be replaced to enable access to new functionality. If these members are called on a Microsoft Dynamics AX 2012 installation they will return failure. This applies to the following members:

- OpenGeneralLedgerBudgetWindow
- OpenGeneralLedgerTransactionWindow

Overview

Item	Description
Reason for deprecation	The data model for Microsoft Dynamics AX 2012 has significantly changed interaction with certain forms and classes. The existing members of the class do not allow for passing the necessary information to Microsoft Dynamics AX to open forms with the proper context.
Replaced by another feature	Yes. Two new members will be added to the DynamicsAXGeneralLedger class to replace Microsoft Dynamics AX 2009 functionality. The signature of these members will enable passing all necessary information to open forms with the correct context.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

.chm Help files

In Microsoft Dynamics AX 2009 and earlier versions, Help content was available in the HTML Help Files node in the AOT, in the form of .chm files.

Overview

Item	Description
Reason for deprecation	The functionality provided by this feature was limited. A new Help system that provides improved customization scenarios is replacing the legacy system.
Replaced by another feature	Yes. The feature is no longer available, and a replacement feature is available. The HTML-based Help files are being replaced with a more robust Help server that provides Help content to all clients from a centralized location, in HTML and other formats.
Modules affected	All
Changes to installation	A web service that hosts the Help content is installed when setup.exe is executed. To plan for the installation, verify that you have an IIS server that can host the Help server.
Changes to upgrade	Legacy properties and elements in the AOT are removed during the upgrade. To plan for the upgrade, verify that you have an IIS server that can host the Help server.

More information

For more information about the Help Server, see the product-wide feature topic Help server.

X++ Reporting Framework

Microsoft Dynamics AX 2009 and earlier versions supported the X++ reporting framework, which was used to create custom reports in Microsoft Dynamics AX. The X++ reporting framework is being deprecated in Microsoft Dynamics AX 2012 and will not be available in future versions.

Overview

Item	Description
Reason for deprecation	The functionality provided by the X++ reporting framework was deprecated for the following reasons: • Lack of charting. • Lack of support of using non-Microsoft Dynamics AX datasources. • Lack of support for interactive reports. • It is a non-industry standard solution.
Replaced by another feature	SQL Server Reporting Services is now the primary reporting platform for Microsoft Dynamics AX.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	When you upgrade to Microsoft Dynamics AX 2012, reports based on the X++ reporting framework are copied to the Microsoft Dynamics AX 2012 system, but they are not upgraded. We recommend that you use a Reporting Services report (provided with Microsoft Dynamics AX 2012) as a template and customize it to meet your needs.

More information

For more information about reporting changes in Microsoft Dynamics AX 2012, see the product-wide feature topic on Reporting.

Microsoft Dynamics AX 2009 reports

Overview

Item	Description
Reason for deprecation	SQL Server Reporting Services is now the primary reporting platform for Microsoft Dynamics AX. The out-of-the-box reports that are provided with Microsoft Dynamics AX have been converted so that they run on the Reporting Services platform. All reports were evaluated, and some reports are not being provided in this version, because, for example, multiple reports were consolidated into a single Reporting Services report, or the same data can be printed from a form.
Replaced by another feature	SQL Server Reporting Services
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	Reports are copied but are not upgraded from Microsoft Dynamics AX 2009 to Microsoft Dynamics AX 2012.

More information

For information about the Microsoft Dynamics AX 2009 mapping to Microsoft Dynamics AX 2012 reports, see Mapping Microsoft Dynamics AX 2009 Reports to the Microsoft Dynamics AX 2012 Version.

Microsoft Dynamics AX 2012 and future versions will not provide the reports in the table below. This list of reports is preliminary, based on current expectations, and is subject to change without notice.

Deprecated reports

Deprecated reports	Deprecated reports	Deprecated reports
ACOWrkCenterCapacity_BR	KMActionPlan	SalesFreightSlip
AssetBalanceReportColumns	KMBSCOverview	SalesPackingSlip
AssetBookCompare	KMCollection	SMAAccrueperiodLineReport
AssetTaxStatistic	KMConnectionType	SMACustomerSchedule
AxdGenerateAxdQueryHelper	KMEPQuestionnaireResultGroupGraph	SMAHourConsumption
BankReconciliation	KMEPQuestionnaireResultReport	SMARepairByTechnician
BankStatement11	KMEPQuestionnaireStatisticsLineList	SMARepairObjectHistory
BOMCostGroupSource	KMGamePlan	SMAResolutionByDiagnosis
CCStatReport	KMGameplanLastNews	SMAResolutionBySymptom
Cheque	KMKnowledgeAccountSched	SMASalesPriceSubscription
Chequelayoutreport_BR	KMKnowledgeAccountStatement	SMAServiceAgreement
CompositeTestReport	KMKnowledgeJournal	SMAServiceBOMHistory

Deprecated reports	Deprecated reports	Deprecated reports
COSEDSStructure	KMKnowledgeOpenTransaction	SMAServiceBOMLines
COSHierarchy	KMKnowledgeTableIndicator	SMAServiceContract
COSLedgerReference_LT_CLT_Rep	KMQuestionnaireStatisticsResultPrint	SMAServiceLevelAgreement
COSLineStructure	LedgerAccountSum_FR	SMAServiceObjects
COSVersion	LedgerBalanceSheetDimPrint	SMAServiceOrder
CustInPaymNO	LedgerBalanceSheetDimPrint	SMAServiceOrderCounters
CustInterestNote	LedgerBalanceSheetDimPrint_CN	SMAServiceStageProgress
CustPhoneList	LedgerBalanceSheetPrint	SMAServiceTasks
CustReportTransferPrice_BR	LedgerBalanceSheetPrint	SMASubscriptionCreateReport
CustVendCommunicationReport_IT ReplaceThisText	LedgerBudgetReport	SMASubscriptionReport
CustVendOutPaymNL_DisketteLabels	LedgerBudgetReportWithRevisions	SMATemplateBOMLines
DimensionSetRulePerCollection	LedgerBudgetTrans	smmActivityListDate
DimensionSetRulePerHierarchy	LedgerInAccountStatementAT_EDIFACT	smmActivityNone
DispatchDocuement	LedgerTransAccountVoucher_FR	smmActivityPerQuotation
EPCustRevenue	LoTestResult	smmActivityTurnover
EPCustRevenue	LoTestRLS	smmBusRel
EPEmplTableList	NewINDRG23APartI	smmBusRelActivities
EPInventTableByQty	NewINDRG23APartII	smmBusRelActivityLast
EPInventTableBySales	NonSalaryReturn	smmBusRelContacts
EPInventTableByTime	NumberSequenceReference	smmBusRelTurnover
EPProjJournalTransEmpl	PBAPartOf	smmCampaignTarget
EPSalesByPerson	PBAPrintGraphic	smmCampaignTargetResponse
EUSalesListBE	PBAPrintGraphicSalesQuotationTable	smmPhoneInboundCalls
ForecastPurch	PBAPrintGraphicSalesTable	smmPhoneOutboundCalls
ForecastPurchActual	PBAUserProfiles	smmQuotationPrognosisLostCause
ForecastPurchItem	Position	smmQuotationPrognosisProd
ForecastSales	PriceDiscCustExtern	smmQuotationPrognosisSales
ForecastSalesActual	PriceDiscTable	smmQuotationPrognosisWonCause
FreeTextInvoice_BR	PriceList	smmSalesUnitMembers
HRMCourseCertificate	PriceListAll	smmTMCallList
HRMDueLoan	ProdBalanceAccount	smmTMCallListStatus
HRMEducationGroup	ProdCalcVarianceTrans	smmTMCallListTelemarketingResponse
HRMEmployeeEmploymentDismiss	ProdDelay	SuppItemTable
HRMEmplResponsibility	ProdEfficiencyProcess	SysFilePrintout
HRMEPAbsenceEmplDue	ProdGroup	SysHelpIndexBrokenLinks
HRMEPCourseCalendar	ProdInProcessCosting_NA	SysHelpIndexNoPages

Deprecated reports	Deprecated reports	Deprecated reports
HRMEPCourseSessionTrack	ProdJobCard	SysHelpIndexPagesWithoutKeywords
HRMEPCourseType	ProdJournalBOM	SysPrintCode
HRMEPCourseType	ProdJournalJob	SysRecordLevelSecurity
HRMEPCourseTypeGroup	ProdJournalProd	SysReportAuto
HRMEPDueLoan	ProdJournalRoute	SysSecurity
HRMEPEmployeeCV	ProdLedgerConciliation	SysSQLCheckSetup
HRMEPGoalAlarm	ProdParmCostEstimation	SysSqlStatus
HRMEPVirtualNetworkDueCertificate	ProdParmHistoricalCost	SysTestJobTable
HRMEPVirtualNetworkIdByOrganization	ProdParmJobScheduling	SysUserLogin
HRMTeamsByOrganization	ProdParmOprScheduling	TaxDeviation_BE
HRMVirtualNetworkDevelopmentPlan	ProdParmRelease	TaxListDiskReportBE
HRMVirtualNetworkGroup	ProdParmReportFinished	TaxPackagingTaxCust
HRMVirtualNetworkIdByJob	ProdParmStartUp	TaxPurchaseTaxDetails
INDExciseCENVATCredit	ProdTableJour	TaxReconciliationReport
INDExciseER	ProdTablePostingCosting	TaxReport_UK
INDPLARegister	ProdVariance	TaxReportEdivat
INDReceipt	ProjInvoice	TaxReporting_TH
INDReport26	ProjListPriceCost	TaxWithholdMonthlyReportIT
INDReport27E	ProjListPriceHourCost	TDSReport27_IN
INDRG23APartI	ProjListPriceHourSales	TradeBLWIReport
INDRG23APartII	ProjListPriceRevenueSales	TrvAdvanceReturn
INDRG23APartIIReport	ProjListProjConsumptionProjActivity	TrvEmplAdvance
INDRG23APartIIReportN	ProjListProjCustTable	TrvEmplBalance
INDRG23APartINew	ProjListProjProfitLossProjActivity	TrvExpenseList
INDRG23APartIReportN	ProjListProjTransLayout	TrvRequisition
INDRG23CPartI	ProjListProjWIPProjActivity	tutorial_ColourLines
INDRG23CPartII	ProjListTransHour	tutorial_CustomizedSumDescription
INDRG23CPartIIReportN	ProjPriceList	tutorial_Date
INDRG23CPartIReportN	PurchBlanket	tutorial_FontInfo
INDRG23D	PurchCollectionLetterList	tutorial_HelloWorld
INDTDSCustTrans	PurchHeading	tutorial_Joins
INDTDSCustTransSum	PurchInvoiceNF_BR	tutorial_JoinsExtended
InventBatchExpired	PurchLinesExtended	tutorial_NotesSpanningPages
InventDimAXReportAdapterTest	PurchPackingSlip	tutorial_Positioning
InventDimPhys	PurchPurchaseOrder	tutorial_Prompt
InventDimPosted	PurchSupplyCapacity	tutorial_Properties
InventFiscalLIFOValuation	PurchVariencesVendor	tutorial_Reset

Deprecated reports	Deprecated reports	Deprecated reports
InventGroupPhys	RAssetReportInventoryCard	tutorial_Resources
InventGroupPosted	ReqExplosion	tutorial_RunbaseReport
InventJournalTrans	ReqPO	tutorial_RunbaseReportStd
InventJournalTransTransfer	ReqTransOverview	tutorial_SectionTemplateCust
InventoryLedger	ReturnCycleTime	tutorial_SectionTemplateVend
InventPackagingMaterialFeeCalc	ReturnStatRanking	tutorial_SumPerSubField
InventPackagingMaterialWeights	ReturnVolume	tutorial_SumPerSubFieldDate
InventPackagingMaterialWeightsPurch	RFIDInventSerialLabels	VENDORINDReport26
InventProdComR2	RFIDPalletLabels	VendReportTransferPrice_BR
InventProdComR3	RG23APartI	WarrantyCreditNote
InventProdComR4	RG23CPartI	WarrantyDebitNote
InventProdComR5	RouteCostCategory	WMSShipmentAddresses
InventProdComR6	RouteCostCategoryOverview	WMSShipmentAddressesTransferOrders
InventSiteActivate	RouteOpr	WorkCalendar
InventSiteDimensionLinkAccountValidation	RouteOprPartOfRoute	WorkTime
InventSpecPhys	RouteOprTable	WrkCtrGroups
InventSpecPosted	RouteTable	WrkCtrGroupsLedger
InventStdCostVariance	RouteVersion	WrkCtrPartOfOperation
InventTransList	SalesBlanket	WrkCtrPartOfProdRoute
InventTransList	SalesByState	WrkCtrPartOfTaskGroup
InventTransOnOrder	SalesContractShipment	WrkCtrProperty
InventTransOrdered	SalesCustItemStatistics	WrkCtrTaskGroup
IT_InventFiscalLIFOInternal	SalesDeliverySlip_BR	XRefNamesReference
Job		xRefPathCount
KMAction		
KMActionAlarm		

Application Hierarchy Tree (AHT)

In Microsoft Dynamics AX 2009, the Application Hierarchy Tree is used to inspect types and their hierarchical structure, such as a class that extends another class.

Overview

Item	Description
Reason for deprecation	The Application Hierarchy Tree was based on a Help control that has been deprecated in Microsoft Dynamics AX 2012.
Replaced by another feature	Yes. The code has been rewritten and the feature is now called the Type Hierarchy Browser. The overall user interface remains the same, but the tool is now hosted inside the MorphX environment as an MDI child. The tool has also been extended to support table inheritance and navigation to listed element members, such as methods. Furthermore, a dockable variant, called the Type Hierarchy Context, can be used to provide contextual hierarchy information when users navigate the AOT.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Code Explorer

In Microsoft Dynamics AX 2009, the Code Explorer enables code and the components of application objects to be browsed by using hyperlinks.

Overview

Item	Description
Reason for deprecation	The Code Explorer was based on a Help control that has been deprecated in Microsoft Dynamics AX 2012. Because of the overlap with the Application Hierarchy Tree and its replacement, the Code Explorer was not ported.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Print from AOT and Editor

In Microsoft Dynamics AX 2009, users can print AOT nodes as .xpo content and code as a report.

Overview

Item	Description
Reason for deprecation	The capability to print relied on non-SSRS reporting support, which is deprecated in Microsoft Dynamics AX 2012. Because the feature mainly (except in the case of code) prints .xpo content, which can be manually printed, and because the feature is infrequently used, no investment has been made to implement support in Microsoft Dynamics AX 2012.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature. As a workaround, nodes can be exported as .xpo files and then printed manually.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

X++ editor

In Microsoft Dynamics AX 2009, the X++ editor is used to write X++ code in MorphX.

Overview

Item	Description
Reason for deprecation	The X++ editor had limited capabilities and was deprecated to make way for a new implementation of the X++ editor, with new features.
Replaced by another feature	Yes. The feature has been deprecated, and a new X++ editor, based on the Visual Studio 2010 editor control, has been introduced. Although the editor script extension is still supported, extensions to the legacy editor UI are no longer supported.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

AOD files replaced by SQL Server repository

The layer-based application object files (AOD files) have been replaced by a dedicated SQL Server database, which is referred to as the model store. All application elements are in the model store. For developers, the storage is transparent. The Setup program creates the model store by using the application elements from Microsoft.

Overview

Item	Description
Reason for deprecation	The use of a state-of-the-art database back end, such as SQL Server, made the proprietary database (the application object database and its AOD files) a bottleneck in terms of development, maintenance, and performance.
Replaced by another feature	Yes. AOD files and the proprietary database have been replaced by the SQL Server database. AOD files from Microsoft Dynamics AX 2009 and Microsoft Dynamics AX 4.0 can be loaded into the model store during upgrade or later from the Developer menu in MorphX. AXUTIL.EXE is a command-line tool for managing metadata that is "in transit," such as for exporting, installing, and even uninstalling metadata.
Modules affected	Developer and Partner Tools
Changes to installation	The required changes are handled by the Setup program, which installs the models (the new logical packaging of metadata) in the model store in SQL Server. The model store is an integral part of the application database.
Changes to upgrade	The upgrade process is semantically very similar to the process in previous versions, but a few new steps are required. The AOD files and directories are no longer copied from the previous version to the application directory, but must now be imported into the model database. In addition, we recommend that you import them into a secondary database named the "alternate" database, which effectively mimics the directory for code compare.

Split layer functionality in the AOT

In Microsoft Dynamics AX 2009, you could view multiple layers in the AOT.

Overview

Item	Description
Reason for deprecation	In Microsoft Dynamics AX 2012, the capability to view multiple layers in the AOT has been deprecated because the feature was infrequently used and tended to cause instability in the MorphX environment.
Replaced by another feature	No. The feature is no longer available. For most of the known use cases, the Code Compare tool is a valid replacement and is easily accessible by pressing CTRL+G.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Team Server

In Microsoft Dynamics AX 2009, the ID server, called the Team Server, hosts the allocation of new object IDs. The Team Server can be shared from multiple Application Object Server (AOS) installations to provide unique assignment of IDs across multiple project development environments.

Overview

Item	Description
Reason for deprecation	With the introduction of installation-specific IDs, the IDs of tables, classes, and other ID-based AOT elements are now assigned at installation time, not at development time.
Replaced by another feature	No. The feature is no longer available because it has become obsolete. The Team Server can no longer be installed.
Modules affected	Developer and Partner Tools
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Visual SourceSafe

Microsoft Dynamics AX 2009 and earlier versions support Microsoft® Visual SourceSafe® as a version control mechanism.

Overview

Item	Description
Reason for deprecation	Support for Visual SourceSafe for version control is being removed in favor of Microsoft® Visual Studio® Team Foundation Server 201, because Team Foundation Server provides enhanced functionality.
Replaced by another feature	Support for Visual SourceSafe remains in Microsoft Dynamics AX 2012, but will be removed in the next version of Microsoft Dynamics AX. We recommend that you now use Visual Studio Team Foundation Server 2010 instead of Visual SourceSafe. White papers about upgrade paths from Visual SourceSafe to Team Foundation Server are available on PartnerSource.
Modules affected	All, including the development workspace.
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Reporting Project

In Microsoft Dynamics AX 2009, a Reporting Project is used when users edit .moxl files, which are representations of report models in files.

Overview

Item	Description
Reason for deprecation	In Microsoft Dynamics AX 2012, the development experience is being aligned with repository-centric development for Microsoft Dynamics AX. Therefore, all model data is stored in the repository and directly edited on the repository.
Replaced by another feature	Yes. A new project, called Model Project, enables direct editing of any reporting data on the repository, without requiring local .moxl files.
Modules affected	Developer and Partner Tools
Changes to installation	None. This feature is installed as a Visual Studio integration during setup.
Changes to upgrade	This change does not affect application upgrade.

The X++ Workflow API

In Microsoft Dynamics AX 2009, the X++ Workflow API is used to programmatically create workflows.

Overview

Item	Description
Reason for deprecation	The functionality provided by this feature was limited.
Replaced by another feature	Yes. The feature was deprecated, and a replacement feature is available. The X++ Workflow API was replaced by the managed workflow API because the following features were planned for Microsoft Dynamics AX 2012: • Additional workflow features, such as advanced flow controls • A new managed workflow editor, which required a managed programmatic interface Therefore, the entire workflow API was refactored as a managed API, and support for the new workflow features and workflow editor was added.
Modules affected	Business process and workflow
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

More information

For more information about workflow, see the Workflow section in the appendix.

SQL Server Report Builder integration with Microsoft Dynamics AX report models

SQL Server Report Builder is a tool distributed with SQL Server Reporting Services. It enables a user to create simple reports by using Microsoft Dynamics AX data. This feature was introduced in Microsoft Dynamics AX 4.0 and was also included in Microsoft Dynamics AX 2009.

Overview

Item	Description
Reason for deprecation	This feature was very infrequently used, and was difficult to set up and configure. Reports created by using this feature performed poorly in real-life scenarios.
Replaced by another feature	This feature is no longer available in Microsoft Dynamics AX 2012. Microsoft Dynamics AX 2012 supports ad-hoc reporting by using OLAP cubes. Business users can also leverage the capabilities of Excel PowerPivot to generate ad-hoc business reports.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Payment services using Authorize.Net

Integration with two payment services was introduced in Microsoft Dynamics AX 2009—Authorize.Net and Payment Services for Microsoft Dynamics® ERP. For Microsoft Dynamics AX 2012, only Payment Services for Microsoft Dynamics ERP will be supported.

Overview

Item	Description
Reason for deprecation	Cybersource has purchased Authorize.Net and we anticipate that those services will be integrated into their suite of products at some future date. In Microsoft Dynamics AX 2012, we are now offering a single of point of access to Cybersource through Payment Services for Microsoft Dynamics® ERP.
Replaced by another feature	No. The feature is no longer available and there is no replacement feature.
Modules affected	Accounts payable Accounts receivable
Changes to installation	The installation of Microsoft Dynamics AX 2012 will not change. However, Authorize.Net will no longer appear as a valid payment service.
Changes to upgrade	A hotfix will be released for Microsoft Dynamics AX 2009 that will allow customers to switch from Authorize.Net to Payment Services for Microsoft Dynamics ERP. After a customer has obtained an account with Payment Services for Microsoft Dynamics ERP, Microsoft Dynamics AX 2009 will continue to use Authorize.Net to process existing sales orders with credit cards that have been authorized using Authorize.Net. All new orders will be processed using Payment Services for Microsoft Dynamics ERP.

More information

For more information about payment services in Microsoft Dynamics AX 2012, see the product-wide feature Payment Services for Microsoft Dynamics ERP.

Ledger budget

In Microsoft Dynamics AX 2009, Ledger budget is the name of the form and table where budget amounts for ledger accounts are captured.

Overview

Item	Description
Reason for deprecation	The budget functionality in Microsoft Dynamics AX 2012 was rewritten and extended to include additional functionality, such as budget control.
Replaced by another feature	Yes. Ledger budget has been replaced by budget register entries. Budget register entries enable budget amounts to be entered by using a header/line concept. An organization can do the following: • Determine which dimensions are available for budgeting. • Define budget codes that relate to budget types for an additional audit trail of changes to a budget. • Allocate a budget across periods. • Allocate a budget across dimensions. • Replicate budget amounts. • Use a web service for integrations to budget register entries. • Use the budget transaction approval workflow. • Use the Budget versus actual inquiry and report. • Create budget register entries by using Project, Demand, Supply, and Fixed asset budgets. **Note:** In Microsoft Dynamics AX 2009, a user could also transfer cost accounting budgets to Ledger budget. This is not supported in Microsoft Dynamics AX 2012 because the new dimension framework was not implemented in cost accounting in a way that enables data to flow outside of cost accounting.
Modules affected	Budgeting
Changes to installation	This change does not affect application installation.
Changes to upgrade	Preprocessing converts Ledger budget records to budget register entries in Microsoft Dynamics AX 2012.

More information

For more information about budgeting and budget control, see the product-wide feature topics Budgeting and budget control and Ledger and subledger lines and distributions.

Financial dimensions and LedgerTable

In Microsoft Dynamics AX 2009 and earlier versions, the LedgerTable form and table are used to create the chart of accounts. Financial dimensions enabled dimensions and dimension codes to be created and maintained for use on financial transactions.

Overview

Item	Description
Reason for deprecation	A new financial dimension framework has been implemented.
Replaced by another feature	Yes. The feature is no longer available and has been replaced with a new financial dimension framework.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	The upgrade process includes pre-upgrade steps for merging accounts and dimensions that have conflicts.

More information

For more information about financial dimensions, see the product-wide feature topic Financial dimensions.

EPBookkeeperRoleCenter

In Microsoft Dynamics AX, users are assigned to Role Centers based on user profiles, which are sets of default information for a specific role in the organization. Each user is assigned to a user profile, and a Role Center is specified for each profile. The Bookkeeper role is responsible for tasks, such as creating and paying vendor invoices, creating sales invoices, billing customers, recording customer payments, depositing payments into bank accounts, reconciling bank statements, printing financial statements, and closing the books at the end of the month.

- Default user profile: Bookkeeper
- Role Center page name: EPBookkeeperRoleCenter

Overview

Item	Description
Reason for deprecation	From the perspective of Microsoft Dynamics AX 2012 security roles, there is no Bookkeeper role. Therefore, the Bookkeeper role has been removed from BI cubes, and the Bookkeeper Role Center and the underlying Web parts have also been removed. In general, Role Centers themselves do not have security, but the securable items displayed on a Role Center may. The Accountant role has been identified as equivalent to the Bookkeeper role, based on the similarity of duties and privileges.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	Business Intelligence Client Enterprise Portal General ledger
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

More information

For more information about Role Centers, see: http://www.microsoft.com/dynamics/en/us/using/ax-finance-role-center.aspx

ExchangeRates

In Microsoft Dynamics AX 2009, the ExchRates table and form are used to create and maintain currencies and their exchange rates.

Overview

Item	Description
Reason for deprecation	New shared currency and exchange rate functionality has replaced the ExchRates table.
Replaced by another feature	Yes. The feature is no longer available, and has been replaced with shared currencies and exchange rates.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	As part of the pre-upgrade process, the user can fix any conflicts. For example, a conflict occurs if the same currency is used in multiple companies, but it is set up differently in each company.

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LedgerTrans table

In Microsoft Dynamics AX 2009, the LedgerTrans table holds the posted General ledger detail, which includes the vouchers, dates, ledger account, dimension codes, posting layer, and amounts.

Overview

Item	Description
Reason for deprecation	Because of architectural changes in the application, this table had to be refactored to support the new financial dimension and subledger journal frameworks.
Replaced by another feature	Yes. The feature has been deprecated, and the following new tables replace the LedgerTrans table: • GeneralJournalEntry • GeneralJournalAccountEntry • LedgerEntryJournal • LedgerEntry • SubledgerVoucherGeneralJournalEntry • LedgerEntryJournalizing
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	The LedgerTrans records are upgraded to the new data model, except in virtual companies, where the LedgerTrans table is in a TableCollection. If the LedgerTrans table is used in a virtual company setup, the upgrade fails, and you are instructed to contact your Partner or Support. The records must be moved out of the virtual company before upgrade.

More information

For more information about ledger and subledger lines, see the product-wide feature topic Ledger and subledger lines and distributions.

LedgerPeriod

In Microsoft Dynamics AX 2009, the LedgerPeriod table and form are used to create and maintain the fiscal periods for a company.

Overview

Item	Description
Reason for deprecation	Global organizations operate as different legal entities in different geographical areas. However, they share a lot of data, such as charts of accounts, currencies, exchange rates, and calendars. Defining this reference and master data once and sharing it across legal entities reduces the cost of maintaining such data across the organization. However, ledger periods, and the associated AssetCalendar tables, did not provide sufficient support for this scenario and have been replaced with more robust shared fiscal calendars. The following tables have been deprecated: • AssetCalendar • AssetCalendarPeriod • AssetCalendarYear • LedgerPeriod
Replaced by another feature	Yes. The feature is no longer available and has been replaced with shared fiscal calendars.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	Existing ledger periods and fixed asset calendars are upgraded to the new fiscal calendars. There is a pre-upgrade step where the user can rename the fiscal calendars.

More information

For more information about ledger and sub ledger lines, see the product-wide feature topic Ledger and subledger lines and distributions.

Country/region configuration keys

In Microsoft Dynamics AX 2009 and earlier versions, country/region configuration keys are used to enable and display country/region-specific features.

Overview

Item	Description
Reason for deprecation	The country/region configuration keys are installation-specific, and the real requirement was for control over the features available to individual companies in multinational scenarios. Also, the capability was needed to make features available based on the company’s location, the customer’s location, and so on. Country/region context was introduced to meet this requirement, and this feature replaces country/region configuration keys for control over feature availability.
Replaced by another feature	Yes. The feature remains only for backward compatibility. Although the feature will not be removed until the next version of Microsoft Dynamics AX, a replacement feature is already available. To control feature availability based on the location of the legal entity, Microsoft Dynamics AX 2012 uses the country/region associated with the legal entity’s primary address. For example, if the address of the legal entity is in Canada, users can see and work with Canada-specific features.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

More information

For information about how to use country/region configuration keys when you upgrade an existing version of Microsoft Dynamics AX to Microsoft Dynamics AX 2012, see the Upgrade Guide.

EU sales list transfer (Belgium)

In Microsoft Dynamics AX 2009, there are two EU sales list transfers, the standard EU sales list transfer and a separate EU sales list transfer for Belgium. The second of these is a country/region-specific function that enables the transfer of information to the EU sales list form, based on tax information.

Overview

Item	Description
Reason for deprecation	In 2010, a change in legislation in the European community required a new transfer function for the EU sales list. The new EU sales list transfer function is based on the functionality for Belgium, and it transfers data to the EU sales list form based on tax information.
Replaced by another feature	Yes. The feature has been removed in Microsoft Dynamics AX 2012 and replaced by the standard EU sales list transfer.
Modules affected	Financial Management GDL
Changes to installation	This change does not affect application installation.
Changes to upgrade	Users must check the existing tax code and tax group configuration. They may be required to set up new tax codes. In addition, they may be required either to change the groups assigned to service items, or to set up new item sales tax groups and assign them to services and/or categories. This must be done before any transactions are posted in Microsoft Dynamics AX 2012.

Date-effective records

In Microsoft Dynamics AX 2009, Employee/contractor, Job, Position, and Department (Organization) records are stored as date-effective records.

Overview

Item	Description
Reason for deprecation	The functionality provided by the feature was limited. The feature has been replaced with the new date-effective framework in Microsoft Dynamics AX 2012.
Replaced by another feature	Yes. The feature is no longer available, and a replacement feature is available. All of the records continue to be date effective, but they use a new date-effective framework. In Microsoft Dynamics AX 2012, both the date and time elements are exposed in the user interface.
Modules affected	Human resources
Changes to installation	This change does not affect application installation.
Changes to upgrade	Existing date-effective records are upgraded to the new tables that store these records. The processing of date-effective records is completed by the Microsoft Dynamics AX 2012 framework. **Note:** The table structure has been normalized in Human resources. One date-effective record may be split into multiple records, based on the new table definitions in Microsoft Dynamics AX 2012.

Delete personal information (employee and applicant)

In Microsoft Dynamics AX 2009, the Delete personal information feature provides a way to delete information related to employees and applicants, such as the name, Social Security Number, visa information, address, and education.

Overview

Item	Description
Reason for deprecation	Much of this information is stored in a global address book that is shared across the enterprise, and removing it can affect other data.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature. You can still delete personal information by manually removing individual records.
Modules affected	Human Resources
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Human Resources tab in Enterprise Portal

In Enterprise Portal for Microsoft Dynamics AX 2009, you can use the Human resources tab to view questionnaires and other performance management data.

Overview

Item	Description
Reason for deprecation	The functionality on this tab was incomplete and provided limited benefit to human resources personnel.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature. However, the complete functionality is available in the client.
Modules affected	Human resources
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not impact affect upgrade.

Benefits

In Microsoft Dynamics AX 2009, benefits were set up by using the Benefits setup forms.

Overview

Item	Description
Reason for deprecation	The benefits functionality in Microsoft Dynamics AX 2009 was somewhat limited, and Microsoft Dynamics AX 2012 provides expanded benefits functionality.
Replaced by another feature	Yes. The feature is no longer available, and a replacement feature is available.
Modules affected	Human resources
Changes to installation	This change does not affect application installation.
Changes to upgrade	Existing benefits information is upgraded for use in the new benefits functionality.

Employees of the Work Center type

In Microsoft Dynamics AX 2009, employees can be one of three types: Employee, Contractor, or Work Center.

Overview

Item	Description
Reason for deprecation	Architectural changes impacted the employee type functionality.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature. In Microsoft Dynamics AX 2012, only workers of the Employee and Contractor types exist.
Modules affected	Human resources Supply chain management
Changes to installation	This change does not affect application installation.
Changes to upgrade	Work Center employees are not upgraded to Microsoft Dynamics AX 2012. Preprocessing upgrade scripts capture information, and you can take action on these records before completing the upgrade.

Visio Export for reporting relationships, locations, and organizational structure views

In Microsoft Dynamics AX 2009, you can export the reporting relationships view, locations view, and organizational structure view to Visio.

Overview

Item	Description
Reason for deprecation	Architectural changes and a new control were added to all three of the views. The new control enables more nodes to be displayed in the hierarchical structure. You can also create and modify nodes directly from the new control. The architectural changes would have required extensive changes to the Visio Export feature.
Replaced by another feature	No. The Visio Export feature is no longer available, and there is no replacement feature.
Modules affected	All
Changes to installation	This change does not impact application installation.
Changes to upgrade	This change does not impact application upgrade.

Telemarketing

In Microsoft Dynamics AX 2009, users can use the Telemarketing feature to create call lists that are based on table queries. Call lists can also be created from Marketing Automation.

Overview

Item	Description
Reason for deprecation	This feature is being removed because the functionality is limited.
Replaced by another feature	No. The Telemarketing feature remains in Microsoft Dynamics AX 2012, but will be removed in a future version of the product. In the next version, telemarketing records will be merged with call lists, and the call list functionality will be moved to the Marketing Automation license.
Modules affected	Sales and marketing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

TAPI integration

In Microsoft Dynamics AX, the Sales and marketing module, also known as the CRM module, includes functionality for incorporating a CTI (Computer-Telephony Integration) system by using the Microsoft Telephony API (TAPI) protocol. The CTI system registers and administers incoming and outgoing telephone communications.

Overview

Item	Description
Reason for deprecation	The functionality provided by this feature was limited.
Replaced by another feature	No. The feature remains in Microsoft Dynamics AX 2012 but will be removed in a future version of the product. No replacement feature is available at this time.
Modules affected	Sales and marketing
Changes to installation	The smmPhone component is longer installed.
Changes to upgrade	This change does not affect application upgrade.

Management Statistics

The Management statistics feature displays sales management information in graphs.

Overview

Item	Description
Reason for deprecation	The addition of SQL Server Reporting Services to Microsoft Dynamics AX, combined with the Microsoft Office integration, provides users with extensive graphing functionality.
Replaced by another feature	No. The feature remains in Microsoft Dynamics AX 2012, but will be removed in a future version of the product. No replacement feature is available at this time.
Modules affected	Sales and marketing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

CRM document handling

CRM document handling is an extension of the standard Microsoft Dynamics AX document handling that enables users to identify the author of a document and send documents as e-mail.

Overview

Item	Description
Reason for deprecation	CRM document handling is being integrated into standard Microsoft Dynamics AX document handling.
Replaced by another feature	No. The feature remains in Microsoft Dynamics AX 2012, but will be fully integrated with standard Microsoft Dynamics AX document handling in the next version of the product.
Modules affected	Sales and marketing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Transaction log

The Transaction log tracks table changes, such as who made the changes, and when they were made, to specific CRM entities and fields.

Overview

Item	Description
Reason for deprecation	CRM uses the database logging available in Microsoft Dynamics AX.
Replaced by another feature	No. The feature remains in Microsoft Dynamics AX 2012, but will be removed in a future version of the product. No replacement feature is available at this time.
Modules affected	Sales and marketing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Project activity hierarchy

In Microsoft Dynamics AX 2009, users can create a hierarchy of activities that consists of a summary of tasks (or levels) and their sub-activities in a tree view. This feature is only available in the Microsoft Dynamics AX client.

Overview

Item	Description
Reason for deprecation	Existing functionality in the service industry solution facilitates the creation of an activity breakdown structure for a project and provides additional capabilities related to resource scheduling. In the Project management and accounting module, activities can still be associated with projects, but they cannot be arranged hierarchically. Project activity hierarchies maintained through integration with Microsoft® Project Server 2010 are not affected.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available in the service industry solution.
Modules affected	Project management and accounting
Changes to installation	There is no effect on application installation.
Changes to upgrade	Customers upgrading from Microsoft Dynamics AX 2009 who do not install the Services Industry solution cannot see or modify their project activity hierarchy.

Purchase order subscription

Purchase order subscription is an order type that enables one purchase order to be processed multiple times. The feature works by renewing inventory transactions, thereby enabling new receipts on the same purchase order.

Overview

Item	Description
Reason for deprecation	The way that the subscription order is implemented is not compliant with the source document, distributions, and ledger budget.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	Code related to subscription order is removed. Potential customization in this area must also be removed. A white paper describing how to extend the new agreement framework to support recurring orders is forthcoming.

Blanket orders

In Microsoft Dynamics AX 2009, blanket orders are contractual obligations with a vendor to purchase a specific quantity or value of merchandise in exchange for a special discount. By using the blanket order, you can create purchase orders (release orders) and invoice items, as needed, until the contract is fulfilled.

Overview

Item	Description
Reason for deprecation	The blanket order feature had some limitations. Structural changes in Microsoft Dynamics AX required blanket order functionality to be deprecated.
Replaced by another feature	Yes. The feature is no longer available, and a replacement feature is available. This feature was replaced by purchase and sales agreements. Purchase and sales agreements are used to document the terms and conditions between a selling party and a buying party. An agreement expresses payment and delivery terms for a set of commitments. For example, the buying party commits to buying a specific volume of a product or service, such as 200 bikes, for a specific price. Alternatively, the buying party commits to buying a specific value, such as USD 1000, of a product or products in a specific category with a specific price discount. For every commitment on the agreement, there is a validity period in which the actual trading must be completed.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	You can upgrade blanket orders by using the upgrade scripts provided.

BOM item type BOM

In Microsoft Dynamics AX 2009, an item must be of the BOM item type for a bill of materials to be associated with it.

Overview

Item	Description
Reason for deprecation	Architectural changes in Microsoft Dynamics AX 2012 have changed the way that items are defined. Items have become products, and products require a product definition. The product definition consists of a few core characteristics that help identify the product. One of these characteristics is the product type, which indicates whether a product is tangible (an item) or intangible (a service or rights). In Microsoft Dynamics AX 2009, the item type indicated whether the product was tangible (an item), intangible (a service), and also the role that the item could have (BOM). To ensure that characteristics are product related, not product role related, the item type attribute was refactored to product type, and the BOM value was separated from the item and service values.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. Users must still be able to associate a bill of materials (BOM) with a product of the item type. In Microsoft Dynamics AX 2012, customers can associate a BOM with a product of the item type. After this association is made, users can use the new default order type on the default order settings to indicate whether the item that has an associated BOM must be procured or manufactured.
Modules affected	Inventory management
Changes to installation	This change does not affect application installation.
Changes to upgrade	When upgrading from Microsoft Dynamics AX 2009 to Microsoft Dynamics AX 2012, users must map existing items to new product definitions. As part of this process, they must decide whether the default order type must be purchase or production. The association with a BOM is maintained.

Configurable items

In Microsoft Dynamics AX 2009, a check box controls whether an item can be configured.

Overview

Item	Description
Reason for deprecation	Architectural changes in Microsoft Dynamics AX 2012 changed the way products are defined.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. As part of the new product definition concept in Microsoft Dynamics AX 2012, the process of defining a product has been made more explicit. Users select whether a product is a simple product or a product master. If a product is a product master, the user must specify the tool or method that is used to create product variants for that particular master.
Modules affected	Inventory management
Changes to installation	This change does not affect application installation.
Changes to upgrade	During the upgrade process from Microsoft Dynamics AX 2009 to Microsoft Dynamics AX 2012, configurable items are upgraded according to product master rules and are upgraded to product masters by using dimension-based configuration.

Item dimension group

In Microsoft Dynamics AX 2009, an item dimension encompasses all available item dimensions, including the following:

- Core item-related dimensions – Color, size, and configuration
- Tracking-related dimensions – Batch and serial number
- Storage-related dimensions – Site, warehouse, location, and pallet ID

Overview

Item	Description
Reason for deprecation	As part of the new core shared product definitions, the item dimensions (color, size, and configuration) had to be associated with the product, whereas the tracking and storage dimensions could be set up as either shared dimensions or legal entity–specific dimensions. The item dimension group was refactored, and the old grouping table was removed and separated into three individual groups. Any customization in Microsoft Dynamics AX 2009 that extends item dimensions must be refactored to accommodate the new table structure.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. In Microsoft Dynamics AX 2012, the item-related dimensions (color, size, and configuration) are defined as product dimensions, the tracking-related dimensions (batch and serial number) are defined as tracking dimensions, and the storage-related dimensions (site, warehouse, location, and pallet ID) are defined as storage dimensions.
Modules affected	Inventory management
Changes to installation	This change does not affect application installation.
Changes to upgrade	The upgrade process ensures that the core item configuration, and tracking and storage dimension values, are mapped to the new product dimension framework.

Edit dimensions form

In Microsoft Dynamics AX 2009, a user can use the Edit dimensions form to change dimension values for inventory transactions directly in the database. As a result, the user can introduce inconsistencies in inventory transaction data.

Overview

Item	Description
Reason for deprecation	The feature allowed manual overrides to database values, which could cause data integrity issues. In Microsoft Dynamics AX 2012 and future versions, users cannot make modifications directly to system-generated data.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	Inventory management
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Product builder

Users can use Product builder to create product models that can be used in a configure-to-order scenario.

Overview

Item	Description
Reason for deprecation	In Microsoft Dynamics AX 2009, Product builder uses X++ as the tool for writing rules and restrictions that apply to product models. This represents a potential elevation of privilege risk. Additionally, the design of Product builder does not scale well when the models grow in size, resulting in long response times for product configuration on sales order lines.
Replaced by another feature	Product builder will still be available for existing Product builder customers that upgrade to Microsoft Dynamics AX, but not for new customers. In Microsoft Dynamics AX 2012, Product builder was replaced with the Product configuration feature, which is constraint-based rather than rule-based. The Product configuration feature provides better support for reusability and multilevel product models. It also performs better than Product builder and eliminates elevation of privilege security threats.
Modules affected	Sales and marketing Enterprise Portal Project management and accounting Product information management
Changes to installation	This change does not affect application installation.
Changes to upgrade	For existing Product builder customers, upgrade of the existing Product models will happen as normal. It is possible to migrate a Product builder model to a Product configuration model. To do this, you must analyze the back-end tree of the Product builder model to identify the elements that should be included directly in the Product configuration model and those that must be implemented by using the dedicated product configuration API, PCAdaptor.

Product group for Procurement

In Microsoft Dynamics AX 2009, product groups are used on both the buying side and the selling side. In Microsoft Dynamics AX 2012, product groups are upgraded to procurement catalogs. The product groups are left as is for consumption on the selling side only.

Overview

Item	Description
Reason for deprecation	The functionality provided by this feature was limited.
Replaced by another feature	Yes. For buying-side procurement, the feature has been removed and replaced by procurement categories and procurement catalogs.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	Any product groups used in Microsoft Dynamics AX 2009 are upgraded to procurement categories and procurement catalogs during the upgrade process.

Compare request for quote replies form

In Microsoft Dynamics AX 2009, the Compare request for quote replies form (PurchRFQCaseCompare) lists all requests for quotations (RFQs). The user can select and compare multiple RFQ replies.

Overview

Item	Description
Reason for deprecation	The functionality contained in this form already exists on the RFQ list page and in the RFQ details forms. Therefore, this form is redundant.
Replaced by another feature	No. The feature is no longer available, and there is no replacement feature.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

Purchase requisition clean up

In Microsoft Dynamics AX 2009, the Delete purchase requisitions menu item is available in Accounts payable (Accounts Payable > Periodic > Clean up). This tool enabled users to delete purchase requisitions.

Overview

Item	Description
Reason for deprecation	As a result of architectural changes in Microsoft Dynamics AX 2012, purchase requisitions cannot be hard deleted, which renders the Delete purchase requisitions tool obsolete.
Replaced by another feature	No. Since the release of Microsoft Dynamics AX 2009, the Intelligent Data Management Framework (IDMF) for Microsoft Dynamics AX has been developed. In Microsoft Dynamics AX 2012 and future versions, we recommend that companies use the IDMF to purge and archive production data that is no longer required in the production system.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	This change does not affect application upgrade.

More information

For more informaiton about the Intelligent Data Management Framework for Microsoft Dynamics AX, see:

https://mbs.microsoft.com/Cms/Templates/document/General.aspx?NRMODE=Published&NRNODEGUID={ECAF89FE-3D52-4FFC-8CCF-D6E3D192D26F}&NRORIGINALURL=/partnersource/downloads/releases/AX_IDMF.htm&NRCACHEHINT=Guest&wa=wsignin1.0

Purchase requisition parameters

In Microsoft Dynamics AX 2009, purchase requisition setup is managed on the Purchase requisition tab of the Setup Parameters form in Accounts Payable.

Overview

Item	Description
Reason for deprecation	All purchasing-related parameters have been subsumed by Purchasing policy rules.
Replaced by another feature	Yes. The Purchase requisition control policy rule contains the parameters that define which fields are required to submit a purchase requisition to workflow, and also the parameters that define whether minimum, maximum, and multiple quantity constraints are enforced. The Purchase requisition to purchase order creation policy rule contains the parameters that define when purchase orders are generated automatically by the system.
Modules affected	Procurement and sourcing
Changes to installation	This change does not affect application installation.
Changes to upgrade	Any product groups used in Microsoft Dynamics AX 2009 must be upgraded to procurement categories. Additionally, product and category catalogs used in Microsoft Dynamics AX 2009 must be upgraded to procurement catalogs. Catalog policy rules and Category access policy rules can be used to scope the products and procurement categories that are available in different legal entities.

Approval and spending limits

Microsoft Dynamics AX 2009 provides basic support for approval and spending limits.

Overview

Item	Description
Reason for deprecation	The approval and spending limits feature in Microsoft Dynamics AX 2009 did not provide the level of granular expense and approval control required by some companies.
Replaced by another feature	Yes. The feature has been removed, and a replacement feature is available. The Signing Limits feature in Microsoft Dynamics AX 2012 provides advanced configuration and administration capabilities, which enable companies to enforce corporate spending and approval limits at a more granular level. Additionally, the Signing Limits feature enables spending and approval limit self-service requests to be submitted via the employee self-service portal. Employees can use self-service requests to request a signing limit for business expenses, and managers can use them to request an approval limit for approving employee expenses, thus automating and simplifying the process for requesting and approving spending and approval limits using workflow.
Modules affected	All
Changes to installation	This change does not affect application installation.
Changes to upgrade	There is an upgrade path from the Microsoft Dynamics AX 2009 feature to the corresponding feature in Microsoft Dynamics AX 2012.

More information

For more information about employees, see the product-wide feature topic Employees.

Task groups

In Microsoft Dynamics AX 2009, task groups are used for specifying alternative work centers that can perform similar tasks. In Microsoft Dynamics AX 2012, task groups are upgraded to resource capabilities.

Overview

Item	Description
Reason for deprecation	Architectural changes in Microsoft Dynamics AX 2012 introduced a new resource model and capability based scheduling, which made the task group concept obsolete.
Replaced by another feature	Yes. Task groups have been replaced by the more versatile concept of capabilities, which can be used for specifying resource requirements for operations. This enables the scheduling engine to choose between alternative resources that can perform similar tasks.
Modules affected	Manufacturing
Changes to installation	This change does not impact application installation.
Changes to upgrade	Any task groups used in Microsoft Dynamics AX 2009 will be upgraded to capabilities during the upgrade process. Since capabilities are shared across legal entities in Microsoft Dynamics AX 2012, the upgrade process allows for task groups to be consolidated across legal entities.

Multisite activation wizard

In Microsoft Dynamics AX 2009, the multisite functionality must be activated through the use of the multisite activation wizard. In Microsoft Dynamics AX 2012, the multisite functionality is always active, and for customers who are upgrading from Microsoft Dynamics AX 4.0, the multisite activation logic has been integrated into the upgrade process.

Overview

Item	Description
Reason for deprecation	In Microsoft Dynamics AX 2012 the multisite functionality is always active, so the multisite activation wizard is no longer needed.
Replaced by another feature	The multisite activation wizard is obsolete and has been removed. Multisite functionality will be activated as part of the upgrade process.
Modules affected	Manufacturing
Changes to installation	This change does not affect application installation.
Changes to upgrade	When upgrading from Microsoft Dynamics AX 4.0, multisite activation is an integral part of the upgrade process. Multisite functionality is also activated for customers who are upgrading from Microsoft Dynamics AX 2009 and who have not acquired the Logistics license. All other customers who are upgrading from Microsoft Dynamics AX 2009 will have to use the multisite activation wizard to activate the multisite functionality before upgrading to Microsoft Dynamics AX 2012.

Appendix: Non-product-wide feature descriptions

The following tables provide brief descriptions of features that are not classified as product-wide features in Microsoft Dynamics AX 2012. The tables are arranged by area and subarea, if applicable.

Table of Contents

Setup and upgrade

Setup and upgrade features	
What's New Heading	**What's New Statement**
Patchable Setup	In previous versions of Microsoft Dynamics AX, the Setup application and its related DLLs existed only on the DVD, and could not be updated through standard hotfixes or service packs. To modify Setup files, the user had to perform manual workarounds. In Microsoft Dynamics AX 2012, the Setup application is patchable. The application and its DLLs are installed on the computer as the first step in the installation process. Because the files are installed on the computer, service packs or hotfixes can be applied to the Setup files, just as they can to any other Microsoft Dynamics AX files. When Setup starts, it checks for a more recent version of the files and installs them, if they are available.
Verify Microsoft Dynamics AX configurations by using the Microsoft Baseline Configuration Analyzer	This version of Microsoft Dynamics AX includes a model and rule set for the Microsoft Baseline Configuration Analyzer. You can verify dozens of configuration settings across multiple features, including the Microsoft Dynamics AX database, Application Object Server (AOS), Enterprise Portal, and business intelligence. The tool generates a report with prescriptive guidance that can help improve the availability, security, and performance of your Microsoft Dynamics AX environment.
Manage batch servers, AOS clustering, and model database inventories by using Microsoft Dynamics AX Management Studio	With Microsoft Dynamics AX Management Studio, administrators can configure AOSs for batch processing, add AOSs to a cluster, and manage model database inventories.
Parallelization of bulk copy, synchronization, and post-synchronization	The bulk copy of data from your source system to the target system is done in parallel with the running of synchronization steps and post-synchronization scripts on the data. Parallelization transparently merges what used to be three steps into a single optimized step, which minimizes your total system downtime for upgrade. The system prioritizes the bulk copy, synchronization, and post-synchronization tasks by using an intelligent data-driven algorithm that you can also use to manually add weight to specific tasks and customize prioritization.

Client

Client features	
What's New Heading	**What's New Statement**
Document handling enhancements	You can attach a URL to a transaction and configure a workflow definition to route paper-based document files for review. The document file web service has been added and can be used to retrieve document file metadata and route the data to the appropriate parties by using workflow. You can enter document data, and the document file can be attached to the new transaction. This creates an audit trail for the original document. These enhancements can facilitate document handling for companies that are geographically dispersed and that want to maintain their paper-based documents in one location.
Enhanced search	This version of Microsoft Dynamics AX includes an enhanced search experience that enables users to retrieve data, forms, Help topics, and reports by using simple nouns, such as "Customer" or "Cash Flow Report," or specific data, such as a customer name, product ID, or telephone number. The search interface includes options to help you refine your search results, and you can also access information from a list of recent searches.

Microsoft Dynamics Online

Microsoft Dynamics Online Features	
What's New Heading	**What's New Statement**
Connect Gadget for Role Centers	This version of Microsoft Dynamics AX includes the Microsoft Dynamics Online Connect Gadget Web part for Role Centers. The Web part hosts a slide deck of links and information relevant to a user's role, including links to CustomerSource, community content, training materials, and Knowledge Base articles. A system administrator can add the Connect gadget to the Role Center master page, or users with the appropriate permissions can add the Web part to their personal Role Center page.

Workflow

Workflow features	
What's New Heading	**What's New Statement**
Automated tasks	You can now add automated tasks to your workflows. An automated task runs business logic and requires no human interaction. For example, an automated task can perform a credit check, run a report, or update a record.
Simplified installation	Workflow server components are no longer installed on a web server running Internet Information Services (IIS). Workflow server components are now automatically installed when you install Microsoft Dynamics AX Application Object Server (AOS).
Line item workflow support	A workflow can be created to process documents, or the line items on a document. For example, assume that you've created an approval workflow for timesheets. (We will refer to this workflow as the document workflow.) You can add a line-item element to that document workflow. When the line-item element is executed, each line item on the document is submitted for processing. You may want all of the line items processed by the same line-item workflow, or you may want each line item processed by a different line-item workflow.
Flow-control elements	Several new elements have been added to help you design workflows. These elements enable you to design workflows that have alternate branches or branches that run concurrently. These elements include: • **Conditional decision** — A point at which a workflow divides into two branches. The system will decide which branch to use by evaluating the submitted document to determine whether it meets a specified condition. • **Manual decision** — A point at which a workflow divides into two branches. A user must take an action, and the action taken will determine which branch is used to process the submitted document. • **Parallel activity** — A workflow element that includes two or more branches that run at the same time.
View work items that are based on specific business documents in one location	You can view work items for specific document types, such as invoices, purchase orders, and expense reports in one place, so that you can more efficiently process them. The ability to see all work items for a specific document type is especially important for high-volume documents. You can see all documents of a specific type that are assigned to you, to a work item queue that you belong to, or to a work item queue or queue group that you administer. You can filter the work items by date to help prioritize the tasks you have to do.
Workflow editor	The workflow editor is a graphical interface that enables you to create Microsoft Dynamics AX workflows by arranging workflow elements on a design surface similarly to how you would graphically model a business process using Microsoft Visio. You can add, delete, and reposition workflow elements that represent the tasks and approvals that make up the workflow. You can also add flow-controls, such as manual and automated decisions and parallel activities so that you can create complex workflows that exactly model the business processes you want to automate.

Workflow features	
What's New Heading	**What's New Statement**
View workflow history and tracking data that includes new workflow features	You can view workflow history and the status of an active or completed workflow and its elements, including data about new workflow features, such as advanced flow controls, automated tasks, line item approvals, and work item queues. You can view this data either in the Microsoft Dynamics AX client or in Enterprise Portal for Microsoft Dynamics AX.
Ability to assign workflow tasks to work item queues	A manual task can be assigned to a work item queue. A work item queue is a collection of documents that require processing. A queue must have users assigned to it. Those users will be responsible for monitoring the queue and processing the documents in it.
Notifications	The following changes have been made to improve the workflow notification system. • **Workflow-specific notifications** — Email templates are used to send workflow notifications. You can now create and use a specific email template for each workflow. This enables you to customize the message so that is appropriate for each workflow. • **Aggregated notifications** — With Microsoft Dynamics AX 2012, you can implement workflows for the line items on a document. Because line-item workflows may generate more email notifications, Microsoft Dynamics AX 2012 now enables workflow participants to aggregate their notifications for line items into a single email message.
Workflow performance analysis reports	A workflow online analytical processing (OLAP) cube is included with Microsoft Dynamics AX 2012. Using this cube, you can generate a report that shows how a workflow performs so that you can identify bottlenecks in processes. You also can determine if the workflow is adding efficiency to your business processes, and provide a means of comparing the automated workflow to the manual processes it replaced. The analysis focuses on showing how much work was done using the workflow and how much time it took to perform the business tasks that make up the workflow. By using these reports, you can modify your workflows and optimize their performance.

Enterprise Portal

Enterprise portal features	
What's New Heading	**What's New Statement**
Enhancements to Enterprise Portal	Administrators can deploy Enterprise Portal as part of a business's or organization's parent site, and automatically adopt the look and feel of the parent site, provided that the parent site is using a theme that is available in the SharePoint Theme Gallery. Administrators can apply new themes to Enterprise Portal pages by using .thmx files from the Microsoft SharePoint Theme Gallery. Several lookups on Enterprise Portal pages have been enhanced for better performance.

Enterprise portal features	
What's New Heading	**What's New Statement**
Enterprise Portal security	Enterprise Portal automatically grants and denies access to data and web pages, in accordance with the Microsoft Dynamics AX role and task security framework. Before users can view data or Enterprise Portal pages, administrators must configure Microsoft Dynamics AX security roles and tasks.
New user interface elements in Enterprise Portal	FactBoxes display information related to a selected record, or information displayed in a form or on a list page. You can customize the type of information that is displayed in FactBoxes.
Enterprise Portal deployment and upgrade enhancements	The following enhancements have been made for Enterprise Portal setup and deployment: • Enhanced initial setup and installation that no longer requires manual compilation of X++ classes • Capability to deploy changes to a web server by using the AxUpdatePortal utility or PowerShell commands • Capability to deploy changes from the Application Object Tree (AOT) on a 32-bit client to a 64-bit Windows Server by clicking a button • Automatic upgrade from Enterprise Portal on Windows SharePoint Services 3.0 or Microsoft Office SharePoint Server 2007 to Microsoft SharePoint Foundation or Microsoft SharePoint Server 2010 (after all other Microsoft Dynamics AX upgrade tasks are completed) • Capability to manage remote Enterprise Portal deployments from a Microsoft Dynamics AX client
Enterprise Portal enhancements	Administrators can configure Enterprise Portal vendor sites to authenticate users based on their Windows Live ID. In this way, administrators do not have to manage large numbers of external users in Active Directory. You also can bookmark a specific URL for a task page. Developers must note that Enterprise Portal no longer supports development in the X++ Web framework. Development of Enterprise Portal pages requires ASP.NET and the Microsoft .NET Framework.

Microsoft Office add-ins

Microsoft Office add-ins	
What's New Heading	**What's New Statement**
Microsoft Word integration supported by Microsoft Dynamics AX	This new feature enables you to use Microsoft Word to build templates and documents that combine the structured and unstructured information from Microsoft Dynamics AX.

Microsoft Office add-ins	
What's New Heading	**What's New Statement**
View and update data from Microsoft Office tools	You can use the add-in for Microsoft Excel and Microsoft Word to view, analyze, and update information in Microsoft Dynamics AX.
More enhancements to Microsoft Excel integration supported by the Microsoft Dynamics AX add-in	With the enhancements to this feature, you can update data from Microsoft Excel by using AIF Web Services. An opt-in checklist for built services is also available.

General ledger

General ledger features	
What's New Heading	**What's New Statement**
Print financial statements to Microsoft Excel	You can print financial statements to Microsoft Excel.
Multiple ledgers for multiple legal entities	Each legal entity has a separate ledger, where you define a chart of accounts, the accounting currency, the reporting currency, and the fiscal calendar for that legal entity.
Finance list pages and Finance reports changes	In Enterprise Portal, Finance-related list pages are included in the Sales and Procurement areas. The following list pages use standard list page elements, including Action Panes, FactBoxes, and preview panes: Customer invoices, Unpaid customer invoices, Latest invoiced items, Interest notes, Collection letters, and Vendor invoices. The following details pages use standard detail page elements, including Action Panes, FactBoxes, and FastTabs: Customer invoice, Interest note, Collection letter, and Vendor invoice. A new Finance reports list page provides access to financial reports in Enterprise Portal.
Shared exchange rates for the General ledger consolidation process	You can define multiple exchange rates between two currencies, and select a currency rate type for each range of accounts and company accounts that is being consolidated.
Reporting currency revaluation	The reporting currency is the accounting currency amount multiplied by the exchange rate. The reporting currency must be calculated and revalued, even if the exchange rate to the accounting currency does not change.

General ledger features	
What's New Heading	**What's New Statement**
Financial analysis cube enhancements	The following changes are included: • Data in the General ledger, Accounts payable, and Accounts receivable cubes can be analyzed as of a specific date. • The currency conversion process that is used to analyze financial cube data in Microsoft Excel has been updated. • The following General ledger KPIs are calculated on the basis of dates, not periods: Average Days Delinquent, Accounts Receivable Days Outstanding, Best Possible Days Sales Outstanding, and Collection Effectiveness Index. • Trend calculations for the following General ledger KPIs have been removed: Average Days Delinquent, Accounts Receivable Days Outstanding, Best Possible Days Sales Outstanding, and Collection Effectiveness Index.
Relieve encumbrances when you confirm purchase orders	When you confirm a purchase order that is generated from one or more pre-encumbered purchase requisition lines, it is posted to the general ledger. Any pre-encumbrances are also relieved.
Reason codes for purchase order transactions	You can now add reason codes to the posting transactions for purchase orders. Reason codes help explain why transactions were entered, such as why an order was returned, or why the amount that was received differs from the amount that was ordered.
Record purchase order encumbrances in the general ledger	When you confirm a purchase order, you can record the encumbrances in general ledger accounts, often to accrue liabilities. Most public sector organizations record encumbrance transactions to record accruals of liabilities for committed, or obligated, purchases. In the General ledger parameters form, you can select the Enable encumbrance processing check box to activate recording in ledger accounts. The ledger accounts that you record in are specified by posting definitions, and they are associated with the purchase order transaction by using the Transaction posting definitions form.
View and track encumbered amounts on purchase orders	When the encumbrance process is enabled, you can view the encumbered amounts, encumbrances that are relieved through invoice processing, and encumbered amounts that remain after invoice processing.
Create reports that display vendor invoices or customer invoices grouped by a selected financial dimension	The Open invoice transactions report and the Sales invoice journal report have been changed. They are now the Vendor invoice transactions report, which is created in Accounts payable, and the Customer invoice transactions report, which is created in Accounts receivable. You can create the reports to display transactions grouped by a selected financial dimension. You can select invoices for both reports by using a variety of criteria. Both reports include options to select invoices by date or date range, and you can display all invoices, only paid invoices, or only invoices that are in an open state.

General ledger features	
What's New Heading	**What's New Statement**
Create a reconciliation report of purchase order encumbrances	You can create a reconciliation report that is grouped by the general ledger chart of accounts dimension that you select. This report identifies differences between budget reservations for encumbrances and the corresponding encumbrances that are tracked in the general ledger. You can view either a detailed version of the report or only the differences. The detailed version shows totals by transaction or document number for all encumbrances. The version that displays differences shows only instances where the budget reservation amount for encumbrances does not balance with the corresponding encumbrance accounts in the general ledger.
Accounts payable payments and payment clearing	You can use posting definitions to record vendor payments for vendor invoices and promissory notes. For example, you can record a vendor payment by posting a vendor payment journal. The vendor payment journal can generate multiple transactions, using the distributions on the vendor invoice and the posting definitions to support pooled cash accounting. With bridged costing enabled on the method of payment, you can use a clearing account for payments to track checks or warrants that have been issued, but that have not yet cleared the bank.
Simplified calendar options	You can use the streamlined Fiscal calendars form to create multiple calendars in Accounts payable, Accounts receivable, General ledger, Project, and Inventory and warehouse management. Maintain all calendar types, including fixed asset and fiscal year calendars, in one form. You can define multiple closing periods for a specific date, which helps you better track and report on multiple audit adjustments.
Fiscal period enhancements	With the many enhancements to the fiscal period functionality, you can now use multiple fiscal years, enter multiple closing periods with the same starting and ending dates, and copy the setup of periods to the next year. You also can change a sequence of months more quickly. Multiple fiscal years are useful if, for example, you have a subsidiary agency that uses a different fiscal year than the rest of your organization, and you enter that agency's transactions in your company because you do not maintain a separate company for them. To accommodate these enhancements, the Periods and Fixed asset calendars forms have been removed and fiscal period functionality is included in the Fiscal calendars and Ledger calendar forms.
Create shared fiscal calendars for use by different entities	You can create and use calendars that are independent of your organization and shared by multiple legal entities. For example, an organization can create one or more calendars that can be used by different departments, and departments can select among any of the calendars created by the organization.

General ledger features	
What's New Heading	**What's New Statement**
New Treasurer Role Center	The Treasurer Role Center is a default home page that provides an overview of information that pertains to your work, such as your work list, frequently used links, and key performance indicator (KPI) information. It includes two new KPI reports: Treasurer asset analysis and Treasurer liabilities analysis. The treasurer's Role Center has the same four KPIs that the Role Centers for the controller, CFO, accountant, and accounting manager have, except the reports match the treasurer title: Treasurer profitability analysis, Treasurer operational efficiency, Treasurer short-term solvency, and Treasurer long-term solvency. This Role Center has pie charts for check information and outstanding debt, and a Fixed asset replacements list report. This Role Center uses existing General ledger cube measures and dimensions.
Updates to posting definitions	If your organization requires multiple offsetting entries for transactions, you can set up posting definitions that determine the balanced set of ledger posting entries that is generated, based on the originating entry for a transaction. You can set up posting definition versions that have date-effective ranges, and the criteria for matching account numbers can include account structures, dimensions enabled for budgeting, and accounts generated from account rules. Use transaction posting definitions to specify the posting definitions that are used, and to assign them to transaction posting types.
New distributions and budget-related functionality for year-end processing	You can close purchase orders in the fiscal year that is ending, open them in the next fiscal year, and create budget adjustments and carry-forward budget register entries.

Tax

Tax features	
What's New Heading	**What's New Statement**
Sales tax changes for vendor invoices in the Vendor invoice form	You can use a new parameter to preserve the sales tax information from the vendor, either through a service or through manual entry based on a paper invoice from the vendor. Otherwise, the calculated sales tax information may override the actual amounts in some situations.

Bank, budget, compliance, and fixed assets

Bank, budget, compliance and fixed assets features	
What's New Heading	**What's New Statement**
Export Letters of Credit	You can now mark a sales order for payment by using a Letter of Credit or an Import collection. You can update Letter of Credit and Import collection details, post a corresponding packing slip, and assign a shipment number. You can also indicate that the documents have been submitted, apply a payment, and generate a cash flow forecast for a sales order.
Letter of Guarantee	A Letter of Guarantee is an undertaking by a financial institution (the guarantor), such as a bank, to pay an agreed-upon amount of money to another person (the beneficiary) if the financial institution's customer (the principal) defaults on a debt or on its obligation to the beneficiary. The beneficiary must claim the guaranteed amount from the guarantor before the expiration of the Letter of Guarantee. To liquidate the agreement, the beneficiary submits the original Letter of Guarantee to the bank before the letter's expiration date. The Letter of Guarantee is nontransferable and applies only to the beneficiary whose name is included in the guarantee agreement. It helps customers do the following: • Create correct ledger entries and eliminate manual entry. • Generate a report that includes the bank facilities and utilization of those facilities. • Record the monetary and nonmonetary transactions involved and track the Letter of Guarantee balances. • Record the Letter of Guarantee cycle and track its expiration date and status.

Bank, budget, compliance and fixed assets features	
What's New Heading	**What's New Statement**
Import Letters of Credit and Import collections	You can now mark a purchase order for payment by using a Letter of Credit or an Import collection. You can then do the following: • Create, extend, or delete a bank facility agreement. • Update and amend Letter of Credit or Import collection details and insurance advice. • Print requests for banks to issue Letters of Credit, and retrieve shipment information. • Send insurance request notes to vendors. • Record Letter of Credit or Import collection amendments and insurance invoices. • Record and allocate Letter of Credit margins. • Receive shipments, update bank advice, and indicate shipping guarantees. • Register packing slips, and post and pay invoices. • View Letter of Credit reports.
Set a company bank as inactive	You can set a company bank as inactive for all transactions or for new transactions. Optionally, you can set the date when a company bank becomes inactive for new transactions, and when it becomes active again. When a bank is inactive for all transactions, no transactions are permitted for that bank.
Budget control integrated with general journal entry	If you are using budget control, you can validate spending based on approved limits. You can specify that each purchase or planned purchase is validated during processing to ensure that it does not exceed the budget funds that are available. You can use budget control for daily, allocation, and project expense account journal types. The vendor invoice recording journal and the vendor invoice approval journal can also be included in budget control. If you are using budget control for expense accounts, authorized users can override the available budget by transferring budget funds from other accounts. Those users can also reject purchases.
Enhanced budgeting	Customize how budget entries are transferred from other modules. Use new check boxes on the Budget parameters form to specify whether budget register entries that are created from a cross-module transfer have a draft or completed status when they are first created. You also can more easily identify newly transferred budget register entries in the Budget register entry form because they have a budget type that is similar to their origin. For example, budget register entries that are created from a fixed asset budget transfer have a budget type of Fixed assets.

Bank, budget, compliance and fixed assets features	
What's New Heading	**What's New Statement**
Ensure that purchases do not exceed approved budgets	Budget control enables you to validate spending based on approved limits. You can specify that each purchase or planned purchase must be validated during processing to ensure that it does not exceed the budget funds that are available. Budget verifications can be performed automatically, either when the purchase order lines are entered or when the purchase order is confirmed.
New reports to view and filter budget information	The Budget detail report shows all budget register entry by budget type, with totals by type. You can filter the report by budget model, date range, dimension, and status. The Budget funds available report displays the sum of each budget category for the selected dimensions and time period. You can filter the report by budget model, date range, and dimension focus. The Actual versus budget report compares budget amounts with actual balances. You can filter the report by budget model, dimension, date range, and dimension focus.
Transition from ledger budgets to budget register entries	Ledger budgets have been replaced with budget register entries. You can use budget register entries to enter budget amounts for dimensions that are defined for budgeting. You can categorize budget register entries by budget types, such as revisions, transfers, and original budget, so that you can more quickly understand how a budget changed. Ledger budget records are automatically converted to budget register entries.
Budget control integrated with accounts payable	If you are using budget control, each purchase or planned purchase is validated during processing to ensure that it does not exceed the budget funds that are available. When a purchase is made with a vendor invoice, any budget reservations are relieved for the budget of the distribution accounts on the purchase order. The vendor invoice distribution accounts and amounts are validated to determine whether budget funds are available. If the budget check is successful, budget tracking records with a category of actual expenditure are created. The entire cost of the vendor invoice line is evaluated, including any taxes or charges. The date on the vendor invoice line is associated with the appropriate fiscal period and budget interval to determine the budget period for validation.
Budgeting workflows	When you set up a review workflow, you can associate the workflow with a budget code to require budget register entries to use a review process. When a specified budget code is used on a budget register entry, a review process is required. You can define conditional statements for the review process to determine whether budget register entries are manually or automatically reviewed and approved. If you are using budget control, you can set up workflows so that a budget manager can approve budget register entries. Each budget account entry on a budget register entry can have its own review process. You can also set up rules that are independent of any review processes. For example, you can set up budget transfer rules to allow the transfer of budget funds among only a subset of departments. If budget transfer rules are violated, budget register entries can be assigned to a specific user for approval.

Bank, budget, compliance and fixed assets features	
What's New Heading	**What's New Statement**
Budgeting and budget control	You can set up budgets and configure budget control based on the ledger for a legal entity. The ledger provides the chart of accounts, accounting and reporting currencies, and fiscal calendar. You can specify which dimensions from the chart of accounts are available for budgeting and budget control. You can configure budget intervals, budget cycle time spans, budget thresholds, budget managers, budget groups, and the calculation used to check for available budget funds. The available budget funds can be verified when source document line items and accounting journals are entered.
Use posting definitions for budget register entries	You can create posting definitions for budget register entries, and use those posting definitions to create ledger entries when budget register entries are posted. This helps make posting faster and more efficient because you can post to multiple accounts without making additional manual account entries.
Import and Mapping Wizard for the Compliance Center	You can use the Import and Mapping Wizard to import your internal controls into the Compliance Center from an existing, preformatted control matrix spreadsheet that your company uses.
Default control library for the Compliance site	A workbook that contains more than 120 common compliance controls is now available on the Compliance site in Enterprise Portal. You can refer to this library when you manually enter controls on the Compliance site, or you can use the library as the source file for importing controls into the Compliance site.
Removed Compliance site links to reports that require input parameters	The following links have been removed from the Compliance site: • Alert tracking • Alert setup • Database log setup • Object permissions • User permissions • Workflow tracking • Workflow instance by status
Internal Control page usability enhancements	A number of usability enhancements have been added to the Internal Controls page in Enterprise Portal. For example, preview information is displayed in FactBoxes for each document that is selected. You can change the page view to highlight documents that meet specific criteria, such as documents that are assigned only to you, or documents that have not been started. Icons are displayed next to each document to help identify the template that was used to create each document. Also, the new context menu makes it easier to add, modify, and delete documents in the Internal Controls tree view.
Action Pane on Compliance site pages	The Internal controls and Database log pages on the Compliance site are updated to use standard Microsoft Dynamics AX Action Panes.

Bank, budget, compliance and fixed assets features	
What's New Heading	**What's New Statement**
Automatically review business documents for policy violations	You can now automatically review business documents for policy violations that trigger a review or audit. As a result, you can more efficiently manage adherence to policy and prevent fraud.
Transfer fixed assets between locations, funds, programs, and departments	You can transfer fixed assets between financial dimensions, such as locations, funds, programs, and departments. For each transfer, an historical record is created that includes the transaction (transfer) date and the amount at the time of the transfer. You can view the historical information in the Fixed assets form. This form provides a clear record of asset transfers, which is required for high-value assets. You can instead use this tracking method, and also modify financial dimensions, in the Value models form to modify the financial dimensions for a fixed asset, where you do not have to keep an historical record of the changes when no record of the transfer details is needed.
Asset activity code, property group, and organization unit attributes available for fixed assets	Some organizations must track fixed assets at a very detailed level, either for specialized business needs or to comply with governmental regulations. You can track fixed assets by using three new attributes: asset activity code, property group, and organization unit. After you create these attributes in their setup forms, you can assign them to fixed assets in the Fixed assets form.
New SQL Server Reporting Services reports for Fixed assets	You can use Physical inventory worksheets as checklists to identify and list assets. The Fixed asset due for replacement report lists assets that are due to be replaced, based on the asset replacement dates.

Accounts payable

Accounts payable features	
What's New Heading	**What's New Statement**
Invoice quantity sign must match ordered quantity sign	The sign of the invoice quantity on a vendor invoice must match the sign of the ordered quantity on the purchase order. In previous versions, you could enter a negative invoice quantity to record the return of a product. To provide better accounting control, this is no longer possible. Instead, you can issue a credit note for the purchase order line as a separate purchase order line (in other words, a purchase order line with a negative quantity).
A unit price based on an inventory cost price is updated only once for a customer invoice	The unit price on an intercompany purchase order and intercompany sales order is updated for changes only when the first customer invoice for the intercompany sales order is entered. The update occurs only if there is a change in the unit cost price in Inventory management, and it occurs automatically. If a subsequent customer invoice is entered, the unit price for that customer invoice does not come from the cost of the item. Instead, it comes from the intercompany purchase order.
Accounts payable invoice table changes	In previous versions, unposted purchase order invoices that were entered in the Posting invoice form were stored in the same tables as information about updating purchase orders, receipts lists, and packing slips. In this version, unposted purchase order invoices, which are now called vendor invoices, are stored in a separate set of tables.
Invoice matching changes for line items that are identified by descriptions and categories	You can match an invoice line that is identified by a description and a category to its corresponding purchase order line and product receipt line. This feature is based on the functionality that you use to enter lines that are identified by a description and a category on a purchase order, product receipt, and invoice. Additionally, you can use this feature with purchasing policies that are assigned to line items that are identified by descriptions and categories.
Create vendor invoices and credit notes from electronic invoices	A new Application Integration Framework (AIF) service, VendVendInvoiceService, creates vendor invoices and credit notes from invoices that are received electronically. The service also enables vendors to request and retrieve unposted invoice information in Accounts payable.

Accounts payable features	
What's New Heading	**What's New Statement**
Enter vendor invoice lines in the Vendor invoice form that are not related to a purchase order	You can enter vendor invoice lines in the Vendor invoice form, even if the lines are not related to a purchase order. The same vendor invoice can include a combination of lines that are related to purchase orders and lines that are not related to purchase orders. The following are examples of vendor invoice lines that are not related to a purchase order: • Subscription dues • Conference event registrations • Catering services • Cleaning services You can enter vendor invoice lines that are not related to a purchase order, and that do not create inventory transactions. However, inventoried or stocked lines are not supported on vendor invoice lines that are not related to a purchase order.
Invoice matching: Price total matching	If the parameter that enables price total matching to be used in the Accounts payable parameters form is selected, the net amount of an invoice line plus the net amount of any pending invoice lines and previously posted invoice lines is compared with the purchase order line. If the variance amount in the accounting currency exceeds the tolerance percentage, the amount, or the percentage and amount for price total matching, a matching discrepancy warning is displayed. This type of variance can occur in situations where partial invoices individually meet quantity and price tolerances, but when combined, they exceed a specified percentage or currency value as defined by the legal entity. Price total matching tolerances can be set up per legal entity.
Invoice matching: Charge matching enhancements	If the option to use charges matching is selected in the Accounts payable parameters form, charges on a vendor invoice can be compared with the expected charges from the purchase order. If the variance exceeds the tolerance percentage for charges, a matching discrepancy indicator is displayed. Charge tolerances can be set up per company or for individual charges codes.
Invoice matching: Invoice total matching	Invoice totals on a vendor invoice are compared with the expected totals, based on the purchase order information. If the variance exceeds the tolerance percentage for invoice total matching, a matching discrepancy indicator is displayed. Invoice total matching tolerances can be set up per legal entity or for individual vendor.

Accounts payable features	
What's New Heading	**What's New Statement**
Vendor invoice processing workflow	By using two new workflow types, VendProcessInvoice and VendProcessInvoiceLine, users can create user-defined workflows for vendor invoices that are typically entered in the Vendor invoice form and other forms that have the InvoiceInfo* tables as their data source. The workflow process operates on data that is imported into the InvoiceInfo* tables, and can be used to model the processing steps for the vendor invoices. The workflow type contains the following elements: • Approval elements for creating approval tasks. • A task element for use in completing and correcting vendor invoices. • Automated tasks that can be run programmatically without user intervention, to perform selected validations and post the vendor invoices. Vendor invoice validations, including matching, are performed programmatically when the workflow is run. The validations use relevant Accounts payable parameter settings. Security is used to determine the behaviors that are supported while the vendor invoice has an active workflow instance associated with it. The standard Microsoft Dynamics AX workflow infrastructure for the creation of workflows by users, the run-time behaviors of the associated workflow instances, and the creation of workflow history is used.
Invoice matching: Line matching policy (two-way and three-way)	The line matching policy can be set to three-way (matching compares the invoice, purchase order, and product receipt), two-way (matching compares the invoice and purchase order), or not required (unit price matching and price totals matching are not performed). The line matching policy can be set up per legal entity, and for items, vendors, or item and vendor combinations.
Invoice matching task for workflow	Invoice matching is now available as a workflow task that can be performed without user intervention. The workflow can be started based on a Microsoft Dynamics AX business event, such as when new records are created by using the vendor invoice service. Vendor portal scenarios and import scenarios in which vendor invoices are processed without user intervention are supported. In Microsoft Dynamics AX 2009, invoice matching was performed automatically through the user interface when an invoice was created, modified, or retrieved. The new tasks use the same underlying logic that the user interface uses to perform invoice matching.
Enter vendor invoices that are not for a purchase order in the Vendor invoice form	Invoice header fields have been added to the Vendor invoice form, so that you can use this form to enter a category-based invoice line that is not related to a purchase order on an invoice.

Accounts payable features	
What's New Heading	**What's New Statement**
Postdated checks	You can issue and receive checks with a check date in the future, also known as postdated checks. This is a common business practice in Asia, Africa, and many other parts of the world. Many businesses use checks as the primary means of making and receiving payments. You can create postdated checks in payment journals in both Accounts receivable and Accounts payable. Postdated checks use standard Microsoft Dynamics AX functionality, including payment journals, financial dimensions, check printing, centralized payments, settlements, and banking. Postdated checks are not considered legal in certain parts of the world, including Southeast Asia, Australia, and New Zealand, but are sometimes still used in those countries/regions as a business practice. To accommodate this business practice while complying with applicable laws, you can choose whether the check amount will be reflected in your accounting books until the time of maturity. If financial posting for postdated checks is turned off, the checks are documented for record-keeping purposes, and the financial transaction takes place only when the maturity date of the check is reached.
Improved forms for creating and posting invoices	The forms for creating and posting invoices are easier to understand and use, and you can now enter all of the required information in one form.
Verify the receipt of W-9 forms from vendors	Before posting a document, you can verify whether a vendor has provided a W-9 form. If the vendor has not provided a W-9 form, you can hold the document while you wait for the form from the vendor.
Advance payments on vendor invoices	When you need to pay a vendor before goods are delivered or a service is performed, you can create a vendor invoice line that includes a category and the amount that must be paid in advance. You can validate the amount of the advance payment that is listed on the vendor invoice against the amount listed on the purchase order. You can also apply the vendor invoice for the advance payment against the vendor invoice for the items or service.
Vendor self-service	Vendors can create and edit their invoices directly from the vendor self-service portal in Enterprise Portal. Vendors can create an invoice from a purchase order, or they can create an invoice and add a purchase order to it.
Add open purchase orders and purchase order lines to an invoice	You can use the Retrieve purchase orders form to create one invoice for selected purchase orders and purchase order lines. In a list on the Retrieve purchase orders form, you can select the open purchase orders and lines that you want to combine on the same invoice.
Improved forms to create and post invoices, purchase orders, receipt lists, and packing slips	The forms for creating and posting invoices, purchase orders, receipt lists, and packing slips are easier to understand and use. For each document type, you can now enter all of the required information in one form.

Accounts payable features	
What's New Heading	**What's New Statement**
Create payment invoice groups and pay a group of invoices by using the same payment	You can group invoices by a common code, so that if one invoice in the payment group is paid, the other invoices in the group are included in the same payment.
Print copies of payments as nonnegotiable checks	You can print copies of payments, including checks, promissory notes, and electronic payments. The payment copies are printed as nonnegotiable checks.
Set up prenotes to validate customer and vendor bank accounts for EFT	You can now set up prenotes for customer and vendor bank accounts for electronic funds transfer (EFT). For electronic payments, banks use prenotes to verify the accuracy of account data, such as routing numbers and account numbers.
Place Accounts payable payments on hold	You can put Accounts payable payments on hold until a specified release date, or you can put them on hold indefinitely by not specifying a release date. You can use holds to stop Accounts payable payments either by holding all payments for a vendor or by holding the payment of any selected invoice. When you put a payment on hold, you can prevent an approved invoice from generating a payment until the release date, if one is specified.
Organize invoices in groups for simpler retrieval and handling	You can now group invoices by a common code, so that you do not have to use an exact query to retrieve a set of similar invoices. After you have retrieved the invoice group, you can easily post all of the invoices at the same time.
Add open purchase orders and purchase order lines to an invoice	You can use the Retrieve purchase orders form to create one invoice for selected purchase orders and purchase order lines. In a list on the Retrieve purchase orders form, you can select the open purchase orders and lines that you want to combine on the same invoice.
Create a confirming purchase order for unplanned vendor purchases (Public sector)	In an emergency or special circumstance, you can create an order that circumvents the typical purchasing process. For example, you can authorize an order with only a purchase order number instead of a printed purchase order document. You can use the Confirming PO field to track these unplanned purchases.
Select from multiple remittance addresses	You can select from multiple remittance addresses for your organization. You can use a default remittance address for specific invoices, or a different address that you selected for an invoice or payment.
Approve or reject vendor invoices from the Workforce services site	You can use the Workforce services site in Enterprise Portal to approve or reject invoices that were submitted through the vendor self-service portal.
Create invoices from the vendor self-service portal	Vendors can create and edit their invoices directly from the vendor self-service portal in Enterprise Portal. Vendors can create an invoice from a purchase order or packing slip, or they can create an invoice and add a purchase order to it.

Accounts payable features	
What's New Heading	**What's New Statement**
Transfer purchase order encumbrance entries from the closing fiscal year to the new fiscal year	If you encumber purchase orders, you can process year-end closing entries to the general ledger and against budget reserves at the end of each fiscal year. When a new fiscal year is created, a new set of adjusting entries is made to correctly reflect the encumbrances in the new fiscal year. These entries ensure that the purchase orders are correctly represented on the year-end financial statements.
Create flexible rules for vendor invoices	Business rules for vendor invoices are now more flexible. You can enforce your business rules across all operating legal entities, but still allow local variations based on other criteria, such as currency and country/region.

Accounts receivable

Accounts receivable features	
What's New Heading	**What's New Statement**
Giro footer information is printed on a separate page	Six reports that can have variable footer information can now include the footer information on a separate page. These reports include the Customer account statement - external, Customer collection letter, Customer interest note, Free text invoice, Customer invoice, and Project invoice.
Credit card processing enhancements	Credit card processing terminology has changed to follow industry standards. In Microsoft Dynamics AX 2009, you could preauthorize a credit card to reserve the amount with the bank, and then authorize it to collect the payment. Now, the term "authorize" is used for reserving the amount, and "capture" is used for collecting the payment. The following enhancements are included for credit card processing: • You can use any valid currency that your payment service supports. • Refunds can be processed for credit notes. • Authorizations (previously known as preauthorizations) occur automatically for the remaining amount of the order when a partial shipment is processed. • The card verification value (CVV) can be validated. • Address verification is now supported. Data support is provided for Level-2 (order header) and Level-3 (order line) data. • You can process a sales order that contains a credit card, without storing the credit card number in Microsoft Dynamics AX. • You can send tax codes, customer tax groups, and item tax groups to an external application by using a web service.
Multiple customer invoice formats for print management	You can now specify different formats for customer invoices in the Print management setup form. For example, you can use one format for most of your customers, but a custom format for a specific customer. The custom report format must be created by a developer and added to the AOT before it is available for selection in the Print management setup form.
Manage collections and collection agents	Credit and collection managers can use a new central view to manage collections and collection agents. Collection agents can begin the collection process from customer lists that are generated by using predefined collection criteria. Collection agents can use the Collections form to organize work related to a specific customer in an orderly fashion to produce measurable results. They can also track activities, such as making phone calls, sending email correspondence, and writing off transactions, and manage groups of transactions and activities by assigning them to a case.

Accounts receivable features	
What's New Heading	**What's New Statement**
Define enhanced interest calculations	Expanded options for calculating interest give you the flexibility to handle interest charges that are unique to your organization. You can use the enhanced Interest form to define the specific calculations that are used when collecting interest and paying interest for a variety of scenarios that your organization encounters. In previous versions, interest could be calculated only by using a fixed percentage formula with a simple per-day or per-month frequency. With the addition of the Interest earnings and Interest payments tabs, you can base an interest calculation on either a percentage or an amount. On the new Ranges tab, you can derive interest percentages or amounts by defining an increasing series of these values in day, month, or amount intervals. For example, you can charge an interest amount of USD 5.00 every 15 days, five percent every three months, or two percent for every USD 1000.00 of the balance of an invoice.
Create different interest terms for different date ranges	You can create interest code ranges that are effective for a specified date range. You also can define changes in interest attributes, such as the days in a grace period, the amount, the ledger account, or the calculation method for a future date. This ensures that the correct set of interest attributes is used when interest is calculated on transactions. You can also view historical information for interest attributes, including a timeline.
Correct free text invoices after they have been posted	You can quickly correct posted invoices, review free text invoice history, and audit free text invoice correction history.
Select invoice lines for settlement	When you use the Enter customer payments form or the Open customer transaction editing form, you can now apply a customer payment to selected invoice lines. You can use the new Mark invoice lines form to select individual lines for settlement and adjust the settlement amount for these lines. You also can view a history of the settled line amounts on a new Lines tab in the Customer settlement form. These features are activated by selecting a check box on the Settlement tab of the Accounts receivable parameters form.
Calculate interest based on the terms specified for individual transactions	You can calculate the interest for transactions by using the interest code that is specified for the posting profile that is associated with the individual transactions. Interest ledger accounts, and the corresponding offset or summary accounts, are also obtained from the posting profile that is associated with the individual transactions when the interest note is posted.
Quickly view customer invoice details and create new interest notes	When customers ask about their most recent invoice totals and interest charges, you can now find this information in one location, rather than looking in multiple forms. Use the Open Customer Invoices list page to view essential invoice details by customer, including posted and unposted interest and total payments made. You can click the Calculate Interest and New Interest Note buttons to calculate interest and create new interest notes by customer or by invoice. You also can click the Invoice, Transactions, Payments, Interest Notes, and Collection Letters buttons to view original transaction documents.

Accounts receivable features	
What's New Heading	**What's New Statement**
View, print, or send individual invoices or ranges of invoices from the Free Text Invoices list page	You can use the Free Text Invoices list page to view, print, or send individual invoices or groups of invoices, or copies of those invoices. You can use this feature to consolidate invoicing mailing batches, which can decrease mailing costs. You can select invoices by invoice date, invoice due date, or account number.
Generate recurring invoices for customers	You can set up, create, and generate recurring free text invoices for customers.
Select from multiple remit-to addresses for customer refunds	You can select from multiple remit-to addresses for customers so that you can send refunds to an address that is different from the primary customer address.
New quantity and unit price fields on the free text invoice line	You can use the new Quantity and Unit price fields to determine the billing amount for a free text invoice line. These fields enable you to use a single invoice line to bill customers for more than one instance of a specific charge.
Specify how debit transactions are prioritized during Accounts receivable settlement	You now can specify the order in which transactions are settled in Accounts receivable. You can use a new parameter to prioritize settlement by debit transaction type. You can create an ordered list of transaction types that determines the priority of settlement when no specific transactions are selected. If you are selecting transactions for settlement, you can click the Mark transactions button in the Enter customer payments and Open transaction editing forms to automatically select the prioritized transactions, and to easily see them and make any changes before they are settled.
Use print management for Accounts receivable reports	You can use the expanded print management features when generating customer account statements, collection letter notes, and interest notes.
Make adjustments to waive, reinstate, or reverse interest notes, interest on transactions, or fees	You can waive interest notes, or interest on transactions or fees that are part of interest notes when you make adjustments to an outstanding balance that is owed by a customer. Waived charges are forgiven, and the amounts are reversed to the same revenue accounts. If necessary, you can later reinstate waived interest or fees so that the amounts are due again. You can also reverse waived interest notes or interest on transactions, which removes those amounts from account balances so that interest can be recalculated for the transactions.
Enhanced settlement priority options	You can enable the settlement priority by debit transaction type, transaction amount, cash discount date, or due date, and set the sorting order, where applicable. The user can then determine which charges must be paid first when a payment is received. In addition, you can choose to use only the defined order for marking transactions for settlement, and exclude automatic settlement from being affected by the specified marking order.
Improved free text invoice form to create and post free text invoices	The form for creating and posting free text invoices is easier to understand and use. All of the actions have been moved to an Action Pane and are displayed on activity-based tabs, so that you can access commonly used features and subsequent tasks by clicking a button.
Add original invoice information to corrected invoices	You can add the original invoice number and correction reason to a corrected free text invoice.

Accounts receivable features	
What's New Heading	**What's New Statement**
Create different interest terms for different date ranges	You can create interest code ranges that are effective for a specified date range. You also can define changes in interest attributes, such as the days in a grace period, the amount, the ledger account, or the calculation method for a future date. This ensures that the correct set of interest attributes is used when interest is calculated on transactions. You can also view historical information for interest attributes, including a timeline.

Human resources

Human resources features	
What's New Heading	**What's New Statement**
Terminating workers	You can easily modify a worker's employment status to indicate employment termination, and you can specify the last date that the worker was employed and the final pay period date.
Track and manage work-related injury and illness incidents	You can track and manage work-related injuries, accidents, and illness incidents.
Number sequences for employees, positions, and applicants	You can set up number sequence codes for employees, positions, and applicants.
Maintain a list of dependents and beneficiaries	You can maintain a list of dependents and beneficiaries.
Hiring workers	By using information that was entered in an applicant record, you can more easily create a worker record.
Access employee goals in Enterprise Portal	Employees and managers can create and manage employee goals. For example, they can create new goals, update the status of goals and activities associated with those goals, and enter comments.
Benefits setup	You have more flexibility to set up and define worker benefits, such as health or investment benefits. You can create and assign workers to current and future benefits with customized plans and coverage levels.
Transfer workers from one position to a different position	Previously, you had to update multiple forms when a worker switched positions within your organization. Now, you can use the Transfer workers form to record transfer-related information when a worker transfers to a different position.
Questionnaire configuration key updates	The Questionnaire I and II configuration keys are no longer available. The questionnaire functionality is available when the Basic configuration key is selected.

Human resources features	
What's New Heading	**What's New Statement**
Create and manage teams of people	You can now create and manage teams of people who collaborate to perform work with Microsoft Dynamics AX. These people can be Microsoft Dynamics AX users, employees, contractors, vendors, customers, or contacts. Teams can include people from different locations and entities, such as organizations, legal entities, and departments.
Applicant list page	A new list page that lists applicants is available, so that you can quickly find and maintain your applicant records.
List of benefits and enrollments	You can use a new list page to view which workers are enrolled in a specific benefit. You also can filter the list and export it to Microsoft Excel for further analysis.
Mass benefits enrollment	You can enroll multiple workers in a benefit at the same time.
Track worker certification expirations	Generate an individual or batch report for certifications that are near expiration or that have already expired.
Enhanced benefit setup for dependents and beneficiaries	You can assign benefits to dependents and beneficiaries, based on your organization's eligibility rules. The Personal contacts form also has additional fields that you can use to include more information about dependents and beneficiaries.
Onboard workers from application records	You can now create a worker record by using information that was entered in an applicant record.
Anonymous questionnaires	You now can create questionnaires in which users can answer questions anonymously.

Sales and marketing

Sales and marketing features	
What's New Heading	**What's New Statement**
Case management in Enterprise Portal	You can use case management in Enterprise Portal to access a list of current cases and create new cases. You can access the case information that you need, whether you are an internal employee or an external worker for the company.
Associate contacts with multiple parties in the same organization	To expand your network, and obtain new customers and vendors, you can now associate contacts with multiple parties in the same organization.
Knowledge articles and case management	With the addition of case management, you can create knowledge articles in what was formerly known as the encyclopedia. These knowledge articles can help customer service representatives solve specific cases. Access to documents, links, and other information can be grouped logically into case categories for the accumulated organizational knowledge of the company. The knowledge articles can also be ranked or scored to indicate how valuable the information is for helping users quickly find the most common solution to an issue.

Sales and marketing features	
What's New Heading	**What's New Statement**
Case management in the Microsoft Dynamics AX client	Case management can help you track cases that are brought forward by customers to resolve problems, answer questions, or replace purchased items. You can create, assign, plan, resolve, follow up on, and analyze cases.
Updates to the address book	Updates to the address book include enhanced contact synchronization with Microsoft Outlook. You can now define multiple purposes for multiple addresses.

Compliance and internal controls

Compliance and internal controls features	
What's New Heading	**What's New Statement**
Data is available to help you reduce your carbon footprint	The data that the Environment dashboard provides can show your organization what its carbon footprint is. With the new features included in the dashboard, your company can now formulate ways to reduce its carbon footprint.
Enter substance flow information in Enterprise Portal	You can now enter substance flow information in Enterprise Portal, which improves access to the information across your organization to help you better understand and evaluate your organization's carbon footprint and discover ways to reduce that footprint.
Resource and waste stream management	The Environmental sustainability dashboard can help you and your organization monitor, track, and report your environmental impact. Your company can also report on the acquisition and emission of these substances through reporting frameworks, like the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHG).
Feature updates have been made to the Environmental sustainability dashboard	Updates made to the Environment area offer a better experience for use, more functionality, and allow for a better Environmental management system.
Graphical views of substance flow and key sets of data	With the process flow map, you can view substance flows and other data in graphical form.

Travel and expense

Travel and expense features	
What's New Heading	**What's New Statement**
Tighter integration between Expense management and Projects	You can now filter by project, category, or employee validation, set up default dimensions, and budget for projects in Expense management. In addition, expense entry has been optimized for project expenses.
Expense report posting can be added to workflow	You can now post expense reports as part of the expense report workflow process.
Expense budget control	You can now have better control over budgets by monitoring and controlling actual spending.
Receipts management with expense reports	Because business organizations are not required to pay taxes on legitimate business travel and entertainment expenses in some countries/regions, a legitimate record must be created and submitted to the proper tax authorities. Receipts management offers users a way to provide transaction receipt records with a submitted expense report.
Enhanced Level-3 data in expense reports	You can more closely control and monitor the company money that is being spent by employees. Level-3 data requires that employees provide more information about the expenses that they incur when traveling for work. This information can show when policies are violated and when employees are being overcharged.
Value-added tax (VAT) recovery	Value-added tax (VAT) can be recovered from certain expenses incurred in specific countries/regions. In Microsoft Dynamics AX 2009, you could calculate and recover a portion of taxes by using the sales tax code configuration. Now, you can calculate VAT and potentially recover even more money.
Define travel and expense policies	By using Level-2 and Level-3 data, you can create more detailed policies for travel and expenses and also create more detailed pre-travel policies.
The expense report workflow is now integrated into workflow	The Expense management workflow that is based on line-level reviews of expense reports has been integrated with the workflow framework. This integration enables more efficient customization.
Credit card disputes on expense reports	When you reconcile an expense report that contains a credit card transaction with inaccurate information, you can create and submit a transaction dispute. However, these disputes can only be submitted to the credit card company, not to the merchant where the transaction took place.
Expense management workflows	You can create work item queues for Expense management workflows. Expense reports can be routed to a queue of users, and a user in that queue can complete tasks for the expense report, such as verifying that receipts have been attached.

Project accounting

Project accounting features	
What's New Heading	**What's New Statement**
Display project budget status in purchasing forms	You can now display the project budget status in purchase requisition forms, purchase order forms, and vendor invoice forms. This makes it easy to monitor the remaining available budget for projects, and also supports budget control and the evaluation of proposed purchases during management review or workflow approval.
Changes to the Project accounting cube	Several nonessential fields have been removed from the Project cube perspective, leaving the fields related to measures and attributes. These changes make the cube easier to work with and maintain, and less likely to be negatively affected by schema changes.
Project contract ID numbers can now be assigned automatically	Legal entities now have the option of having project contract ID numbers assigned automatically through a number sequence when a new project contract is created in the Project contracts form.
Associate any sales order, purchase order, or service-related document with a project	You can assign a project ID to any sales order, purchase order, service agreement, service order, or service subscription. Previously, these types of documents could be associated with a project ID only if they were created from within Project management and accounting.
Grant management for projects	You can easily enter and track grants and define relationships to new or existing projects and project contracts. Grant information is stored in a centralized location in Project, so that you can quickly and easily find the information you need for reporting and informational purposes.
Evaluate vendor invoices against project budgets	Vendor invoices can now be evaluated against project budgets.

Project accounting features

What's New Heading	What's New Statement
Enhancements to the budget functionality in projects	Project budget capabilities have been enhanced as follows: • Project budgeting is now possible at the activity level. • An original project budget can be created to define a budget at various levels in the project hierarchy. • An original budget can be submitted for review and approval. • An original project budget can be allocated over a period of time. • Project budget revisions can be created to revise a budget at various levels in the project hierarchy. • Revisions to a budget can be submitted for review and approval. • Approval of a proposed budget revision causes an immediate change to the overall project budget. • A history, or audit trail, of proposed, accepted, and rejected budget revisions is available for review. • The Project balances inquiry and the Project financial status report include a detailed presentation of the project budget. • A project budget revision can be allocated over a period of time.
Enhancements to Project integration with Microsoft Project Server	Project managers can already schedule and manage project activities and resources by using Microsoft Project Server, and they can synchronize activity, costs, and revenue with Microsoft Dynamics AX to support additional analysis of data. Enhancements support the synchronization of resource assignments and the project hierarchy with Microsoft Project Server 2010. In addition, custom code enables Microsoft Dynamics AX custom fields can be integrated with Microsoft Project Server at the table level.
Upgrades for item charges on lines for purchase orders, sales orders, and invoices	Item charges on lines for purchase orders, sales orders, and invoices are now recognized in Project. The ledger account and the posting type for the charge are derived from the primary line amount. In addition, any taxes for item charges are reflected in an expense account. The item charges and their related taxes are also recorded in the project commitments and budget.
Enhancements to project timesheets	Building on existing support for project timesheets, the forms and pages that are used for timesheet-related tasks now provide a more user-friendly experience. The timesheet line-level approvals now use support from the workflow framework for lines to achieve consistency with other tasks. The way that comments and period starting and ending dates are used has also changed. In addition, timesheet support in Enterprise Portal includes the capability to manage favorites, and to quickly create a new timesheet based on either a previous timesheet or favorites.

Project accounting features	
What's New Heading	**What's New Statement**
Project budgeting enhancements	Significant improvements to project budgeting simplify the financial management of projects. By using the new budget control method, you can do the following: • Allocate project budget amounts to multiple fiscal periods and fiscal years. • Revise budgets. • Control whether the budget is verified, and whether transactions that exceed the budget balance are allowed with a warning to the user, or blocked. • Extend committed costs to purchase requisitions. • Apply budget control to all project transactions, including revenue transactions, purchase requisitions, and purchase orders.
Carry forward project budget amounts at year end	If you are working with a multiple-year project, at the end of the year, you can carry forward any remaining budget to future years and make the necessary changes to the associated general ledger accounts.
Multiple funding source support	In previous versions of Microsoft Dynamics AX, you could invoice only one customer per project or contract project. Now the funding for a single project or project contract can be shared by any number of internal and external parties, either with or without funding limits for a profit or a nonprofit organization. In addition, by configuring a funding scheme, you can set up funding limits for one or more customers per category, category group, or transaction type, or for all transaction types.
Collaboration Workspaces	You can now create collaboration workspaces where teams can quickly organize and share information about projects, marketing campaigns, and opportunities. Because collaboration workspaces are built on features in Microsoft SharePoint Services and Microsoft Office SharePoint Server, they include familiar elements, such as document libraries, announcement lists, calendar items, tasks, and discussion boards. You can add collaboration workspaces to existing projects, campaigns, and opportunities, and you can configure your Microsoft Dynamics AX options so that new collaboration workspaces are automatically created for them.
Create and manage projects in Enterprise Portal	Project managers can create and maintain projects in the web-based Enterprise Portal. Previously, time and expense entry was the only Project-related feature available. Web-based support makes it easier for project managers to work remotely, and frees them from having to deal with software installations, upgrades, and patches.
Enter and approve worker timesheets in Enterprise Portal	Enterprise Portal includes a timesheet page where workers can enter the hours they worked each day on one or more projects. Additionally, project managers can review and approve worker timesheets in Enterprise Portal.

Project accounting features	
What's New Heading	**What's New Statement**
Enter a beginning balance for a project	You can now enter a beginning balance for a new or existing project. By specifying a beginning balance, you can transfer projects to Microsoft Dynamics AX without affecting the general ledger. For example, if you have been tracking a project in another program, but recording project costs and revenues in Microsoft Dynamics AX, you can transfer the project to Microsoft Dynamics AX, specify a beginning balance, and then track the project information in one place only.
Enter and track detailed information about grants	You can enter and track grants, and you can define relationships between grants and new or existing projects and project contracts. Grant information is stored in a centralized location in Project, so that you can quickly and easily find information that you can use for reporting and informational purposes.
Track project revenue from a free text invoice	Revenue that is billed by using a free text invoice can now be tracked to a project.
Enhancements to adjustments	Adjustment capabilities have been enhanced as follows: • Invoiced and estimated transactions can be adjusted. Previously, only transactions that were not invoiced or calculated in an estimate could be adjusted. • The adjustment date can be used as the project date for transactions, instead of the original transaction date. • The relationship between an original transaction, its reversal, and a new replacement transaction can be traced, including information about what user made each adjustment. • With the new Adjustment cash flow trace feature, if an item transaction that is created from a purchase order is adjusted to a new project before the vendor is paid, you can report "Expected" and "Paid" from the new project.
Support for progress billing, estimates, and revenue recognition when migrating data from other ERP systems	When you migrate data from one Enterprise Resource Planning (ERP) system to another, one challenge is bringing existing data into the estimation system so that revenue can continue to be recognized for fixed-price projects that are already underway. Because revenue recognition is based on a completed percentage, the data must be migrated so that both the percentage of work already completed (actual cost) and the amount of work remaining on the project (estimated cost to complete) are reflected in the proper accounts. Because some fixed-price projects can span multiple years, the actual cost to date can also be derived from several years of transactions. Therefore, the key challenge in an ERP migration is posting a lump sum transaction in the beginning balance journal and connecting it correctly to the estimate system. To address these data migration issues, the new beginning balance and progress billing features integrate with the existing estimation system to provide support for revenue recognition for fixed-price projects.

Project accounting features	
What's New Heading	**What's New Statement**
Miscellaneous Project feature updates	A series of minor feature changes have been implemented for Project: • The Employee ID field is no longer required for hourly transactions in Project, so that route operations can be assigned to work center groups, not only to individual work centers. • Several references to period tables in Project have been replaced with fiscal calendar objects, relations, and methods. • The capability to copy a project ID to a purchase order when the purchase order was made from an item requirement has been restored. This functionality is necessary so that users can view a full list of the purchase orders that are related to a project.
Funding sources for project ledger posting	If you use multiple funding sources with project contracts, you can configure ledger posting based on funding source by project, project group, category, category group, or all of these options. For each posting type, you can associate projects and funding sources with specific accounts.

Control

Control features	
What's New Heading	**What's New Statement**
New report to identify potential conflicts in transactions	A new report, Potential conflicts - Inventory and General ledger, validates whether transactions from Inventory management and General ledger match the parameter settings in Accounts payable, Accounts receivable, Production information management, and Inventory. The report can be used to view a list of any transactions that violate one or more rules. For each violation, a corrective action is suggested.
Report framework for configuring inventory value reports	Reports to track inventory movements or reconcile inventories with General ledger can now be configured and saved. The reports are created in a new report framework that you can use to save a set of unique report configurations. After a report configuration is created, the report can be run at any time without further configuration. Reports can be configured for the following purposes: • Internal auditing – The report shows the inventory value by physical quantity, financial quantity, and value. • External auditing – The report shows the inventory value by quantity and value, with no distinction between physical and financial values. • Reconciliation with General ledger – The report shows the current WIP inventory, including the resource types of material, labor, and indirect costs.

Inventory management

Inventory management features	
What's New Heading	**What's New Statement**
Updated Inventory management pages for Enterprise Portal	The existing Inventory pages in Enterprise Portal have been redesigned with a new look and feel that aligns with the new features in the Microsoft Dynamics AX client, including Action Panes, preview panes, and FactBoxes. The following pages have been updated: • EPInventOnhand • EPInventOnhandInfo • EPInventTableInfo • EPInventTableList
Quality management enhancements	Quality management has been enhanced as follows: • Updates can now be blocked for an order while the related items are going through quality inspection. • The quality inspection process can be initiated automatically when items are registered in a warehouse. A higher level of differentiation can now be applied to items going through quality inspection. Therefore, individual batches of items and items with different dimension combinations can be inspected separately.
Handling the arrival of products that are not stocked	Even if unstocked products are not accounted for in inventory, arrivals can be listed and processed in the Arrival overview form, and registered in the Registration form. Incoming orders for stocked items are identified by InventTrans transactions, but products that are not stocked do not generate InventTrans transactions, and they cannot be tracked in inventory. Ordered quantities of products that are not stocked are identified by a signal for expected receipts, the inbound order. The inbound order covers both inventory transactions for stocked items that have an Ordered status and orders for products that are not stocked. The following changes are also introduced: • Support for intercompany trade of products that are not stocked • Support for sales and purchase returns of products that are not stocked • Update of various reports to properly handle order lines without reference to products More detailed information about changes to the InventTrans table can be found in the white paper titled Implementing InventTrans Refactoring for Microsoft Dynamics AX 2012 Applications.

Inventory management features	
What's New Heading	**What's New Statement**
QMS enhancements in Inventory management	The inventory-based aspects of the existing quality management feature has been enhanced. With the existing quality management feature, users can only register data, and the goal is a process-oriented approach to quality management. **Inventory blocking** Inventory blocking enables automatic blocking of inventory in an inbound quality management process, and also manual blocking of on-hand inventory. **Quality test area enhancements** Operators can associate an inspection area with the existing warehouse layout, so that they can identify a location for inventory in the quality management process.

Manufacturing

Manufacturing features	
What's New Heading	**What's New Statement**
User interface updates and new functionality for manufacturing execution and time and attendance features	Workflow for worker registrations – A new workflow approval process is used for the approval of worker registrations. The workflow determines who can approve registrations and whether automatic approval of registrations is allowed. A new calculation engine for calculating time registrations has also been implemented. • The previous Employee form is obsolete – The Employee form, which was used in Shop floor control in previous versions, is obsolete. The data from that form is now incorporated into the Worker form in Human resources. • Updated pay engine – The pay engine has been redesigned so that time registrations are posted on a daily basis by using a standard cost price. When a production order or project is completed, the real cost price is calculated if a supervisor or a manager selects to use real cost price calculation. This approach enables real costs to be calculated at the end of a production order or project, based on the payroll transactions generated continuously through the duration of that production order or project.
Production and sales schedule	Use the Supply schedule form to see an overview of the current demand and supply situation for a product or product family. In the Supply schedule form, you can do the following: • View product supply information that is filtered according to location, master plan, and time period. • Monitor and analyze the supply situation. • Make changes to the planned supply.
New view component on the Locations view list page	A Windows Presentation Foundation (WFP) view component has been applied to the Locations view list page in Inventory and warehouse management, and the presentation layer of the list page has been changed. The changes include new ways to navigate and an option to locate nodes.
Forecast items on any level in the product structure	You can now forecast items not only at the final product level, but also at the subassembly level. This flexibility enables you to produce subassemblies based on forecasts, and the final product assembly based on customer orders. Forecast reduction also occurs at the appropriate level in the product.

Manufacturing features	
What's New Heading	**What's New Statement**
Shop floor control module is divided into two new feature sets	The Shop floor control (SFC) module has changed considerably in Microsoft Dynamics AX 2012. It is no longer called Shop floor control, and has been divided into the following feature areas: • Time and attendance - Time and attendance features contain all previous SFC functionality for registering work time, such as clock-in and clock-out and registration on indirect activities, and attendance registration, such as absence registration. Time and attendance includes features to generate payroll information that a payroll system can use to calculate pay for workers. These features are available from the Human resources menu. • Manufacturing execution - Workers can create and transfer time registrations for specific production jobs or projects by using a job list registration form. Registration features for time, item consumption, and projects are available from the Production information management and Project management and accounting menus. Features for time and attendance and manufacturing execution can be used separately. However, using both sets of features provides the full functionality of the previous SFC module, level 3, including various extensions and updates for Microsoft Dynamics AX 2012. The layout of the Registration form in manufacturing execution has been updated, and you can also use it to do the following: • View the daily balance and logbook. • View attachments connected to a job or an operation. • View and print current activities.
Use the Period template to define schedules	You can set up a new period template that filters and displays data in user-defined time buckets. The template can give structure to large volumes of data, such as sales orders and forecast plans, by grouping the data in a time frame. The period template is introduced to display the master scheduling requirements. You can also use the template to create any type of schedule, such as a production, purchase, sales, and final assembly schedule.

Lean manufacturing

Lean manufacturing features	
What's New Heading	**What's New Statement**
Upgrade from Lean manufacturing for Microsoft Dynamics AX 2009	The Microsoft Dynamics AX 2012 lean manufacturing architecture has fundamentally changed from Lean manufacturing for Microsoft Dynamics AX 2009 and previous versions. The code is new, so there is no code upgrade task. If you have an earlier version of lean manufacturing, you can migrate your current version data when you upgrade. However, you must perform several pre-upgrade tasks. These include the following: • Create the new lean manufacturing setup data. The setup data includes production flows and activities, which are used to create kanbans and kanban rules. • Map your current version data to the new setup data, so that it can be converted during the upgrade.
Use production flows and activities to model a lean manufacturing foundation	• Identify your company's basic business processes and product families, and map them as production flows. • Describe each production flow as a sequence of activities. A transfer activity defines a movement of material. A process activity defines a value-added operation that is applied to a product. • Set up work cells as resource groups that can run process activities. • Set up production flow models to define the capacity settings for each work cell. More detailed information about production flows can be found in the whitepaper titled [Lean Manufacturing: Production Flows and Activities]().
Implement a lean replenishment system by using kanbans to signal demand requirements	You can use kanbans to plan, track, and run production and replenishment operations that are based on pull signals. To create a kanban framework, set up kanban rules that govern when a kanban requirement is created, what is replenished, and how the replenishment is fulfilled. When a kanban is created, one or more kanban jobs are generated, based on the kanban flow activities that are defined in the kanban rule. The kanban jobs are scheduled for the assigned work cell, based on the production flow model.
Set up kanban rules to implement different replenishment strategies	• Set up fixed-quantity kanban rules to replenish material handling units that are consumed from inventory. • Set up scheduled kanban rules to replenish requirements that are generated from master planning. • Set up event kanban rules to replenish requirements that are generated from sales order lines, production BOM lines, kanban lines, and minimum inventory settings.
Plan kanban quantities to replenish target inventory levels	When you use fixed-quantity kanbans, you can calculate kanban quantities that are based on the product demand during a specific period. The kanban quantity calculation can take into account the forecasted demand, the demand from open orders, the historical demand, and safety stock requirements.

Lean manufacturing features	
What's New Heading	**What's New Statement**
Use the Kanban boards to view, plan, and run kanban jobs that are scheduled for a work cell	• Kanban board for transfer jobs – Provides an overview of the current transfer jobs. You can perform tasks, such as updating and registering picking lists, and starting and completing transfer jobs. • Kanban board for process jobs – Provides an overview of the current production situation for a work cell. The information is grouped and displayed by tab to support different production-related roles and their main tasks, such as scheduling upcoming jobs, preparing picking lists, monitoring kanban levels in supermarkets, and registering kanban job status. • Kanban schedule board – Provides an overview of the kanban jobs that are scheduled for a work cell. The kanban jobs and status are displayed in planning periods that are defined in the production flow model. The capacity percentage per planning period is also displayed, so that you can monitor the scheduled load. You can complete tasks such as changing the status of kanban jobs and rescheduling kanban jobs to different planning periods.
Integrate the kanban framework with Microsoft Dynamics AX inventory transaction processes	• Print kanban cards, circulating cards, and picking lists to support the use of kanbans. These documents are used to represent, track, and register kanban jobs in the warehouse and on the production floor. You can set up the parameters for printing these documents in the kanban rules. • Replenish material that is used to fulfill kanban job requirements. Picking activities that support kanban process jobs and kanban transfer jobs are fully integrated with existing Microsoft Dynamics AX inventory transaction processes. In addition, you can use barcode scanning to register picking and transfer activities in inventory. • Use the capable to promise (CTP) feature to obtain accurate ship date information when you enter a sales order. When you register a sales order line, the ship date is calculated based on the availability of the products, material, and resources that are needed to fulfill a specific customer demand.
Lean manufacturing supports purchasing and invoicing processes for services that are related to production flow activities that are subcontracted	You can set up production flow activities that are subcontracted, assign purchase agreement lines and services to subcontracted activities, and create periodic purchase orders and receipt advices to support purchasing and invoicing the services.

Scheduling

Scheduling features	
What's New Heading	**What's New Statement**
New operations resource model for planning operations and managing work center capabilities	The way that resources are grouped for the purpose of managing capacity has been separated from the way resource requirements are specified for manufacturing activities. This separation enables resources to be used at multiple locations, and it removes the need to define resources multiple times, depending on how they are used or what they are used for. In addition, available capacity can be viewed by resource capability, which simplifies manual scheduling and exception handling. As a result, the Microsoft Dynamics AX 2009 manufacturing "work center" concept has been redefined and is now called "resource." Because the way production capacity is managed is now separate from the way manufacturing requirements are specified, you can do the following: • Use the same equipment at multiple locations. For example, you can move equipment and operators to different production locations, as needed, thereby sharing production equipment and production operators across sites. • More easily reschedule an operation and find a suitable replacement resource that can complete the required operation, thereby minimizing production delays. • Define capabilities to an operation resource (previously known as a work center) and match any requirements of an operation with the capabilities of any particular resource, thereby facilitating the identification of available production resources. More detailed information about the Operations Resource Model can be found in the white paper titled Implementing the Operations Resource Model for Microsoft Dynamics AX 2012 applications.
Operations resource model: capability-based production scheduling	In Microsoft Dynamics AX 2009, you could use task groups could to specify alternative work centers, but only when using job scheduling. In Microsoft Dynamics AX 2012, resources can be allocated to jobs and operations by matching the capabilities of the resources with the requirements of the operation. In Microsoft Dynamics AX 2012, alternative resources with the same capabilities are taken into consideration. This applies, regardless of whether you run job scheduling or operations scheduling. The selection process is the same, and consists of matching the requirements of the operation with the capabilities of the resources. Other constraints, such as location, resource working time, and resource type, are also considered when the production is planned. As a result, task groups have become obsolete in Microsoft Dynamics AX 2012, and they have been removed. More detailed information about the Operations Resource Model can be found in the white paper titled Implementing the Operations Resource Model for Microsoft Dynamics AX 2012 applications.

Product information management

Product information management features	
What's New Heading	**What's New Statement**
Product configuration Application Programming Interface	An Application programming interface (API) is available to help existing customers who are using Product builder to migrate their existing product builder models to new product configuration models. The API will also provide a tool for developers to extend new product configuration model functionality.
Product configurator	**New Product configuration functionality** The Product configurator is a constraint-based product configuration tool that leverages the Microsoft Solver Foundation product. You can use the Product configurator to create and maintain product models, and to reuse product models, components, and attributes. You also can use the Product configurator to configure items on a sales order and use configuration templates to preset frequently used configuration selections. **Product configurator and Enterprise Portal** You can access Product configurator through Enterprise Portal, and you can configure constraint-based product configuration models, as well as modify existing configurations through Enterprise Portal.

Trade and source

Trade and source features	
What's New Heading	**What's New Statement**
Decouple order management from inventory control	The pain point of the tight integration between order handling and the inventory subsystem in Microsoft Dynamics AX 2009 has been addressed. While this integration is convenient for organizations with many transaction types that naturally involve the inventory and costing, it is inappropriate for organizations where an inventory may not be used at all for inbound receipts. It is also less essential for professional service organizations where the outbound services or deliveries do not involve inventory at all. For purchase, the current tight integration with the inventory subsystem becomes flexible through the introduction of: • The ability to ensure that purchase order lines for service type products do not create inventory transactions, and that physical inventory or financial ledgers are not updated during receipt and invoice updates. • The ability to ensure that, when required, purchase order lines for item type products do not create inventory transactions. This will typically be a scenario for indirect material expensed directly.

Trade and source features	
What's New Heading	**What's New Statement**
	• The ability to purchase items not defined in the item table—essentially a "free text" order. • The introduction of a category relation on purchase order lines to govern posting profiles and statistics. For sales, the current tight integration with the inventory subsystem becomes flexible through the introduction of: • The ability to ensure that sales order and sales quotation lines for service type products do not create inventory transactions. • The ability to ensure that, when required, sales order and sales quotation lines item type products do not create inventory transactions. This will typically be a scenario for selling a used fixed asset. • The ability to sell items not defined in the item table—essentially a "free text" order. The introduction of a category relation on sales order and sales quotation lines to govern posting profiles and statistics.
Stocked inventory policy	A new method to set up a stocked inventory policy for an item is introduced. The inventory policy is determined by the Stocked item model group attribute. You can now convert existing or upgraded service products to use the "not stocked" inventory policy. The process for changing the inventory policy can be run for one or more service products in one or more legal entities, and can be run multiple times for different products. You can run the conversion immediately after upgrading to Microsoft Dynamics AX 2012, or at any time after the upgrade.
Corrections to a product receipt (previously purchase packing slip)	The approach to correcting or reversing a product receipt in previous versions of Microsoft Dynamics AX had a number of issues. It required the user to post a new, negative product receipt with a new product receipt number, and it would arbitrarily pick any one of the posted product receipts for reversal. A new, dedicated process is introduced for purchase receipt corrections, which allows you to correct or to partially or fully reverse a specific, posted product receipt. When you correct or reverse a product receipt, the product receipt does not introduce a new product receipt number, but rather, introduces a new version of the product receipt.
Sales and purchase agreement report	When confirming a sales or purchase agreement, you can print the confirmation, and send a copy to the customer or vendor. You can view or print any version of a sales or purchase agreement in the Confirmation history form. You also can print a status report that provides information about the fulfillment of a sales or purchase agreement.
Confirmation of product receipts	The requester of products can confirm product receipts. This is especially useful to organizations where employees carry out a large volume of indirect material procurement. The feature provides a simple user interface in Enterprise Portal. The user interface enables the user to carry out the

Trade and source features	
What's New Heading	**What's New Statement**
	following tasks: • Confirm full and partial receipt of requested products. • Reject a fully or partial quantity of requested products with the possibility to add comments to explain a rejection of receipt. • Change the delivery date on selected line items. • Create fixed asset entries in relation to the confirmation of product receipt action. The feature also provides the following types of notification workflows: • Notifies the requester that products are due to arrive. • Notifies the requester that the invoice of ordered products is registered, but the confirmation of product receipt action has not yet been carried out. • Notifies a specific client user that line items have been rejected by the requester of products. • Notifies a specific client user that the confirmation of product receipt action, performed by the requester of goods, has failed.
Line numbers in purchase orders	A line number has been introduced on the purchase order form. The main purpose of the new line number is to: • Identify line items within a purchase order. • Sort purchase order lines according to the line number. When an order line is created, the line number is assigned to the line with an increment that is set in a global parameter. A user can change the assigned number manually, if needed. The feature also provides a renumbering function that reassigns line numbers to the purchase order lines according to a globally set increment.
Trade agreement enhancements	The creation and maintenance of trade agreements has been moved to journals for better control, usability, and transparency. Microsoft Dynamics AX now supports one view that includes all trade agreements for a selected set of items, customers, and vendors. It also supports separate roles for creating or maintaining trade agreements and for approving, bulk updating, and controlling date types in trade agreements. In earlier versions of Microsoft Dynamics AX, changes to an order or an order line could indirectly cause the trade agreements to be re-evaluated, which could overwrite values that had been entered manually or entered by an external source. External sources include sales quotations, project quotations, purchase requisitions, request for quotes, purchase or sales agreements, projects, AIF, or Enterprise Portal. Now, configuration settings can prevent unintended re-evaluation of trade agreements. The smart rounding concept has also been introduced. Smart

Trade and source features	
What's New Heading	**What's New Statement**
	rounding is a type of psychological pricing or price ending based on the marketing theory that prices have a psychological impact on people. It pertains to prices expressed as odd prices that are a little less than a round number, such as USD 19.99. Smart rounding can be applied after a bulk adjustment of trade agreements, or it can be applied automatically after a unit price has been calculated, based on a generic currency and on an exchange rate. Date type control enables trade agreements to be evaluated, based not only on the entry dates, but also on the requested dates.
Delivery schedule	A user can split an order line into multiple deliveries, while retaining the price and other order conditions from the original order line. The feature is implemented on the following documents: • Sales quotation • Sales order • Purchase order Delivery schedules introduce the following features: • Simple interface for creating and maintaining delivery schedule lines • All main processes enabled for delivery lines • Ability to allocate charges to the delivery lines • Ability to override default prices and conditions on delivery lines
Enhanced purchase agreement functionality	The blanket purchase order functionality has been redesigned and renamed "purchase agreement." Whereas blanket purchase orders were previously handled in the Purchase order details form, purchase agreements now have their own simplified form. The changes include the following: • Microsoft Dynamics AX supports both value-based and quantity-based purchase agreements. • You can order certain products and procurement categories directly by using the new Purchase agreement details form. • You can apply the terms and conditions of a purchase agreement, such as the prices and discounts, when you create an order by using the Purchase order details form. • You can control whether you want to search for purchase agreements when purchase order lines are created indirectly, such as when planned orders are firmed. • You can define a validity period for a purchase agreement. The delivery date of a purchase must be within the validity period. • You can put purchase agreements on hold to control whether they are available to the purchasing agent during ordering.

Trade and source features	
What's New Heading	**What's New Statement**
Improvements to the allocation of charges	You can allocate charges to specific lines on a purchase order or an invoice. For example, if some items on a purchase order were picked up at the vendor's location, and some were delivered, you can allocate the delivery charges only to the items that were delivered.
Purchase orders and change management	Change management enables you to request changes to purchase orders. Change management includes Workflow integration, which must be set up to manage the approval process for change requests. When workflow has been configured, it determines the route of the purchase order, the tasks that must be completed, by whom and under what circumstances tasks must be completed, and whether tasks require user interaction or take place automatically. When a change is requested, the purchase order is set to a draft state until it is approved. Only an approved purchase order can be confirmed. Even if change management is not enabled, confirmation of purchase orders is mandatory, so that orders cannot be received and invoiced until the purchase order has been confirmed. If change management is enabled, purchase orders cannot be deleted. Instead, they become obsolete and are replaced by the most recent purchase order for which a change request has been approved. Previously approved purchase orders are stored in a separate form. Even if change management is enabled on a global level, change management can be inactivated for individual vendors and purchase orders if, for example, orders from a particular vendor do not require approval.
Enhanced sales agreement functionality	The blanket sales order functionality has been redesigned and renamed "sales agreement." Whereas blank sales orders were previously handled in the Sales order details form, sales agreements now have their own simplified form. The changes include the following: • Microsoft Dynamics AX supports both value-based and quantity-based sales agreements. • You can order certain products and procurement categories directly by using the new Sales agreement details form. • You can apply the terms and conditions of a sales agreement, such as the prices and discounts, when you create an order by using the Sales order details form. • You can control whether you want to search for sales agreements when sales order lines are created indirectly, such as by intercompany orders. • You can define a validity period for a sales agreement. The requested ship date of a sale must be within the validity period. • You can put sales agreements on hold to control whether they are available to the sales agent during ordering.

Trade and source features	
What's New Heading	**What's New Statement**
Changes to intercompany setup	Intercompany relations and policies are set up in a new form that contains the same content as the form used in previous versions. The new setup form can be accessed from a button on the customer and vendor pages. The setup in this form is shared for the vendor and the customer in the trading relationship, and only has to be defined once. In previous versions, the setup was not shared and had to take place in both the vendor company account and in the customer company account. There are no functional changes because of this change.
Finalize purchase orders and purchase order lines	You can finalize purchase order lines that have been completed, which means that for each line, the ordered quantity has been received in full and matched to vendor invoices. The whole purchase order can be finalized if all its lines have been completed or canceled.

Procurement and sourcing

Procurement and sourcing features	
What's New Heading	**What's New Statement**
Evaluate vendors based on their ability to provide products and services	You can rate vendors based on criteria that you define for each category of item or service that the vendors provide. You can evaluate a vendor for each transaction with the vendor.
Support for multiple languages for procurement catalogs	You can create one procurement catalog that can be viewed in multiple languages, based on the Microsoft Dynamics AX user profile language and locale setting. Purchasing managers can define the translated text that appears on the procurement site.
Rate and provide feedback about products and vendors on the procurement site	Workers can rate products that they have ordered and vendors with whom they have done business, and provide feedback about their experiences. The feedback is compiled and displayed on the procurement site, so that all users can make informed decisions when ordering products or doing business with a particular vendor. The purchasing manager can control whether ratings and comments are allowed on the procurement site, and whether all comments must be reviewed before they appear on the procurement site.
New Employee service page	The Employee services site in Enterprise Portal has been completely updated to improve usability. You can now view all available tasks in one place. Related tasks are grouped under a task heading, and when you click the heading for a task group, a new activity site or list page opens, where you can quickly and easily complete tasks.
Import commodity codes and minimum or maximum order quantities into vendor catalogs	Vendors can generate catalogs that include standard commodity codes, and those codes can be automatically mapped to procurement categories in Microsoft Dynamics AX. Vendors must comply with the Microsoft Dynamics AX customer's unit of measure for quantities. Vendors can specify minimum, maximum, and standard order quantities for products in the vendor catalog, and they can also specify the number of days that they require between the order date and the shipment date (lead time).

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Enhancements to the catalog import schema	The catalog import schema has been updated so that vendors can more easily modify an existing catalog or overwrite an existing catalog with a new catalog. When a vendor uploads a new catalog to replace an existing catalog, the matching items and services are replaced with the new data. Any new items and services that are not in the existing catalog are added, and any items and services in the existing catalog that do not match the items and services in the new catalog are deleted. When the vendor modifies selected items in an existing catalog, only the modifications that are included in the catalog schema are applied to the existing catalog products. Any new items and services that are not in the existing catalog, but that are included in the modified catalog file, are added.
Consolidate the navigation categories on the procurement site	When you set up a catalog, you define the catalog navigation hierarchy that appears on the procurement site. The catalog navigation hierarchy can contain multiple levels of detail for each procurement category. You can define the level of granularity for the catalog navigation categories that you want to display on your procurement site. By consolidating the category levels, you can limit the levels of detail that workers have to sort through to find the product they want to order.
Enhancements to the navigation and usability of the procurement site	The following changes have been made to improve usability on the Order products site: Simplified the navigation, so that you can search for products by category, item, vendor, and vendor catalog. The filters have been moved to the top of the web page. Improved visibility into the status of orders that have been entered. A single list displays all orders that were entered and the status of each order, from the creation and approval of the purchase requisition, to the generation and fulfillment of a purchase order. You can also view the details for a selected order. Added the capability to add selected products to the shopping cart directly from the product list page. The product details page is only displayed if product order details must be entered. Added the capability to configure the data that is displayed for each procurement category. For example, if you only order office supplies directly from a vendor, you can configure the category to display only links to vendor catalogs. Improved visibility for ordering from a vendor. Improved the usability of the shopping cart. For example, you can now select all items in the cart for checkout. Reduced the number of steps that you must complete when using the Checkout Wizard to create a purchase requisition. Added additional details about existing purchase requisitions, to improve the capability to add items from a shopping cart to an existing purchase requisition during checkout. Made purchase requisitions accessible from the Employee services site.
Enhancements to Enterprise Portal Role Centers for	New Web part reports can be added to the Role Centers for the purchasing agent and purchasing manager. The Web part data includes metrics and reporting that provide visibility into vendor

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What's New Heading	**What's New Statement**
purchasing professionals	and procurement spending, additional cues for purchasing professionals, and an expanded work list that shows alerts or workflow notifications. You can click a report to view the details for the reported data.
Policy Framework	You can create rules and apply them to different parts of the enterprise. These rules help the organization enforce standard internal business controls for processes, such as requisitions, submission of corporate expenses, and enforcement of corporate audits. For more information about the policy framework, see the whitepaper titled Using the Policy Framework in Microsoft Dynamics AX 2012.
Set up spending and approval limits	You can define spending and approval limits, including default limits based on job or compensation level, and then apply them based on your organization's needs. For example, two legal entities can have different limits for employees with the job of Purchasing manager.
Manage internal catalogs	You can set up and maintain catalogs for ordering the items or services employees require to perform their daily activities. You can set up the catalog navigation structure, import vendor catalog data, associate products with catalog categories, and design the welcome message that is displayed on the procurement site for the catalog. After the catalog is set up, you can publish the catalog to make it available to your employees.
Add items and services to a shopping cart	When you select items or services from a procurement catalog or a vendor catalog, you can add those items to a shopping cart. You can view the items in your shopping cart at any time, delete items that you no longer want, modify any configurable product attributes, or modify the quantity of the items that you want to purchase. When you are ready to check out, you can create a purchase requisition directly from the shopping cart and submit it for processing. You can then return to the procurement order site to continue searching for items or services, or you can exit the procurement order site when you have finished.
Manage externally hosted catalogs	Catalog managers can now set up a direct link to an external vendor catalog that is hosted on the vendor's web site. The vendor manages the product data and metadata. Users are directed to the vendor's web site to select products, and then, based on the configurations defined by the purchasing manager or purchasing agent, they can either check out directly from the vendor's web site or return to the Microsoft Dynamics AX procurement order site to check out.
Search for items or services in a procurement catalog	Use the procurement site search functionality to search for items or services by category, or by using key words. You can search both procurement catalogs and vendor catalogs, and filter the search results to quickly find the exact item or service that you are looking for.
Import catalog data	Purchasing managers or purchasing agents can import catalog data from vendors by using a delivered XML schema. They can then review and modify product data before passing it to the procurement order site.

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Set up a procurement site	You can set up a procurement site that employees can use to order items and services that they require for daily work activities. You can create a procurement catalog, post the catalog to the procurement site in Enterprise Portal, and create a welcome message that the employees see when they first open the site. User access to the procurement catalog is through the Employee Services site, and access can be controlled by using purchasing polices.
Catalog data import processing	You can use the catalog import feature to import catalog maintenance request (CMR) files that are received from your vendors, and that contain the products, product images, and services that you offer to your employees for purchase. From Microsoft Dynamics AX, purchasing managers can review, approve, or reject any or all of the products or product change requests that are contained in the file. Any products that are approved are automatically uploaded to the product master in Microsoft Dynamics AX, and can display in the procurement catalog.
Create purchasing policy rules to control spending in your organization	You can define complex purchasing rules and apply those rules to your organizational entities in various ways to control the spending behavior of your organizations. These rules help ensure that your employees are buying from the correct purchasing catalogs and the appropriate preferred vendors, and that they are spending within the prescribed limits for their organizations.
Import vendor catalogs	Authorized vendors can use the vendor self-service portal to upload their most recent catalog by using a delivered XML catalog template, and they can view the status of the import process. This feature provides tools and support processes so that vendors can manage catalog integration tasks by using web services and the vendor self-service portal.
View the details for a procurement category	You can view preferred vendors, links, and other information about a procurement category. The category manager can add customized text and links to intranet and extranet sites.
Define category hierarchies	You can define various category hierarchies that are independent of, but still related to, commodity codes or catalog and item hierarchies. The following are some of the ways you can manage categories on a day-to-day basis: • Add attributes, such as a category that is used on a global or local level. • Define approval processes for new and existing categories. • Define categories on a global level. • Define permissions for category users to make changes.

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Enhancements to purchase requisition creation methods	You can import purchase requisitions created in a third-party application into Microsoft Dynamics AX by using web services and an XML schema. This feature validates the purchase requisition data that is received from the third-party application, and then sends a status back to the external source application. Further processing of the purchase requisition in Microsoft Dynamics AX follows the existing application pattern. The copy functionality has also been enhanced so that you can copy purchase requisition header and line data to create a new purchase requisition in the same organization and legal entity. The Enterprise Portal copy functionality has been expanded so that you can copy requisition lines from an existing purchase requisition that is in the same legal entity or organization.
Track change history for purchase requisitions	Any changes made to a purchase requisition from its creation to its completion are tracked as versions, and these can be compared as the purchase requisition moves through the review process. The entire purchase requisition is copied to the history record when the purchase requisition is first submitted for review. Any changes that are made during the review process are also saved to the history record for the data row that is affected by the change.
Identify fixed assets based on monetary thresholds	You can define organization-wide business rules, which can be overridden at the legal entity level for fixed asset determination.
Configure rules for creating purchase orders for purchase requisitions	You can define the following configuration options for creating purchase orders: • Determine how requisition lines are combined into purchase orders. • Determine which purchase requisition lines are held so that manual purchase orders can be created, and which ones are automatically converted into purchase orders. • Determine which purchase requisitions are eligible for requisition consolidation. • Determine the price increase tolerance for purchase requisition lines from approval to purchase order creation.

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What's New Heading	**What's New Statement**
Purchase requisition enhancements	Enhancements to the purchase requisition process and form include the following changes: • Purchase requisition lines can be created for different requesters, legal entities, and operating units in one purchase requisition. • Purchase requisitions can be created by and for contract workers. • Permissions can be configured to enable a requester to enter requests on behalf of someone else across legal entities. • Purchase requisitions can be created for requesters who are not Microsoft Dynamics AX users. • Requisition header and line data can be copied into a new requisition that is created in the same organization and legal entity, both in Microsoft Dynamics AX and in Enterprise Portal. • Purchase requisitions can be created for items that are not found in a catalog, without having to create a false item in the item master. • Statutory and operational purchasing policies have been applied to the purchase requisition process. • Optional fields have been added to capture information if the requester negotiated a prepayment with a vendor.
Enhancements to the Purchase requisition form	The Purchase requisition form has been modified to provide an intuitive user experience for both the novice or casual requester and the power user, making the requisitioning process both efficient and effective. The Purchase requisition form is now dynamic, and includes only the fields that are important in the context of the purchase request.
Manage categories on a daily basis	View details about a category hierarchy and commodity codes in a new report.
Commodity codes for classifying and mapping entities	You can create and support multiple global and proprietary commodity code classification systems for classifying items, services, and vendors, and for mapping items to product categories.
Create a purchase requisition directly from your procurement order site or through the use of a requisition wizard	When you order items or services for indirect procurement, and add those items or services to a shopping cart, you can now automatically create a purchase requisition during the checkout process. You have two options when creating a purchase requisition. You can either add items directly to a purchase requisition from the shopping cart, or use a wizard that guides you through the process for creating a requisition. You can select your purchase requisition creation option at the time of checkout, from your shopping cart.

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Consolidate requisitions to minimize procurement costs	The purchasing manager or purchasing agent can now consolidate requisition line items. Users with these roles can identify which approved purchase requisitions must be processed manually, and whether those purchase requisitions are eligible for demand consolidation. Purchase requisition lines that are eligible for demand consolidation can be grouped together and the vendor, price, requested date or quotation data can be modified to achieve the best pricing.
Enhancements to the review process for purchase requisitions	The overall process for reviewing purchase requisitions has been improved. When a purchase requisition is submitted for review, the individual purchase requisition lines can now be routed to the appropriate reviewers independently of one another. Therefore, reviewers can take action only on purchase requests that are in their area of responsibility, which reduces the processing time for purchase requisitions that have multiple line items. Reviewers can be identified based on the individual purchase line requests, distribution data, or even the budgets that the expenditure is eventually charged to. You can define a workflow for purchase requisition review that routes whole purchase requisitions or individual lines. Project-related purchase requests can use this same review workflow for processing.
Business rules for fixed assets based on monetary thresholds	You can now define business rules at the global level, and then override the rules at the local level for fixed asset determination.
Perform a check of the budget for purchase requisitions	You can require a check of the budget balance for purchase requisitions.
Record transaction dates on purchase requisitions	Purchase requisition headers and lines now contain a transaction date field. The transaction date is used to determine the fiscal period for budget control and for posting purchase requisitions.
Archive closed purchase requisitions by using the Intelligent Data Management Framework for Microsoft Dynamics AX (IDMF)	Due to the introduction of budget control and pre-encumbrances on purchase requisitions, you can no longer delete approved purchase requisitions that you do not have to store in your production system. To archive or purge the records for approved purchase requisitions, you must use the Intelligent Data Management Framework for Dynamics AX (IDMF). For more information about the Intelligent Data Management Framework for Microsoft Dynamics AX, see: https://mbs.microsoft.com/Cms/Templates/document/General.aspx?NRMODE=Published&NRNODEGUID={ECAF89FE-3D52-4FFC-8CCF-D6E3D192D26F}&NRORIGINALURL=/partnersource/downloads/releases/AX_IDMF.htm&NRCACHEHINT=Guest&wa=wsignin1.0
Search for vendors across your organization	You can search for active vendors, prospective vendors, and unsolicited vendors. If a vendor is not yet approved by your organization, you can create a request to consider the vendor for approval.

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Work item queues for processing transaction documents	If you use either internal teams or external partner organizations to process business transaction documents, such as purchase requisitions, purchase orders, or new vendor justifications, you may have to set up work item queues so that these teams can manage the flow of the transactions as they come in from your company and are processed by the appropriate organization. The work item queue provides the necessary infrastructure for the following: Users belonging to a queue can claim work items that are not assigned to anyone else and perform the configured workflow actions on the work items in the queue. Users can reassign work items from one work item queue to another work item queue in the same work item queue group. Queue owners can reassign work items from one queue user to another queue user in the same work item queue group.
Enhancements to support vendors	Enhancements have been made to the vendor profile, including the following: The capability to define the industries that a vendor operates in. The capability to define diversity criteria for the owner of the vendor company, such as whether the owner is a service veteran. The capability to define the procurement categories that the vendor provides items and services in. Categorizing vendors helps with spending analysis and it improves strategic sourcing. It also helps provide critical information, such as the following: • The number of suppliers by category • The total value of spending per year by category • The top 10 suppliers by value per category • The number of vendors that are minority-owned businesses • The number of vendors that are female-owned businesses You can also place vendors on hold so that purchasing transactions cannot continue toward completion. Vendors that you no longer do business with must be inactivated and removed from the view that purchasing agents and employees use to find vendors.
Reason codes for RFQ replies	You can now use the same reason codes in requests for quotation (RFQ) replies that you use in other vendor transactions. Reason codes help explain why transactions were entered, such as why a request for quotation was rejected.
Displayed and required fields and data validations for vendor-related requests	You can define the visible and required fields that are displayed to employees, prospective vendors, and vendors for each of the different vendor-related requests submitted via Enterprise Portal. You can also define the data validation checks required for each request type. These setup tasks are completed in the Microsoft Dynamics AX client.

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Allow vendor registration for unsolicited vendors	External vendors, or vendors in Microsoft Dynamics AX who are interested in becoming approved vendors, can register through an anonymous external portal. This provides an efficient source of potential new vendors and supports a competitive procurement process.
Maintain vendor data through the vendor self-service portal	The vendor self-service portal has two new Role Centers, Vendor and Vendor portal administrator. Users with the Vendor role can complete the following tasks on the vendor self-service portal: • Maintain the vendor profile. • Update invoices. • Submit requests to be allowed to do business in additional procurement categories. • Submit confirmations that they can do business in the additional procurement categories outlined in an employee-submitted vendor category extension request. • Reply to requests for quotations. • Respond to purchase orders (sales orders on the vendor side). • View purchase order confirmations. • View product receipt journals. Users with the Vendor portal administrator role can complete the following tasks on the vendor self-service portal: • View the vendor profile. • Create requests to add or delete users. • Maintain procurement catalogs. • View purchase orders and requests for quotations.
Authorize employees to request approval for new vendors	Employees can use the new Vendor form on the employee portal to request that a vendor be added to the vendor list. Vendors are added to the vendor list after they are approved, and they are then available for transaction processing.
Spend analytics for Purchasing	Several preconfigured reports have been added that purchasing agents and purchasing managers can use to analyze spending trends for their organization, based on dimensions such as the vendor, procurement category, and location.
Vendor extension request	After vendors have been approved, they can request to be added to additional procurement categories. The category extension request process makes it easy for approved vendors to expand their business opportunities in your organization, but also puts controls in place to ensure proper oversight.

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What's New Heading	**What's New Statement**
Employee vendor requests	Employees can submit new vendor requests in Enterprise Portal. A new vendor request is an internal request that you submit to your purchasing department to request that a specified vendor be allowed to do business in your company, selling items or services in specific procurement categories. There are several different kinds of vendor requests: • Request that a vendor that is not a vendor for any legal entity in the organization be allowed to do business with your legal entity. • Request that an existing vendor that is allowed to do business with other legal entities in the organization be added as a vendor for your legal entity. • Request that a vendor be allowed to provide goods and services in additional procurement categories. • Request for a change to a vendor's hold status. In the Microsoft Dynamics AX client, an enhancement has been made so that procurement professionals can do the following: • Expand the vendor scope beyond the original requested scope (either for categories or companies). • Reject prospective vendors that reside in an embargoed country. • Configure questionnaires for employees and vendors to complete as part of the request process.
Vendors can view and reply to requests for quotations on the vendor self-service portal	Approved vendors can respond to requests for quotations directly from the vendor self-service portal. You can view the reply in the list of request for quotation replies in the Microsoft Dynamics AX client.
Support for flexible authentication on customer, employee, and vendor self-service portals	Microsoft SharePoint flexible authentication mechanisms, such as form-based and Windows Live® ID authentication, are supported as authentication mechanisms for Microsoft Dynamics AX users. The vendor onboarding process and vendor self-service portal incorporate support for flexible authentication. The user request process supports the onboarding of all Microsoft Dynamics AX users by using pluggable authentication in the following areas: customers on the customer self-service portal, employees on the employee self-service portal, and vendors on the vendor self-service portal.