

Microsoft Dynamics® AX 2009

## What's new

January 2009



# Table of Contents

Introduction .....	9
Service Pack 1 changes .....	10
Electronic signatures.....	10
Extraordinary depreciation – Italy.....	10
PRODCOM report – Belgium.....	10
VAT declaration – Belgium.....	11
Time zone updates.....	11
Update Enterprise Portal Web sites and migrate Enterprise Portal changes between environments .....	11
Common functionality .....	11
User interface changes.....	11
Export to Excel .....	12
Workflow .....	12
Directory view.....	12
Transaction tracking .....	13
Combine Intrastat data transactions that have the same tax exempt number .....	13
Select user interface language for the client and Enterprise Portal.....	13
Print management enhancements .....	13
Automatically create documentation, presentation, or process diagrams.....	13
Batch processing enhancements.....	13
Enhanced business intelligence framework .....	13
Time zone support added .....	14
Workflow support added.....	14
Create multiple sites within a company.....	14
Integration with Communication Server .....	14
Role centers linked to community sites.....	14
Setup.....	14
Support for localization.....	14
Automated prerequisite installation: .....	14
Addition of new components.....	14
Support for multiple application instances in the same directory .....	14
Add, modify, and remove components.....	15
Improved service and maintenance .....	15
Upgrade.....	15
Code upgrade.....	15
Detect code upgrade conflicts.....	15
Upgrade project enhancements.....	15
Compare Tool enhancements .....	15
Estimation report .....	15
Data upgrade.....	15
Technology enhancements .....	15
Layers .....	15
Workflow .....	16
Business Connector .....	16
Version Control System Integration.....	16

XML Documentation .....	16
Reporting Tools for Microsoft Visual Studio .....	17
Navigation pages.....	17
Queries and views.....	18
Composite query .....	18
Cross company support.....	18
X++ SQL enhancements .....	18
X++ enhancements for CLR interop .....	18
Debug a batch job that runs on the AOS .....	18
Update cross reference by using AT.exe .....	19
E-signature subsystem support .....	19
Update and delete .....	19
Programming model changes.....	19
Consume web services.....	19
Performance .....	19
New documents.....	19
MorphX .....	21
Business Intelligence.....	21
Documentation Changes .....	21
Batch server .....	22
Enhancements to AOS load balanced.....	22
Application integration framework.....	22
64 bit server components.....	22
Active directory import wizard .....	23
Version control system integration .....	23
Reverse engineering tool.....	23
<b>Accounts payable.....</b>	<b>23</b>
Track additional vendor profile information.....	23
Assign payment types to methods of payment.....	23
Inactivate a vendor bank account .....	24
Add miscellaneous charges to a purchase order invoice .....	24
Define remit-to addresses.....	24
Purchase requisition workflow.....	24
Quickly view payment history from the Vendors form .....	24
Accounts payable invoice matching.....	24
Centralized vendor payments .....	24
Withholding tax transaction text .....	25
View a check total in the Vendor payment journal report .....	25
Product and category catalogs for purchase requisitioning .....	25
Save a vendor invoice for a purchase order.....	25
Purchase requisitions.....	25
Changes to the Purchase order and Posting forms.....	25
Request for quotes.....	25
<b>Accounts receivable.....</b>	<b>26</b>
Shipping carrier integration.....	26
Accounts receivable invoice hold .....	26
Tracking a customer using a government ID number.....	26
Credit cards preapprovals and approvals.....	26
Centralized customer payments.....	26
Centralized customer statements .....	26
Set up reason codes for Accounts receivable.....	26

Changes to the Sales order and Posting forms.....	26
Look up payment customer number by invoice number.....	27
Separate layout for free text invoices.....	27
Post invoices based on packing slips.....	27
Bank.....	27
Check reversals journal and Deposit slip payment cancellations journal.....	27
CRM.....	27
Global address book.....	27
Import leads and business sectors.....	28
Define processes.....	28
Global address book.....	28
Sales force automation (SFA) integration with Enterprise Portal.....	28
Lead management in CRM.....	28
Opportunity management in CRM.....	28
Responsibilities in CRM.....	28
Enterprise portal.....	28
Compliance module site.....	28
Role Centers.....	28
Enhancements.....	29
Information for Enterprise Portal administrators.....	30
Expense management.....	30
Set upper diem rules.....	30
Personal expense options.....	31
Split expenses at the transaction level.....	31
Define and apply policy violations.....	31
Import credit cards.....	31
Enter expenses in Enterprise Portal.....	31
Use the Hotel wizard to itemize expense reports.....	31
Expense management workflow.....	31
Category integration with Project and Production.....	31
Define policy violations in Expense management.....	31
View expense reports from General ledger.....	31
Financials.....	32
Approval workflow for financial journals.....	32
Extending the use of reason codes for Financials.....	32
Allow users to post only journals that they create.....	32
Easily post multiple financial journals.....	32
Voucher templates.....	32
Require Social security and organization numbers in Accounts receivable and Accounts payable.....	32
Fixed assets.....	32
Update replacement costs and insured values form.....	32
Create new fixed assets from Accounts payable.....	33
Provide reasons for changes.....	33
Reverse an asset transaction even if it is not the latest transaction.....	33
Capitalization threshold.....	33
Additions form.....	33
Linking assets and projects.....	33

Reverse fixed asset transactions .....	33
Set up reason codes for Fixed assets .....	33
Enhanced asset tracking.....	34
<b>General ledger.....</b>	<b>34</b>
Reversing ledger entries.....	34
Fill utility.....	34
General ledger reason codes and transaction hold.....	34
Mandatory payment preference .....	34
Taxes and ledger accounts .....	34
Tax groups for customers and vendors .....	34
Tax groups for inventory management.....	34
Tax groups for free text invoices.....	34
Ledger account categories.....	34
Intercompany eliminations.....	35
Automatic allocation processing.....	35
Track budget revisions.....	35
Post net income and net loss to multiple dimensions.....	35
<b>Human resources .....</b>	<b>35</b>
Performance management .....	35
Compensation management.....	35
Employee setup.....	35
Support for Compliance with the Americans with Disabilities Act.....	35
Support for compliance with Form I-9.....	35
<b>Inventory management .....</b>	<b>36</b>
Refill and pallet transport improvements .....	36
Improved solution to handle receipt and inspection of returned items.....	36
Outbound process changes.....	36
Update reservations and physical inventory in a batch.....	37
Address information is added to the new Site form.....	37
A financial dimension is linked to inventory-related transactions .....	37
Production cost variances.....	37
Set up production parameters per site .....	37
Profit and loss accounts for item transfers .....	37
Improved inventory closing.....	37
Keep inventory dimensions consistent within lots.....	37
Improved weighted average performance.....	38
Add electronic signatures to manufacturing processes.....	38
Plan for the arrival of expected items .....	38
Break down costs for production and manufactured items.....	38
Price calculation scheme.....	38
Value inventory by standard costs.....	38
Specify mandatory inventory dimensions.....	38
Create demand and supply plans by using Microsoft Excel.....	38
Activity centers for sales and operation plans.....	39
Arrival overview form added .....	39
<b>Manufacturing .....</b>	<b>39</b>
Available-to-promise.....	39
Improved job scheduling options with the Gantt chart.....	39
Actual cost breakdown .....	40

Master planning.....	40
Improved master planning performance .....	40
Use multiple versions of prices .....	40
Bill of materials (BOM) and route version selection.....	40
Multisite .....	40
Advanced on-hand form.....	40
Activate the multisite functionality .....	40
Different costs and prices on different sites.....	41
Master planning bills of materials (BOM) and route.....	41
Time zone and delivery date control per site.....	41
Enhanced XML documents to support multisite and new fallback warehouse.....	41
Sales orders support multisite and site-specific financial dimensions .....	41
Enterprise Portal now supports multisite usage .....	41
Multisite and intercompany orders.....	41
Purchase orders now support multisite and site-specific financial dimensions .....	41
Changes in the Create purchase order and Create direct delivery forms .....	42
Request for quote supports multisite usage .....	42
Multisite support for product builder .....	42
Create and print sales order posting documents per site.....	42
Filter production data by site.....	42
Specify item settings per site.....	42
Master planning in a multisite environment.....	42
Improved standard cost .....	43
Use bill of material (BOM) levels to control production at multiple sites .....	43
Product builder .....	43
Product builder rule debugger .....	43
Production.....	43
Use production units.....	43
Project.....	43
Integrate costing methods into projects.....	43
Project purchase requisition .....	43
Track and control project costs .....	43
Integration to Production.....	43
Export to Excel with Project control.....	43
Balance sheet posting of fixed-price and investment projects .....	43
Project server integration with Microsoft Office Project 12 .....	44
Monitor cash flow.....	44
Calculate employee and hour utilization .....	44
Export data to Microsoft Excel.....	44
Integration of Project and Production .....	44
Price group support.....	44
User-defined stages for projects .....	44
Quality management.....	44
Quality management system.....	44
Service.....	44
New dispatch board to control service order activities.....	44
Integration between Sales and Service .....	45

Service level agreement .....	45
Create and maintain service orders via Web portals .....	45
Features for specific countries/regions .....	45
Austria .....	45
Austrian packing materials fee report removed .....	45
Half year depreciation for additional acquisitions .....	46
PAYMUL file format for methods of payment .....	46
VAT changes for Austria .....	46
Australia .....	46
Fixed asset low value pool .....	46
Belgium .....	46
Belgian annual listing report .....	46
Payment balance declaration .....	46
EU sales listing in XML .....	46
Electronic support for ISABEL version 6 .....	46
Belgian journal reports .....	46
New CODA layout for 2007 .....	47
Changes to Belgium journal reports .....	47
Belgian VAT reports updates .....	47
Canada .....	47
U.S. fund transfer added to RBC Payment Distribution Service (CA) export format .....	47
Denmark .....	47
Schematron validation of OIOXML invoices for Danish public authorities .....	47
Finland .....	47
Intrastat for Finland .....	47
Sales tax reporting for Finland .....	47
France .....	47
Export financial data for French archiving requirements .....	47
French check layout .....	48
Fixed assets derogatory depreciation for France .....	48
Germany .....	48
ELSTER updates .....	48
Depreciation rate for Reducing balance depreciation method .....	48
German EU sales list submitted electronically .....	48
Updated XML version for Germany .....	48
Iceland .....	48
Invoice text on invoice pages for Iceland .....	48
Sales tax reconciliation report .....	48
Italy .....	48
Customer and vendor list for Italy .....	48
Yearly VAT communication .....	49
IBAN number validation for Italy .....	49
Italian fiscal journal .....	49
Italian sales tax report .....	49
Italian sales tax report updates .....	49
Full manual depreciation and depreciation run date .....	49
Closing entries are printed on Italian fiscal journals .....	49
Netherlands .....	49
Export of financial data for XBRL reporting (Netherlands) .....	49
Translate numbers in Dutch text .....	49
eVAT changes for the Netherlands .....	49

Spain .....	50
347 Declaration updates for Spain .....	50
Transfer customer and sales tax group information to invoices.....	50
Sweden.....	50
Support for Bankgiro Receivables (BG Max) import files .....	50
Switzerland .....	50
Revised payment advice report for LSV+ .....	50
Swedish sales tax report updates.....	50
View vendor payments (Sweden).....	50
Thailand .....	50
Unrealized VAT posting accounts for Thailand.....	50
Turkey.....	51
Post net income .....	51
Base invoices on packing slips .....	51
Print a dimension statement and adjust inflation.....	51
Reverse fixed assets transactions.....	51
Purchase type and purchase requisition workflow.....	51
YTL conversion is removed.....	51
Print a Balance List by currency report .....	51
Demand confirmation is no longer available .....	51
Revalue fixed assets after the useful life is finished.....	51
Pro-rata based depreciation of fixed assets for Turkey.....	51
Rounding of fixed asset depreciation for Turkey .....	51
United Kingdom .....	52
UK BACS export file supports larger payment amounts.....	52
United States.....	52
Process 1099-S United States tax statements.....	52
U.S. 1099 changes for 2006.....	52
U.S. ZIP/postal code +4.....	52

## Introduction

The following information provides descriptions of the features that are available in Microsoft Dynamics™ AX 2009.

Refer to the following list for information about enhancements to specific modules and features:

- [Common functionality](#)
- [Setup](#)
- [Basic](#)
- [Upgrade](#)
- [Financials](#)
- [General ledger](#)
- [Fixed assets](#)
- [Accounts receivable](#)
- [Accounts payable](#)
- [Bank](#)
- [Inventory management](#)
- [Master planning](#)
- [Service](#)
- [Multisite](#)
- [Manufacturing](#)
- [Production](#)
- [Human resources](#)
- [Expense management](#)
- [CRM](#)
- [Project](#)
- [Product builder](#)
- [Features for specific countries/regions](#)
  - [Austria](#)
  - [Australia](#)
  - [Belgium](#)
  - [Canada](#)
  - [Denmark](#)
  - [France](#)
  - [Germany](#)
  - [Iceland](#)
  - [Italy](#)
  - [Netherlands](#)

- [Spain](#)
- [Sweden](#)
- [Switzerland](#)
- [Thailand](#)
- [Turkey](#)
- [United Kingdom](#)
- [United States](#)
- [Enterprise Portal](#)

## Service Pack 1 changes

### Electronic signatures

An electronic signature confirms the identity of a person who is about to start or approve a computing process. In some industries, an electronic signature is as legally binding as a handwritten one. Electronic signatures are a regulations compliance requirement for several regulated industries, such as pharmaceuticals, food and beverage, and aerospace and defense. They are also necessary for compliance with regulations in 21 CFR Part 11 issued by the Food and Drug Administration (FDA) in the United States.

In previous releases, a limited number of built-in signature requirements were available, and customizations could be made only by a developer. With Service Pack 1, the same built-in requirements are available, and the administrator can set up custom signature requirements on tables and fields in the Microsoft SQL Server database. The new electronic signature feature has built-in digital signature functionality.

Life-science electronic signature functionality (Administration > Life science electronic signature) will be removed in a future version of Microsoft Dynamics AX. We strongly recommend using the generic electronic signature functionality provided with Service Pack 1 instead of the life-science electronic signatures.

### Extraordinary depreciation – Italy

Fixed assets added two fields for extraordinary accumulated depreciation and percent of extraordinary accumulated depreciation.

The report Fixed Asset Book has been updated with the following changes:

- The amount of accumulated depreciation for previous year is only including the standard profile.
- One new column is added for the amount of accumulated depreciation for previous year including the extraordinary profile.
- One new column is added for the percent of accumulated depreciation for previous year including the extraordinary profile.

### PRODCOM report – Belgium

PRODCOM is the Belgian monthly report for industrial production: “PRODuTs of the European COMMunity”

Most of the companies, who create industrial products, have to report on a monthly basis per product to the NIS (Nationaal Instituut voor de Statistiek). The data to report contains quantities and values of the products delivered in the month of the report, as well as some data about employment.

The reporting is only necessary for products which can be found on the PRODCOM list. This list contains about 5.700 products.

The old PRODCOM report consists of 6 different report layouts available with different data to report. Depending on the activities of the company, the NIS will tell the company which report layout to use.

These old 6 PRODCOM lay-outs are discontinued in AX and replaced by the new PRODCOM 2008 lay-out.

#### VAT declaration – Belgium

The Belgian periodic VAT declaration is available in the new XML lay-out, following the guidelines of the intervat XSD schema.

Changes to the new lay-out include:

- The sequence of the elements is different
- The amounts are declared in EUROCENT instead of EURO (example: 100,01 EURO è 10001 EUROCENT)
- The periodic VAT declaration XSD schema supports single and multiple declarations. In AX, the single declaration is supported.

The new lay-out replaces the previous lay-out.

#### Time zone updates

When the laws and regulations governing time zones are changed, updates for Microsoft Dynamics AX 2009 will be released. Two new forms have been added to the application that you can use to install these time zone updates. First, use the Time Zone Import form to import new and updated time zone definitions into the Microsoft Dynamics AX database. Then, use the Time Zone Patching Tool form to update the Microsoft Dynamics AX data based on the new time zone definitions. For example, you may need to update sales appointments or job schedules affected by the time zone changes.

For complete instructions on how to install a time zone update, see the “Installing time zone updates” topic in the System and Application Setup help file available from the Microsoft Dynamics AX help menu.

Update Enterprise Portal Web sites and migrate Enterprise Portal changes between environments  
This service pack includes the AxUpdatePortal tool for updating Enterprise Portal Web sites. You must run this tool on each Internet Information Services (IIS) server that hosts a Microsoft Dynamics AX 2009 Enterprise Portal site. If you do not run this tool on each IIS server, your Enterprise Portal sites will not process requests after you install service pack 1. This tool can also assist developers and administrators who want to migrate Enterprise Portal changes and configurations to a new server. For more information about using this tool to migrate Enterprise Portal changes, see the [AxUpdatePortal documentation](#).

## Common functionality

#### User interface changes

Buttons and controls used in Microsoft Dynamics AX now look and work in a manner similar to the controls used in Microsoft Office 2007 and Microsoft Windows Vista™.

The application window is divided into several functionality areas.

- Address bar – Displays the location of the current page within the navigation hierarchy of the application.
- Microsoft Dynamics AX menu – Provides access to the File, Edit, View, and Tools menus.
- Navigation Pane – Select which list page or area page is displayed in the content pane.
- Content pane – Can contain area pages, list pages, or your Role Center.
- Status bar – Displays help text for selected fields, and currency and company information for the company that you are logged on to.
- List pages – Allow you to view a list of similar records and then perform actions against a record that you select.

- Action pane – Is divided into groups that contain action buttons. Each action button can be used to add new records to the list page or to perform an action against a record that you have selected in the list page, and to open forms to display more information about a record. The action buttons that are displayed on the action pane depend on which list page is displayed.
- Bidirectional UI – AX 2009 supports bidirectional languages, which is the ability of an application to handle both right-to-left (RTL) and left-to-right (LTR) languages, including the Arabic and Hebrew languages.

#### Export to Excel

You now can export information from almost any form in Microsoft Dynamics AX using the Export to Excel option on the Command menu in a form.

#### Workflow

Workflow is a system that is installed with Microsoft Dynamics AX and provides functionality that you can use to create individual workflows, or business processes.

A workflow defines how a document flows through the system by showing who must process and approve a document. For example, you can create a purchase requisition workflow and specify who must approve each purchase requisition.

The following reporting and business intelligence features are available:

- Reporting Framework – A new reporting framework enables developers to create report models from the Microsoft Dynamics AX data model. Using these report models, developers can create new production-quality reports and users can create ad hoc reports in Report Builder (a component of Microsoft SQL Server Reporting Services.)
- Business intelligence framework – A new business intelligence framework enables developers to create SQL server Analysis Service dimensional models. Using these dimensional models, developers can generate cubes for online analytical processing.
- Predefined cubes – Microsoft Dynamics AX includes predefined cubes. For example, there are cubes for financial, receivables, and payables data. Users can use these cubes to create ad hoc reports Microsoft Office Excel.
- Predefined reports – Microsoft Dynamics AX includes predefined reports that use SQL Server Reporting Services to provide combined views of transactional and aggregate data.
- Report tools – These tools, built on Microsoft Visual Studio, will help developers create SQL Server Reporting Services reports that are integrated with Microsoft Dynamics AX.

#### Directory view

The directory view provides a graphical representation of entities in your Microsoft Dynamics AX system. Three views are available:

- Organization view - Displays the hierarchy of companies, organization units, jobs, positions, and employees.
- Reporting relationships view – Displays companies, reporting managers and positions.
- Locations view – Displays companies, sites, and warehouses. Depending on your license keys, the Locations view can also display production units, work center groups, work centers, inventory aisles, and locations.

Context-sensitive actions for entities displayed in a view are available in the action pane. If Visio is installed, view information can be exported to Visio.

### Transaction tracking

Each time that a transaction that affects ledger accounts is created or modified, the date and time of the transaction and the user name of the person who created or modified the transaction is tracked in the application database.

Combine Intrastat data transactions that have the same tax exempt number

You can combine Intrastat data transactions that have the same tax exempt number.

Note: This feature initially was added for France and Italy, but it is now available globally.

Select user interface language for the client and Enterprise Portal

When you select a user interface language on your client computer for Microsoft Dynamics AX, that language will also be used on the Enterprise Portal.

### Print management enhancements

You can now manage the content of business documents and generate and deliver them in a consistent way. The documents that have print management capabilities and that are generated as part of the posting process include quotations, sales orders, free text invoices, project invoices, and purchase orders. For ease of maintenance, you can configure the number of copies to produce footer text in multiple languages and print destinations at the module level. To help you manage exception situations, you also have the flexibility to specify print management settings for specific accounts or transactions, as your business needs require.

Automatically create documentation, presentation, or process diagrams

Task Recorder for Microsoft Dynamics AX is a tool that logs and documents user activity in various Microsoft Office document formats, including training-oriented documentation in Microsoft Office Word, presentation content in Microsoft Office PowerPoint®, and process-oriented documentation in Microsoft Office Visio®.

The Task Recorder for Microsoft Dynamics AX consists of:

- The recorder toolbar that you select activities from
- Recording capability
- Document generation capability

The recorded tasks and corresponding documents will reflect the language that Microsoft Dynamics AX was running in at the time of recording.

### Batch processing enhancements

You can now run batch jobs on an AOS instance without a client. You can set specific times for each AOS instance to run batch jobs and manage all running batch jobs in the environment from a single form. Dependencies between batch jobs have been enhanced so that you can specify processing order and parallelism, and also the steps to take after batches have been run.

### Enhanced business intelligence framework

The following updates to business intelligence will be available:

- You can use the new OLAP framework to automatically generate SQL Server Analysis Services 2005 dimensional models from Microsoft Dynamics AX metadata.
- You can use cubes generated by using the OLAP framework for enhanced reporting and analysis in Microsoft Excel.
- You can use SQL Server Report Builder to automatically create models for cubes of Microsoft Dynamics AX metadata, and then you can create reports from the models.

### Time zone support added

Microsoft Dynamics AX now supports multiple time zones. All system date and time fields have been merged into datetime fields that store values in Coordinated Universal Time (UTC). Time zone preferences are set at the user level, and information in date and time fields is displayed in the user's preferred time zone.

### Workflow support added

Based on Microsoft Windows Workflow Foundation, many Microsoft Dynamics AX areas now support workflow. Workflow also can be used by partners and customers to implement additional task and approval-based workflows for key business processes.

### Create multiple sites within a company

You can set up multiple sites within a company when you install Microsoft Dynamics AX 2009 or when you upgrade from earlier versions of Microsoft Dynamics AX.

### Integration with Communication Server

You can improve efficiency of communication between your employees, customers and vendors because Microsoft Dynamics AX 2009 integrates with Microsoft Office Communicator to provide **"presence indicators."** In the **Global address book**, any **person type record** can be set up as a Unified Communication contact by signing in on the Contact info tab. A presence indicator is an icon, or pearl, that is displayed in the ID field for an employee or contact person for a business relation, customer or vendor. The pearl indicates whether the person is available, busy, or signed out based on the schedule information that is saved in that person's Microsoft Outlook calendar.

### Role centers linked to community sites

An XML Web part has been added to role center pages to link to Microsoft Role Tailored Community sites, where you can learn from and collaborate with others in your professional discipline. For example, the Finance community page displays published articles from executive insights and expert columns targeted toward CPAs, CFOs, auditors and others in finance roles in their organizations. Role Tailored Communities also provide access to forums where you can enter or respond to posts, or read previously posted threads on finance related issues.

## Setup

### Support for localization

You can now run Setup in the language of your country or region.

### Automated prerequisite installation:

In Microsoft Dynamics AX 4.0, all prerequisite installations were manual processes. Now, if Internet Information Services (IIS) or Windows SharePoint® Services (WSS) 3.0 are missing and you are installing components that require them, you can select to install and configure them as part of Setup. This simplifies the installation of the Role Centers and Enterprise Portal framework, AIF Web services, Workflow, and Synchronization service.

### Addition of new components

You can now use Setup to install all new Microsoft Dynamics AX 2009 components, including Role Centers and Enterprise Portal framework, Workflow, Business Intelligence features, Synchronization for Microsoft Project, and Planning services for Enterprise Portal.

### Support for multiple application instances in the same directory

In Microsoft Dynamics AX 4.0, although you could install more than one application on a computer, you could not install more than one application to the same root directory. In Microsoft Dynamics AX 2009, you can supply an application instance name so that both applications reside in the same folder.

Add, modify, and remove components

If an existing installation resides on a computer and you rerun the setup program, you now have the option to add, modify, or remove components.

Improved service and maintenance

All components, other than the Application Object Server (AOS), reside in a single components installer (.msi) file so that most components can be patched by a single patch (.msp) file. Microsoft Dynamics AX 4.0 used five .msi files, and if a system administrator needed to patch the system, he could be required to run the .msp file five times for a single computer.

## Upgrade

### Code upgrade

#### Detect code upgrade conflicts

For upgrade conflicts, you can still delete obsolete elements, but a new "Auto-resolve property conflicts" option is added to automatically resolve conflicts when one property is changed in your revision and another property is changed in the newest Microsoft revision on the same AOT node. If the same property is changed in both your and the Microsoft versions, it is still marked as a conflict.

#### Upgrade project enhancements

As you resolve conflicts between your customized code and Microsoft Dynamics AX code, you can mark a conflict as resolved, and the conflict icon changes from an alert to a checkmark.

#### Compare Tool enhancements

The Compare Tool has been moved to the same level as Find in the context menu, and you can now start the tool with a shortcut key (CTRL-G). Your preferences are stored, so that you do not have to select the information to compare each time that you open the Compare Tool. By default, more information is displayed. For example, the original value for properties is included, so you can see all three values: your modifications, the Microsoft modifications, and the original value in the same window.

#### Estimation report

You can now print a report with estimates for solving the detected conflicts of the various types. The estimates are broken down to the same granularity as the detected conflicts, which is on a per-node level.

### Data upgrade

The data upgrade process for Microsoft Dynamics AX 2009 has been modified to take advantage of the updated batch framework. A set of batch jobs are run on an Application Object Server (AOS) instance. You can monitor the dependencies between upgrade jobs by using the batch dependencies interface. After the upgrade process starts, no active clients are required. You can use the new test run functionality to allow the data upgrade process to complete with failures so that you can find all points of error in a single pass.

## Technology enhancements

### Layers

The DIP, LOS, and LOP layers have been replaced with SL1, SL2, and SL3 to enable deployment of modules and functionality that add to or extend Microsoft Dynamics AX 2009 core functionality. Industry Solutions and other ISV applications continue to be deployed in the BUP layer. When upgrading, the new layers are installed using standard Microsoft Dynamics AX 2009 tools. The DIS layer is renamed to HFX and is reserved for use by Microsoft.

There are now eight layers that share IDs 1 through 20000. Application object IDs are now combined and allocated for the layers as shown in the following table.

Layer	Application object ID range
SYS	1-20000
SYP	1-20000
GLS	1-20000
GLP	1-20000
HFX	1-20000
SL1	1-20000
SL2	1-20000
SL3	1-20000

#### Workflow

The Microsoft Dynamics AX 2009 workflow infrastructure enables user configurable workflows in Microsoft Dynamics AX 2009 application modules with specific focus on task and approval workflows. The workflow runtime manages configuration and execution of workflows while the application modules will manage activation and business logic associated with workflows.

There is a new node in the Application Object Tree (AOT) named Workflow. Within the workflow node, you can create workflow templates, categories, tasks, and approvals. Workflow templates are the basis for creating workflow configurations in the application. The workflow template defines the data fields that the workflow operates over, tasks and approvals, and event handlers to run business logic during the workflow. The workflow category determines whether a workflow template is available in a specific module. Workflow tasks are single step units of work defined in the AOT. Workflow approvals are specialized tasks that can contain many steps, and support an approval process. Microsoft Dynamics AX 2009 workflow has three workflow providers. The due date provider is used to select a date and time for completion of a workflow, workflow task, or workflow approval step based on the calendar set up in Microsoft Dynamics AX 2009. The participant provider resolves assignment of a workflow to a user group. The hierarchy provider resolves assignment of a workflow to a user within a user group based on conditions set up by the user.

#### Business Connector

COM Business Connector is no longer going to be supported in a future release. If you need to install COM Business Connector, you must install from the command line.

#### Version Control System Integration

MorphX, the Microsoft Dynamics AX 2009 Integrated Development Environment, can now integrate with more version control management systems.

- Features for Microsoft Visual Studio Team Foundation Server (TFS) version control include concurrent development, isolated development, change description, change history, change list support, and quality bar enforcement.
- MorphX VCS, which is included with Microsoft Dynamics AX 2009, provides out-of-the-box version control. Features for MorphX VCS include change description, change history, and quality bar enforcement.

#### XML Documentation

You can now write XML documentation in X++ source code to document classes, class methods, and table methods. This XML documentation can be extracted from the source code to create an XML documentation file.

## Reporting Tools for Microsoft Visual Studio

Microsoft Dynamics AX 2009 provides a model-based approach for creating reports by providing project templates and modeling tools that are incorporated into the Microsoft Visual Studio development environment. The reporting tools provided by Microsoft Dynamics AX 2009 are based on a tight integration with SQL Server Reporting Services. The reporting tools allow you to do the following:

- Create reports quickly using the auto design reporting feature. This feature automatically creates a report design based on the report data. Most reports can be created this way.
- Use SQL Report Designer for reports that require a very precise design. SQL Report Designer can be launched directly from within your reporting project in Microsoft Visual Studio.
- Create a consistent look and feel for your reports using style templates. One style template can be applied to many reports. Style templates allow you to separate the style settings from the actual report definition. There are several predefined style templates available. These are standard templates for **Microsoft Dynamics AX 2009** reports created with the reporting tools in Microsoft Visual Studio.
- Preview reports at design time from within the Microsoft Visual Studio development environment.
- Write business logic for your reports in managed code.
- Choose from several different data region types. You can choose from list, table, and matrix data regions. In addition, several chart data region types are supported, including column, bar, line, pie, and doughnut charts.
- Add interactive report features. You can add parameters and filters to sort and filter data, document maps that users navigate to different areas of a report, drill-down and drill-up actions to allow users to expand and collapse areas of data, and drill-through reports to allow users to drill through to additional data in another report.
- Display images in your reports.
- Develop your reports in a neutral language, and then create translated versions of the resource files when you are ready to localize your reports. Standard .NET Framework localization techniques are used to localize the resource files in a reporting project.
- Use the deployment utility that is installed with the reporting extensions to deploy reports to a report server.

Reporting projects created with the reporting tools for Microsoft Visual Studio can be integrated into Microsoft Dynamics AX 2009. Reporting projects are added to the AOD in a packaged format. This allows the reporting projects to be customized, upgraded, and patched using the built-in layering support. Reports can display from menus and forms in the Microsoft Dynamics AX 2009 client and in Enterprise Portal Web parts.

## Navigation pages

Microsoft Dynamics AX 2009 contains new types of forms that you use to view data records and open forms. The new types of forms are known as navigation pages. Navigation pages include the following types of pages:

- A primary list page retrieves and displays a list of data records in the client content pane. A list page also contains an action pane, a filter pane, and optional controls like a preview pane. The action pane contains buttons that perform an action on one or more list page records.
- A secondary list page builds upon an existing list page but modifies the list page data source. The new data source includes data constraints that cause the secondary list page to display a subset of the records from the original list page.
- A content page enables the client content pane to display data in a format other than a list. For example, a content page can use a tree control to represent the organizational hierarchy of a group of records

- An area page contains menu items that open list pages, content pages, forms, reports, classes, jobs, and queries.

To access a navigation page, use the client Navigation Pane or an area page to find and open a specific list page or content page.

#### Queries and views

The AOT includes changes to the view and query objects that enable more flexibility in how you retrieve records from the database. To enable flexibility, the following changes were made to queries and views:

- The AOT query object enables the construction of a query that represents the union of two or more existing data sources. A union retrieves the same type of data from each data source. You can specify whether the query should remove or retain duplicate records.
- The AOT query relation enables more flexibility to define how to join two data sources. The query relation enables you to specify the data source you want to join with the current data source

The AOT view object lets you use a query as a view data source. New views should always use a query for a data source.

#### Composite query

In the AOT, a query that uses another query as its data source is called a composite query. Composite queries are new in MICROSOFT DYNAMICS AX 2009. A composite query is a way to improve the reuse of code and objects. You can add ranges to a composite query, and you can override methods of the original query. A composite query or a regular query can be the data source for other AOT objects such as forms, reports and views.

#### Cross company support

A cross-company query can return data for several companies in a single run. A query does not have to be limited to returning data for the current session company. Central to this functionality is the new X++ keyword `crossCompany`, and the new property `AllowCrossCompany` on Query objects in the AOT.

#### X++ SQL enhancements

The SQL statements in X++ have been enhanced to bring them closer to the functionality of industry standard SQL. The enhancements include better support for inner and outer join clauses, better group by and order by clauses, and better support for using variables as a source of data to be inserted or updated. For more information, see the following topics:

#### X++ enhancements for CLR interop

The following enhancements have been made to the X++ language. These enhancements increase the support for common language runtime (CLR) interoperability.

- `byref` keyword – Support for calling .NET Framework assemblies, those managed by the common language runtime (CLR), has been enhanced by the addition of the `byref` keyword. This enables you to write X++ code that calls a C# method that requires either an out or ref parameter
- .NET framework array support – X++ provides syntax for declaring and allocating arrays of .NET Framework common language runtime (CLR) primitive data types.
- .NET framework enum support – In MICROSOFT DYNAMICS AX 2009, you are now able to reference the members of .NET Framework enum types.

#### Debug a batch job that runs on the AOS

In previous versions of Microsoft Dynamics AX 2009, each batch job ran on the dedicated client. In Microsoft Dynamics AX 2009, the default is for each batch job to run on the Application Object Server (AOS). Yet the developer might want to debug the batch from his client computer. The utility `AxDebug.exe` can now do this.

#### Update cross reference by using AT.exe

The batch system cannot update cross-reference information in Microsoft Dynamics AX 2009. The msCoName Windows Task Scheduler interface (or AT.exe) can be used to run a cross-reference update beginning in the late evening, so it completes before morning.

#### E-signature subsystem support

Microsoft Dynamics AX 2009 does not provide a complete system for the capture and processing of electronic signatures. But it does provide a kernel event and an editable event method. These can be the foundation for an electronic signature subsystem to be developed by partners.

#### Update and delete

AIF now supports the ability to update and delete data in Microsoft Dynamics AX 2009 through document exchange. Two new actions enable the ability to update or delete a single record or multiple records. The Axd Wizard is now the AIF Document Service Wizard and enables developers to create custom documents that support updating and deleting data.

#### Programming model changes

Documents are now exposed as services making them more flexible and customizable. Service operations can now be consumed from external AIF clients as well as directly from X++ code. The AIF framework has been updated to enable developers to expose X++ business logic as WCF services. ASMX Web services have been replaced with WCF services enabling new functionality such as message encryption.

#### Consume web services

Microsoft Dynamics AX 2009 provides the ability to consume Web services from within X++. Creating a service reference to an external Web service generates a .NET service proxy that enables the service to be available through IntelliSense within X++. The external Web service can be consumed by Microsoft Dynamics AX 2009 using the .NET service proxy through CLR interop.

#### Performance

AIF now supports the ability to scale up message processing when using the AIF adapters by adding AOSs. You can now define whether messages are processed sequentially or in parallel. If parallelism is implemented, messages can be processed in any order by multiple AOSs. After implementing parallel message processing, specific messages can still be designated for sequential processing.

#### New documents

AIF includes support for an enlarged set of frequently used documents. Documents new to Microsoft Dynamics AX 2009 include the following.

Document	Supported service operations (Create, Read, Update, Delete)
Address	CRUD
Bill of Materials (BOM)	CR
Cash Discount	R
Contact Person	CRUD
Credit Card	C
Customer	CRUD
Customer Group	R
Customer Payment Journal	C

Document	Supported service operations (Create, Read, Update, Delete)
Expense Report	CR
Fixed Asset	CRU
Fixed Asset Condition	R
Fixed Asset Group	R
Fixed Asset Location	R
Fixed Asset Major Type	R
General Journal	CR
Inventory profit/loss journal	C
Item	CR
Item Dimension (Color)	R
Item Dimension (Configuration)	R
Item Dimension (Size)	R
Item Dimension Combination	R
Payment Terms	R
Product Groups	R
Product Picking List	C
Project Hour Journal	C
Project Invoice	R
Return Order	CR
Return Order Acknowledgment	R
Route Card	C
Sales Invoice	R
Sales E-Invoice	R
Service Agreement	R
Service Order	CRUD
Shipping Methods	R
Route Card	C
Unit	R
Unit Conversion	R
Vendor	CR
Vendor Group	CR
Vendor Payment	R
Warehouse	R

In addition to these new documents, the sales order document has been updated to support multi-site functionality as well as the ability to update and delete data.

Partners and customers can easily customize and extend the existing application programming interfaces (APIs) by using the Microsoft Dynamics AX 2009 software development kit (SDK). The SDK includes a new service wizard that developers can use to easily create their own custom document services.

### MorphX

Several usability enhancements and new features were added to the MorphX development environment. These enhancements address developer pain points to improve the development environment usability and to help increase developer productivity.

The following features were added to the AOT:

- AOT caption that contains the path of the selected object.
- Support for table field drag-and-drop operations between tables.
- Find-as-you-type support to Property sheet drop-down lists.
- Enhanced menu navigation for the Add New menu in Projects.

The following enhancements were made to the X++ Editor:

- Removed the limit to the number of Undo actions.
- Increased the default window size.

The Embedded Resources tool was updated and added to the Development Tools menu.

The following table contains keyboard shortcuts that were added to the development environment.

Command	Shortcut key
Compare	CTRL+G
Projects	CTRL+Shift+P
Open new workspace	CTRL+W
Import	CTRL+Shift+I
Version control parameters	CTRL+Shift+V

### Business Intelligence

The Business Intelligence infrastructure enables you to generate Unified Dimensional Models (UDMs) by leveraging metadata from the Microsoft Dynamics AX 2009 relational data model. You can specify measures and dimensions in the AOT to define Online Analytical Processing (OLAP) cubes. A perspective is used to identify the tables that contain measures and dimensions for a cube. You can generate a Business Intelligence project and manage and customize the cubes using SQL Server Business Intelligence Development Studio.

### Documentation Changes

The following changes have been made to the documentation for developers in Microsoft Dynamics AX 2009:

- New scenario-based documentation  
The documentation for Microsoft Dynamics AX 2009 contains more "How to" topics and walkthroughs. These topics take you step-by-step through various tasks in the development environment.
- Class and table method documentation

Reference documentation has been added for many class and table methods. We know that there are still gaps and we will be publishing updates to the reference documentation on MSDN.

- Improved table documentation

The reference topics for tables now contain a description that explains what each table is used for. These topics also contain information about the table methods, fields, relations, and indexes.

- Help also available in Visual Studio

Development for the Enterprise Portal, Reporting, and the .NET Business Connector is performed in Visual Studio and in MorphX. So the help for those components is available in both tools.

- More documentation for legacy features

We have continued to add new documentation on MSDN since the release of Microsoft Dynamics AX 4.0. All this new content has been incorporated into the product documentation for Microsoft Dynamics AX 2009.

#### Batch server

Microsoft Dynamics AX 2009 introduces a new batch framework that provides the capability of server-bound batches without the need for a client. All new batch jobs use the new batch framework. Most existing batch jobs from previous releases are being migrated to the new batch framework. Client-side batches are supported in Microsoft Dynamics AX 2009 but are not recommended.

#### Enhancements to AOS load balanced

Microsoft Dynamics AX 4.0 allowed only a single load-balanced cluster of AOS servers. In Microsoft Dynamics AX 2009, you can create a single or multiple load-balanced clusters of AOS servers. You can decide if a cluster has dedicated load balancers or not. A dedicated load balancer is an AOS server that is configured to respond only to the initial client request and provide a list of all active AOS servers in the cluster. If you configure a cluster without dedicated load balancers, each active AOS server also will act as a load balancer.

#### Application integration framework

Enhancements to AIF in Microsoft Dynamics AX 2009 include the following:

- Create, read, update, and delete (CRUD) operations are now supported. The ability to update and delete data through AIF enables companies to fully integrate Microsoft Dynamics AX 2009 in their business processes.
- The programming model for AIF supports document services that encapsulate business logic and are the interface between Microsoft Dynamics AX 2009 and external systems. The document services can be customized by adding your own methods. Microsoft Dynamics AX 2009 now supports the ability to expose business logic implemented in X++ as Windows Communication Foundation (WCF) services. All services can be published through AIF asynchronous adapters or through WCF.
- AIF provides functionality for consuming external Web services from within X++. This enables the integration with any external data provided as a Web service.
- Performance improvements include the ability to scale up and handle more messages through parallel message processing and the addition of multiple AOS servers.
- New document services for additional commonly-used documents.

#### 64 bit server components

Microsoft Dynamics AX 2009 server components can be installed on either a 32-bit or a 64-bit operating system. The setup program automatically detects the operating system in use and deploys appropriate 32-bit or 64-bit executable files.

### Active directory import wizard

The following enhancements are made to the Active directory import wizard:

- You can now search by users or user groups within a domain and sort the search results.
- You can search for specific users based on:
  - Domain
  - User Name
  - AD Alias
  - Job Title
  - Department
  - Company
- You can now add all users within an AD user group
- The Microsoft Dynamics AX 2009 user IDs are automatically generated for all the users you add from Active Directory.
- You can customize the Active Directory import wizard for your Active Directory structure as the wizard is now written in X++.

### Version control system integration

MorphX, the Microsoft Dynamics AX 2009 Integrated Development Environment, can now integrate with more version control management systems.

- Features for Microsoft Visual Studio Team Foundation Server (TFS) version control include concurrent development, isolated development, change description, change history, change list support, and quality bar enforcement.
- MorphX VCS, which is included with Microsoft Dynamics AX 2009, provides out-of-the-box version control. Features for MorphX VCS include change description, change history, and quality bar enforcement.

### Reverse engineering tool

The Reverse Engineering Tool supports a new model type. You can now use the Reverse Engineering Tool to generate an .erx file that can be used to create an entity relationship (ER) data model. An ER data model describes the data in a system and provides a means of visualizing tables, views, and their relationships. You can import an .erx file into modeling tools, such as Microsoft Office, Visio, and CA ERwin Data Modeler, where you can create an ER data model from the imported elements.

## Accounts payable

### Track additional vendor profile information

Several fields are added to the Vendors form. The new Locally owned, Small business, and Bid only fields, along with the existing Minority owned, Woman owner, and One-time supplier fields, are in a new Vendor profile section on the Details tab. These fields, along with the new W-9 received field, are useful, for example, if you need to comply with a government contract that requires you to work with a vendor who matches a specific profile.

### Assign payment types to methods of payment

You can associate a system-defined payment type, such as Check, Electronic payment, or Promissory note, with your user-defined methods of payment. You can select the default payment type for a vendor in the Vendors form. Payment types are useful when you validate electronic payments, or to add another level of clarification to user-defined methods of payment.

### Inactivate a vendor bank account

Vendor bank accounts are used when you pay a vendor electronically and directly deposit funds into the vendor bank account. You can use the new Active date, Expiry date, and Status fields in the Vendor bank accounts form to change a vendor bank account to an inactive status. You might do this when a vendor no longer uses a specific bank account, or a specific bank account exists but is not ready to accept payments. In previous releases, vendor bank accounts were always active. Any existing vendor bank accounts will remain active unless you change them.

### Add miscellaneous charges to a purchase order invoice

You can now add or change miscellaneous charges during the process of invoicing a purchase order. The miscellaneous charges can be applied to the invoice header or they can be allocated to the invoice lines. You also can connect the transactions to the purchase order header or lines so that you can find and correct discrepancies, if necessary. For each customer/vendor miscellaneous charge code, you can compare miscellaneous charges values on purchase orders and invoices.

### Define remit-to addresses

You can now define a remit-to address for each vendor. When you generate checks, the remit-to address is used as the payment address for the vendor. If a remit-to address is not specified for the vendor, the primary address of the vendor is used, as in previous releases.

Note: The Remit-to address does not replace the existing Payment address type.

### Purchase requisition workflow

To use the new purchase requisition feature, you must configure the purchase requisition workflow. A purchase requisition workflow template will be shipped with Microsoft Dynamics AX.

### Quickly view payment history from the Vendors form

You can now access payments that you have made to a selected vendor using the new Payment history menu option from the Inquiry button in the Vendors form. The option opens the Payment history inquiry form, where you can view the date of payment, method of payment, amount, bank used, check number, payment status, and remittance number, and also search for an invoice number or purchase order number.

### Accounts payable invoice matching

You can now match vendor invoice information to the related purchase orders and packing slips. Prices and quantities on the invoice will be checked to be sure that they match what was expected, based on the purchase order and the packing slip. You can specify price tolerances that are used in the matching process.

The following features are related to Accounts payable invoice matching:

- You can invoice a purchase order by packing slip.
- You can save an invoice for a purchase order prior to posting, so that you can verify information.
- You can enter miscellaneous charge codes that were not included on the original purchase order, so that the invoice amount matches the invoice that you receive from your vendor.

### Centralized vendor payments

Organizations that are comprised of multiple companies can now create and manage payments using a central company. This eliminates the need to enter the same transaction in multiple companies and saves you time by streamlining the payment proposal process, the settlement process, open transaction editing, and closed transaction editing for cross-company payments. Intercompany accounting now includes options to determine which company within the organization will receive the realized gain or realized loss transactions, and how cash discount transactions that are related to a cross-company payment will be handled.

### Withholding tax transaction text

You can now identify withholding tax transactions with the payments that they are associated with more easily. The transaction text entered in a payment journal is copied automatically to the withholding tax record when the payment is posted. You can use the new Vendor transaction inquiry form to query on withholding tax transactions.

### View a check total in the Vendor payment journal report

You can view the total number of checks associated with each payment journal in the Vendor payment journal report. Use totals to easily verify that physical checks match total checks.

### Product and category catalogs for purchase requisitioning

It is now possible to create dedicated product catalogs for purchase requisitioning where companies define which items must be available when creating purchase requisitions. It is also possible to create categories for non-catalog items and make them available for use in purchase requisitions.

### Save a vendor invoice for a purchase order

You can now save a vendor invoice for a purchase order in the Posting invoice form and post it later. You also can match packing slips that are connected to a purchase order with the invoice.

### Purchase requisitions

You can now create purchase requisitions in Microsoft Dynamics AX to register purchase requirements. When the purchase department has approved the requisitions, purchase orders are created automatically. Companies can define a purchase requisition workflow that controls the purchase requisition process before the purchase requisition is accepted and a purchase order is created and submitted to vendors.

You can create purchase requisitions in both the Enterprise Portal and the Microsoft Dynamics AX client.

### Changes to the Purchase order and Posting forms

The following enhancements have been made to the Purchase order form and the Posting form:

- The cursor moves to the next order line automatically after completing a purchase order line.
- Date information is now available at the bottom of the Purchase order form, which makes it easier to view and change dates.
- Reference fields, such as Vendor reference and RMA number fields, have been moved from the Other tab to the References tab in the Purchase order form.
- A new Print/Print preview button makes it easier to print from journals.
- A Pro forma button in the Purchase order form makes it easier to print pro forma documents for purchase orders.
- You can now be prompted for the value in Quantity field in the Posting form when posting documents. Select the Prompt quantity field value when posting documents check box in the Accounts payable parameters form. The default values for the Quantity field are:
  - Purchase order – All
  - Receipt list – All
  - Packing slip – All
  - Invoice – Packing slip

### Request for quotes

You can send a request for a quote to a vendor to request information about prices and delivery times for multiple items. Request for quotes replaces the purchase order type Quotation, which will not be available in Dynamics AX 2009.

## Accounts receivable

### Shipping carrier integration

Shipping software from Kewill Clippership, UPS WorldShip, and FedEx ShipManager integrates with Microsoft Dynamics AX and provides information, such as freight charges and tracking numbers. The information is then automatically transferred into sales orders and invoices.

### Accounts receivable invoice hold

You can place an Accounts receivable transaction on hold and prevent it from being posted until a future date that you specify in the Release date field. Placing a transaction on hold makes the unposted transaction available for review and analysis.

### Tracking a customer using a government ID number

You can now enter a government-established identification number for an organization, such as a tax identification number or employer identification number (EIN), or an individual identification number, such as a license number. This number can be assigned to an Accounts receivable customer record as a unique identifier for the record. You can also require users to enter the ID numbers always, or only if the customer's credit exceeds a specific amount.

### Credit cards preapprovals and approvals

New interfaces to Microsoft Dynamics Payment Services and Authorize.NET allow you to preauthorize credit card payments for sales orders. The preauthorization includes verification of the credit card information and reduces the customer's available credit for the card used. When the order is fulfilled, the credit card is billed for the amount of the transaction.

At this time, this feature is available only for use with Microsoft Dynamics Payment Services and Authorize.NET that process transactions through banks in the United States, using US dollars.

### Centralized customer payments

Organizations that are comprised of multiple companies can now create and manage payments using a central company. This eliminates the need to enter the same transaction in multiple companies and saves you time by streamlining the payment proposal process, the settlement process, open transaction editing, and closed transaction editing for cross-company payments. Intercompany accounting now includes options to determine which company within the organization will receive the realized gain or realized loss transactions, and how cash discount transactions that are related to a cross-company payment will be handled.

### Centralized customer statements

You can now print customer statements from one company (the statement company) on behalf of other companies (the activity companies) in your organization. You can receive payments in either the statement company or an activity company.

### Set up reason codes for Accounts receivable

You can now set up Reason codes using the Reasons form from within Accounts receivable. Reasons are entered for transactions to provide standard explanations and to allow more efficient tracking.

### Changes to the Sales order and Posting forms

The following enhancements have been made to the Sales order form and the Posting form:

- Access to price information for specific sales order lines. Click Inquiries > Prices in the Sales order lines pane to display price information for a selected sales order line.
- The cursor moves to the next order line automatically after completing a sales line.
- Date information is now available at the bottom of the Sales order form, which makes it easier to view and change dates.

- A Delivery tab, similar to the one in the Sales order header pane, is now available in the Sales order lines pane. The tab contains date information fields that were previously located on the Setup tab.
- The Available dates button that was in Microsoft Dynamics AX 4.0, has been renamed to Simulate dates, and the button has been moved to the new Delivery tab in the Sales order lines pane.
- The Customer requisition field, Customer number field, and the RMA number fields have been moved from the Other tab in the Sales order form to the References tab for easier access.
- A new Print/Print preview button makes it easier to print from journals.
- A Pro forma button in the Sales order form makes it easier to print pro forma documents for sales orders.
- You can now be prompted for the value in Quantity field in the Posting form when posting documents. Select the Prompt quantity field value when posting documents check box in the Accounts receivable parameters form. The default values for the Quantity field are:
  - Confirmation – All
  - Picking list – All
  - Packing slip – Picked
  - Invoice – Packing slip

#### Look up payment customer number by invoice number

You can enter or select a single invoice number when you enter customer payments in a payment journal. The customer number is available automatically, based on the invoice number. A payment journal line is created for the customer, and the invoice is marked for settlement.

#### Separate layout for free text invoices

The process that generates free text invoice documents is now separate from the sales order invoice document process. Sales order invoices and free text invoices can be customized independently of each other, which allow you to specify content, notes, and print management setup for free text invoices.

#### Post invoices based on packing slips

You can post sales or purchase order invoices, based on packing slips or on a selection of packing slips and shipping dates. It is also possible to summarize sales order invoices based on a packing slip number.

## Bank

#### Check reversals journal and Deposit slip payment cancellations journal

You can use two new journals to review payment reversals and cancellations before rejecting or posting them. In previous releases, when you clicked the Payment reversal button in the Check form or clicked the Cancel payment button in the Deposit slip form, the reversal or cancellation was posted immediately. Now you can either post immediately or review reversals and cancellations before you reject or post them. Reviews might help prevent fraud and identify errors.

## CRM

#### Global address book

The global address book is a centralized form where you can store information about customers, vendors, business relations, contacts, employees, and anyone else that your company interacts with.

### Import leads and business sectors

You can import files to create records for lead records and business sectors.

### Define processes

You have the flexibility to create multiple types of sales processes for the different functions in CRM, such as qualifying leads, telemarketing, campaigns, and sales.

### Global address book

The global address book is a repository for every person or organization that your organization comes in contact with. You also can track employee information in this table. Information about all of these people is tracked in this form. Customers can be linked to each other across all of Microsoft Dynamics AX, and multiple entities can be assigned in the form, as well.

### Sales force automation (SFA) integration with Enterprise Portal

This feature provides the flexibility to make organizational decisions. Employees are allowed to access all of the functionality and information they need to perform their jobs without installing additional applications on their computers. Also, salespeople can log on from any computer that has an internet connection, which extends their ability to close more deals.

If your organization outsources departments, you can still retain ownership of the data by allowing vendors to access the information from the main database.

### Lead management in CRM

You can gather and store information about the potential purchase of a product or service by centralizing information. You can create, review, update, or delete information about leads, and you can define rules and create stages or activities that will assist you in qualifying or disqualifying a lead.

You also can associate responsibilities, employees, campaigns, and questionnaire tracking to your stored information so that you can turn leads into opportunities and acquire customers.

### Opportunity management in CRM

You can create, develop, and close sales deals while tracking the information through a central location. All contacts, competitors, partners, products, quoted prices, quantities, and sales stages are stored together to ensure that you always know where a potential sale is in the sales process.

### Responsibilities in CRM

Because every organization has different processes for various activities, such as marketing campaigns or sales, you now can identify process steps for each activity and then assign the functions to the appropriate individuals.

## Enterprise portal

### Compliance module site

The Compliance module site is a central location where users who manage compliance for their organizations can view and monitor compliance-related information. You can use this site to store process documents and view database logs, reports, charts, and key risk indicators. Monitoring this information in a central repository will help you to better understand compliance requirements and how they integrate with your business processes.

Enterprise Portal and its applications allow you to interact with Microsoft Dynamics AX from a Web browser. It includes more forms and Web pages than were previously available, and also includes keyboard support.

### Role Centers

Microsoft Dynamics AX and the Enterprise Portal framework now host customizable homepages called Role Centers that display specific data, reports, alerts, and common tasks associated with a user's role

---

within an organization. You can access Role Centers from the Microsoft Dynamics AX or from an Enterprise Portal Web site.

#### Enhancements

The following enhancements have been made to the Enterprise Portal user interface:

- The user interface is more interactive and responsive because the Web pages use Asynchronous JavaScript and XML (AJAX).
- Individual Web parts are refreshed when you click a link, as opposed to refreshing the entire page, as was the case in previous versions of Enterprise Portal.
- You can now perform actions on selected items in lists, including list previews, and lists can now be sorted, filtered, and grouped. List views can be changed.
- The method of accessing all Enterprise Portal pages is consistent.

- Layouts in Enterprise Portal rely on Windows SharePoint Services.
- Users with access to multiple companies can change companies in Enterprise Portal by selecting a different company from a menu.
- If you deploy Role Centers in Enterprise Portal, your users can view graphs, charts, list, and reports. If your organization uses Microsoft Office SharePoint Server, users can also view key performance indicators and activity cues.

#### Information for Enterprise Portal administrators

Some of the biggest changes and enhancements in Enterprise Portal address the needs of Enterprise Portal administrators.

Windows SharePoint Services	This version of Enterprise Portal requires either Windows SharePoint Services (WSS) 3.0 or Microsoft Office SharePoint Server.
Installation	Enterprise Portal is now installed using the Setup wizard. The wizard checks to see if the server already has SharePoint Services and Internet Information Services installed, and installs the applications if they are not already installed.
Business Connector (BC) proxy configuration	The AXSetup.exe utility automates the process of configuring the proxy in various locations on the Enterprise Portal server. The AXSetup.exe utility prompts you for the proxy credentials when you install Enterprise Portal. The utility then configures the proxy credentials in the following locations: <ul style="list-style-type: none"> <li>• Microsoft Dynamics AX</li> <li>• Windows user groups</li> <li>• Internet Information Services (IIS)</li> <li>• Microsoft SQL Server</li> </ul>
Internet Information Services	The AXSetup.exe utility automates the process of configuring security, ASP.NET, and application pools in IIS.
Site creation and deployment	By default, when you install Enterprise Portal, the AXSetup.exe utility creates an Enterprise Portal site, extends that site in SharePoint services, and deploys the site. Enterprise Portal site creation and deployment is now a one-click process.
User profiles	Administrators can designate which Enterprise Portal site appears as a user's Role Center (home page). The administrator must create a profile in the User profiles form and then specify this profile for a selected user on the Users form (Profile tab).

## Expense management

### Set upper diem rules

The implementation of per diem rules gives you more flexibility and makes it possible to create per diem rules around multiple sets of criteria, such as different countries.

### Personal expense options

You now have two options for your company to use with regard to reconciling employee personal expenses that have been charged to a company account.

**You can select to pay the personal expenses and then debit the employee's account for the transaction amount, or you can choose to not pay the personal expenses, but create a report that shows that personal expenses were charged on the expense report.**

### Split expenses at the transaction level

You can split expenses at the transaction level across projects, accounts, and dimensions. You can see the transactions in the Expense report form.

### Define and apply policy violations

Defining policy violations allows administrators to not only define the minimum and maximum values to be entered against expense types, but also flags any user who abuses these policies. With this feature in place, a user will not be allowed to submit an expense report that violates the policies set for expenses.

### Import credit cards

Importing credit card and travel account transactions into Expense management allows employees to add the transactions to their expense reports.

### Enter expenses in Enterprise Portal

You can enter expense reports and expense report line items in Enterprise Portal, which provides flexibility to enter work expenses. Expense reports can also be submitted, approved, or rejected. Approved reports can be transferred back to the general ledger in the Microsoft Dynamics AX client.

### Use the Hotel wizard to itemize expense reports

You can now itemize your hotel bills into line items when creating an expense report. The cost of the hotel stay can be separated, as well as other costs incurred such as broadband internet use and room service.

### Expense management workflow

You can define the approval workflow process for your organization, based on predefined rules. Notifications and workflow actions can be added to the process to ensure that all the correct steps are taken in the expense report submittal and approval process.

### Category integration with Project and Production

Overlapping tables have been combined to make the integration of expense types and categories more manageable.

### Define policy violations in Expense management

Defining policy violations allows administrators to not only define the minimum and maximum values to be entered against expense types, but also indicates if a user has abused the expense management policies. For example, a user will not be allowed to submit an expense report that violates the policies set for expenses.

### View expense reports from General ledger

As you view voucher transactions in General ledger, the inquiry is at a very high level. However, now you can open the original expense report from within General ledger to see detailed information about the voucher without having to search for the correct expense report.

## Financials

Note: The following features are common to more than one financial module. Individual financial modules and their features are described in separate sections for General ledger, Bank, Fixed assets, Accounts payable, and Accounts receivable.

### Approval workflow for financial journals

You can set up automated approval workflows for selected financials journals on a per journal name basis. For each financial journal name, you can select whether to use the manual approval process that was available in previous versions, or to use the new workflow journal approval process. If the workflow journal approval is activated, you can submit a journal to the workflow subsystem for approval. The workflow subsystem creates approvals, tasks, and user-specific notifications, and then assigns them to the appropriate users and roles, as identified in the workflow.

### Extending the use of reason codes for Financials

Reason codes are used to enter standard explanations for transactions. The use and management of reason codes has been expanded. Previously reason codes were available for Fixed assets only. You can now use reason codes with the following other account types: Bank, Customer, Ledger and Vendor. The setup process has also been expanded to include the other account types.

### Allow users to post only journals that they create

You can specify—by journal name—which users or user groups can post only journals that they create. Use the Posting restrictions button in the Journal names form to open the new Posting restrictions form, where you specify restrictions for the selected journal name. Posting restrictions provide you with an additional level of posting control and can help prevent posting mistakes.

### Easily post multiple financial journals

You can now post more than one journal at a time using the Journal form for financial journals within General ledger, Accounts payable, and Accounts receivable. This allows users who have the most knowledge of the journals to initiate the posting process, which saves time. Multiple journals can be submitted for batch posting, as well. You also can post multiple journals from the new Accounts Receivable Payment Journals and Accounts Payable Payment Journals list pages.

### Voucher templates

You can mark vouchers as templates and base future transactions on the templates. When you save the voucher template, you must specify how the template will be used when creating new voucher amounts. You can select whether to use the original voucher total and line amounts or the percentage of the original voucher total that is represented by each voucher line. When you create a new voucher based on a percent type voucher template, the percentage calculated for each new line is applied to the value entered in the Voucher amounts form to determine the amount for that new voucher line. You can use voucher templates with a general journal or an accounts payable invoice journal.

### Require Social security and organization numbers in Accounts receivable and Accounts payable

You now can set up Accounts receivable and Accounts payable so that a social security number is required for individuals and an organization number is required for organizations.

## Fixed assets

### Update replacement costs and insured values form

You can change the replacement cost and insured value for selected fixed assets using a new Update replacement costs and insured values periodic form. For example, you can increase the replacement cost by three percent for all office furniture. In previous releases, you had to manually increase the replacement cost or insured value for each fixed asset.

### Create new fixed assets from Accounts payable

For purchase orders for new fixed assets, you can create a new fixed asset in Fixed assets when the packing slip or invoice is posted. When you select the New fixed asset field and then post a packing slip or invoice, a new fixed asset is created with a Not yet acquired status. You can also specify whether posting the invoice changes the status of the new asset to Open and posts an acquisition transaction for the asset.

In previous releases, you could create a purchase order only for an existing fixed asset, and posting an invoice always posted an acquisition transaction and changed the asset to an Open status.

Use new fields in the General ledger parameters form to specify whether to continue to use the existing method. You can also specify that only a specific user group can post asset acquisitions from purchase orders or invoices, and you can use acquisition proposals in the Fixed assets journal to retrieve purchase invoices that involve an asset.

### Provide reasons for changes

You can now enter a reason for a fixed asset transaction or for a change to the Service life, Depreciation periods, Expected scrap value, and Sales value fields. You can also use the new Change history inquiry option from a value model or depreciation book to view a history of changes to these four fields. More useful than transaction text alone, reasons allow you to view transaction history by reason code and help auditors to reconstruct asset transactions and changes. You can specify whether reason codes are required when you set them up.

### Reverse an asset transaction even if it is not the latest transaction

In previous versions of Microsoft Dynamics AX, the ability to reverse or revoke fixed asset transactions—or Accounts payable and Accounts receivable transactions associated with fixed assets—was limited to the last transaction posted to the value model or depreciation book for the asset. That limitation has been removed.

### Capitalization threshold

You can specify a Capitalization threshold for an asset group. For assets in the group that cost less than the threshold amount, the Depreciation check box on the Value model form is not selected, and the depreciation will not be taken for the asset.

You can also group similar items that you consider as a single asset. To track assets of this type, Quantity and Unit of measure (UOM) fields have been added to the asset record.

### Additions form

You can track improvements and add-ons to existing fixed assets. In the Fixed assets form, click the Additions button to display the Additions form. The Additions form is useful to track an improvement to an existing fixed asset, such as a paint job, or to track a related asset that cannot exist on its own, such as a battery for a laptop.

### Linking assets and projects

You can associate a project with the assets affected by the project. Each phase or task within a project can be linked to one asset. This allows you to quickly review—from the asset record—a summary of the projects that have caused any type of work, maintenance, or improvement against the asset.

### Reverse fixed asset transactions

You can reverse fixed asset transactions—except "Inventory to fixed asset" acquisition transactions—and all related transactions that were created when the original transaction was posted. Also, for Accounts payable and Accounts receivable transactions that you could reverse in previous versions, you can now reverse those transactions even when fixed assets are associated with them.

### Set up reason codes for Fixed assets

You can now set up reason codes using the new Reasons form for Fixed assets. Reason codes help explain why transactions occur.

## Enhanced asset tracking

Three new Fixed asset setup forms are added to Microsoft Dynamics AX:

- Acquisition methods
- Asset conditions
- Major types

Additional asset and asset group fields have been added to the Fixed assets form and Fixed asset groups form. There are two new fields—Acquisition method and Replacement date—in both the Fixed asset value models form and Depreciation books form, and there is a new Address tab in the Locations form.

## General ledger

### Reversing ledger entries

You now can create reversing entries in the general journal. When a transaction with a reversing date is posted, the original transaction is posted, based on the transaction date, and the transaction reversal is posted, based on the reversing date.

### Fill utility

The fill utility allows users who have the proper security settings to automatically mass update a range of records at the same time instead of updating each record individually.

### General ledger reason codes and transaction hold

You now can enter a reason for journal transactions in the General ledger, using a Reason code and a Comment, and enter an expanded number of characters for transaction text. In addition, you can prevent a voucher from being posted until a specified date. Entering a future release date places a transaction on hold, which prevents posting while making the transaction available for review and analysis.

### Mandatory payment preference

You can set up a ledger account to require that a payment preference is required when a transaction is posted to that account.

### Taxes and ledger accounts

You can set up General ledger so that a tax direction has to be entered for each account. You also can restrict the tax codes that are allowed for any specific ledger account.

### Tax groups for customers and vendors

You can specify that a tax group is mandatory for customers and vendors. You also can restrict the tax codes that are allowed for customers and vendors, and you can specify a default tax group for customer and vendor groups.

### Tax groups for inventory management

You can specify that a tax group is mandatory for items. You also can restrict the tax codes that are allowed for items, and you can specify a default tax group for the item group.

### Tax groups for free text invoices

You can specify that a tax group is mandatory when you create a free text invoice.

### Ledger account categories

You now can classify a ledger account by a ledger account category, which is a new attribute for ledger accounts.

### Intercompany eliminations

Elimination transactions are required when a parent company does business with one or more subsidiary companies and uses consolidated financial reporting. Some of the transactions that occur between the companies must be eliminated because consolidated financial statements should only include transactions that take place between the consolidated entity and the other entities outside of the consolidated group. Because of this, transactions between a parent company and its subsidiary companies must be removed—or—eliminated.

You can set up elimination rules to create elimination transactions in a company specified as the destination company for eliminations (the elimination company). The elimination journals can be generated during the consolidations process or using an elimination journal proposal.

### Automatic allocation processing

You can define allocation rules to distribute posted amounts to destination accounts or to dimensions at any time from automatically created journal entries.

### Track budget revisions

You can revise a budget in the Ledger budget form and view the budget changes, as well as the original budget amounts. If you track revisions for a budget, you cannot modify or delete existing budget amounts, but instead, you can create separate budget revision lines in the Ledger budget form.

### Post net income and net loss to multiple dimensions

You can post net income or net loss amounts to multiple equity and dimension combinations during the year-end closing process.

## Human resources

### Performance management

You can now implement effective, end-to-end processes and policies in Human resources to improve performance throughout your organization. This includes improved tools for identifying, developing, and tracking employee skills, and setting, and monitoring employee goals and activities. Additionally, interaction with compensation management facilitates transparent pay-per-performance guidelines.

### Compensation management

Human resources for Microsoft Dynamics AX now provides a suite of compensation management functionality, including the ability to define various compensation plans for both fixed salaries and variable (or incentive) packages. You can run controlled compensation processes, capture compensation transactions that can interact with a performance management system to facilitate pay for performance, and produce comprehensive, easy-to-use reports and analytics.

### Employee setup

You can use the updated Employee form to enter employee information that integrates with both Human resources and Payroll.

### Support for Compliance with the Americans with Disabilities Act

The ability to manage the information required to conform to mandates specified in Titles I and V of the Americans with Disabilities Act (ADA), which is monitored by the U.S. Equal Opportunity Employment Commission (EEOC), has been added. This will help to improve your company's ability to handle requests for special accommodations made by applicants and employees in relation to one or more specific tasks required by a position.

### Support for compliance with Form I-9

Compliance with employment provisions and regulations required by various entities within the United States government has been added. You can collect, store, and retrieve information that is needed to comply with Form I-9 regulations from areas of the application that support employment processes.

## Inventory management

### Refill and pallet transport improvements

The processes of refilling pallets and transporting pallets of items have been enhanced so that you can move less than a full pallet from the bulk location to the picking location. This means that it is easier to ensure that the picking location is always adequately stocked and ready to fulfill customer requests, which is especially useful when the picking location has less capacity than the bulk location.

### Improved solution to handle receipt and inspection of returned items

The transparency of the return process is improved for employees who handle incoming goods, as well as for employees who handle the crediting of the returned items.

From the new Item arrival form, which you will use to track incoming goods, you can register and update customer returns, along with other receipts in the warehouse. The employee who is responsible for receiving goods in the warehouse can easily retrieve RMA numbers and identify expected returns. You control the process of returning items, and easily update returned items, based on the packing slip. Then you can create replacement orders.

You also can create quarantine orders as they are needed for returned items that need inspection and for the disposal process, and then create a replacement order.

### Outbound process changes

The following enhancements have been made to the outbound process from picking to loading of shipments:

- **Configure outbound rules** - Configurable outbound rules make it easier to automatically send and print relevant shipment documents.
- **Pick an item** - After picking an item, the warehouse worker can specify where items that have been picked should be delivered for the next step in the outbound process or to internal production.
- **Deliver an item** - When items have been delivered to the outbound dock, the warehouse worker can evaluate whether repacking or consolidating shipments is required.

Features that pertain to loading and unloading shipments allow the warehouse worker to control the last step in the outbound process.

- **Create shipments** -The template to use for shipments that are created automatically is now controlled by explicitly defining priorities for templates.

You can add output orders to a shipment up until and including the stage when the shipment has been packed. However, you can set up and define how late in the process that automatic additions should be allowed.

- **Reserve shipments** - The reservation process has been improved to give the shipping manager control of which warehouse to reserve items at, as well as which of the six reservation methods to use.

If all items have not been reserved, you can rerun the shipment reservation to include partial reservations and to add items to an ongoing shipping process. Picking can be started of the items that are on-hand, even if the complete shipment has not been reserved.

If multisite is activated, reservations can be only from warehouses within the same site.

- **Pick items across modules** - Three different methods of picking have been merged into one picking method, so that orders are handled in the same way for sales order picking, transfer order picking, and warehouse management picking.

A new picking registration form has also been created.

- Picking process - The process of updating all items as picked when they are from the same location has been improved by allowing multiple lines to be selected and picked in one operation.

Picking location refill has been improved by automatically activating a refill pallet transport in cases where a shipment reservation results in items missing in the picking location.

Output pallet transports are no longer controlled by the inbound pallet quantity set up for an item, but can be defined separately.

#### Update reservations and physical inventory in a batch

The following changes have been made to make handling shipments easier:

- You can create a batch for reservations to include all consolidated shipments that have the appropriate status.
- You can post sales orders and transfer orders that are ready for physical update in a batch, based on shipment information, and you can monitor the status of the shipment.
- You can ship transfer orders that are ready to be updated in batches.

#### Address information is added to the new Site form

You can enter and store address information for a site.

#### A financial dimension is linked to inventory-related transactions

You can configure a link between a financial dimension and the site inventory dimension. This allows you to trace profit and loss figures directly to an operational site, and still conduct your official financial reporting at the company level.

#### Production cost variances

You can calculate and enter distinct production variances for lot size, price, quantity, and substitution variances per cost group.

#### Set up production parameters per site

You can specify production parameters on a site basis.

#### Profit and loss accounts for item transfers

When you transfer items, general ledger posting to specified transfer profit and transfer loss accounts occurs in either of the following situations:

- When issue and receipt sites differ
- When issue and receipt item dimensions differ

#### Improved inventory closing

The labels on the buttons in the Closing and adjustment form have been changed, so the steps in the closing process are easier to understand. The new design of the batch framework helps to secure the running of an inventory closing in a batch, and the helpers for the closing will now be started automatically.

#### Keep inventory dimensions consistent within lots

The inventory dimension framework is enhanced so that item dimensions (size, color, configuration) and the storage dimension, site, are kept the same for a source transaction and any inventory transactions that are generated with the same lot ID.

### Improved weighted average performance

If you are costing your inventory based on the weighted average inventory models, the inventory closing process has been improved to introduce better accuracy and faster run time on high-volume items. The following parameters have been removed:

- Minimum average quantity
- Minimum settle quantity percent
- Minimum settle amount

Transactions that have an Inventory closing weighted average type can be created as a result of your inventory closing.

### Add electronic signatures to manufacturing processes

In many regulated industries, such as pharmaceuticals, food and beverage, aerospace, and defense, electronic signature is a regulations compliance requirement. Electronic signature is now available for the following manufacturing processes:

- Production orders: Release, Report as finished, Approval
- Bill of materials: Version approval, Version activate
- Route: Approval, Version approval, Version activate

After completing one of the processes, you must sign electronically by entering a user name and password.

Electronic signatures can be customized for your particular organizational requirements.

### Plan for the arrival of expected items

A new form is available that you can use to estimate and plan the resource capacity that is necessary to efficiently handle incoming goods. Registering the arrival of new items also is easier because much of the required information, such as location and warehouse, is based on the previous setup and is available automatically during the arrival registration process.

### Break down costs for production and manufactured items

You can see the breakdown of cost information per component across production levels for production and manufactured items.

### Price calculation scheme

You can compare and understand price composition and calculate indirect costs on the basis of other costs or resources. You also can calculate surcharges and rates on your prices and identify whether costs are fixed or variable.

### Value inventory by standard costs

When you assign costs, the change immediately will affect your inventory value. You can value your inventory and work in process (WIP) according to the standard cost price, thus making manual adjustments unnecessary to comply with GAAP. This also applies to tracking variance on production, purchase price, and invoice price.

### Specify mandatory inventory dimensions

You can configure certain inventory storage dimensions to be mandatory for a dimension group. When you create a journal or a transaction, you must specify the dimension.

### Create demand and supply plans by using Microsoft Excel

You can use Microsoft Excel for the following sales and operations planning tasks:

- Create sales forecasts for individual sales territories and regions by adjusting the base forecast.

- Create a corporate supply plan, based on the demand plan, by adding constraints to resources and adding capacity.
- Adjust sales forecasts and adjust capacity for supply plans.

The individual Excel sheets are updated with data from the analysis server database, and you can then adjust the plans to balance supply and demand.

#### Activity centers for sales and operation plans

The activity centers allow demand planners, supply planners, and operational planners to work together to create sales and operations plans.

The following activity centers are available:

- An activity center where the IT operations manager administers the planning application, including the time horizon and freeze fence.
- An activity center where the sales managers create demand plans for their markets. It is possible to create and publish various scenarios. The regional sales manager can select the most realistic plan to incorporate in the regional demand plan.
- An activity center where the regional sales managers merge the demand plans for the individual markets into a regional demand plan. It is possible to create and publish various scenarios. The corporate sales manager can select the most realistic plan to incorporate into the corporate demand plan.
- An activity center where the corporate sales manager merges the regional demand plans into a corporate demand plan. It is possible to create various scenarios, but only one plan is published.
- An activity center where the production planner creates a supply plan based on the corporate demand plan. It is possible to create various scenarios and publish each scenario.

#### Arrival overview form added

You can use the Arrival overview form to estimate and plan the resource capacity that is necessary to handle incoming goods efficiently. Registering items when they arrive is easier because much of the required information, such as location and warehouse, is based on the previous setup and is available during the arrival registration process.

## Manufacturing

#### Available-to-promise

The available-to-promise (ATP) functionality provides an alternative to the current delivery date control functionality for sales orders. The ATP calculation includes not only lead times and available dates, but also planned receipts and issues.

#### Improved job scheduling options with the Gantt chart

Planned scheduling changes are not committed until you submit the changes, which allows you to set up and test various schedules. You can change data in the Gantt chart, evaluate whether the changes should be implemented, and then choose either to save the changes to the database or to discard them.

To support the scheduling work, a number of user interface improvements have been implemented, such as the capability to view jobs. The Resource view shows jobs based on work centers, and the Order view shows jobs based on orders.

The general Gantt user interface has been improved with features that include an improved display of time scale, colors, and histograms.

Actual cost breakdown

You can break down actual costs when you evaluate your inventory and your costs.

## Master planning

Improved master planning performance

The following functional changes and changes to the master planning logic improve the accuracy and speed of running the master scheduling calculations and master requirement planning (MRP) performance.

- Bottleneck scheduling - You can designate a work center as a bottleneck, and you can set a bottleneck scheduling time fence to activate finite scheduling for the work center.
- Master planning helper - You can run concurrent processing of master plan calculations.

The following code enhancements also have been added:

- Eliminate unnecessary double scheduling
- Reduce locks when running net change master scheduling
- Reduce code paths
- Master planning tables are optimistic concurrency control (OCC) enabled
- Scheduling date calculations are streamlined
- Master planning performance optimizations

Use multiple versions of prices

You can define, maintain, and calculate multiple versions of prices and cost prices when you do your bill of materials (BOM) calculations.

Bill of materials (BOM) and route version selection

During planning of materials and resources, the automatic selection of the BOM version and the route version also includes the site, when it is specified.

For a BOM version that is not site-specific, you can assign the BOM line consumption to a work center as an alternative to using the issuing warehouse that is stated on the BOM line.

## Multisite

Advanced on-hand form

You can use the Advanced on-hand form for sales activities, such as promising orders. The form provides an overview of item availability and the various sourcing options that can be used to fulfill a customer requirement.

Activate the multisite functionality

After you have set up your site structure, you can activate the multisite functionality using the Multisite Activation Wizard. This results in the following:

- The site dimension becomes active in all inventory dimension groups.
- The site dimension becomes mandatory and must appear on all inventory transactions.

You can implement the multisite functionality on a company basis when you install Microsoft Dynamics AX or upgrade from earlier versions of Axapta or Microsoft Dynamics AX.

#### Different costs and prices on different sites

You can use different planned costs and prices for items and different cost category rates (rate and indirect costs) or ratios across the various sites within the company.

#### Master planning bills of materials (BOM) and route

When you run master planning in a multisite environment, the demand at the end item is exploded (driven down to the component levels) according to the dimensions that have been set up for each item, and for the route that is specified for the site.

#### Time zone and delivery date control per site

You can specify order entry deadlines per site, which takes into account that sites might be located in different time zones.

#### Enhanced XML documents to support multisite and new fallback warehouse

XML documents (Axd documents) have been extended to support the new multisite feature in Microsoft Dynamics AX, and a fallback warehouse has been introduced. A fallback warehouse is specified when a warehouse cannot be determined according to business rules or when the warehouse has not been specified when a sales order is received via intercompany and Enterprise Portal.

To handle cases where site and warehouse is mandatory information, all Axd documents are evaluated to verify if site and warehouse information is included when reading data. In cases where warehouse is not included, the fallback warehouse is used. The fallback warehouse is defined as part of the company information.

If multisite is activated, the site can ultimately be determined via the fallback warehouse. If multisite is not activated but warehouse has been defined as mandatory on the item dimension group, the warehouse is also determined via the fallback warehouse.

#### Sales orders support multisite and site-specific financial dimensions

Sales order default values have been changed to support multisite and to ensure that default financial dimensions can be specific to a site.

#### Enterprise Portal now supports multisite usage

Enterprise Portal functionality used by sales representatives, customers, and vendors has been changed to support the new multisite feature.

#### Multisite and intercompany orders

The total and the multiline discounts are calculated automatically when you create an intercompany purchase order from an original sales order. Previously, the purchase price, discounts, and automatic miscellaneous charges were calculated automatically, but you had to calculate the total and the multiline discounts manually for each order line when a purchase order was created from a sales order.

The total and the multiline discounts are also calculated automatically for the intercompany purchase order when you create the order from an intercompany sales order and the Price & discount search check box is selected for the PurchaseRequisition action in the Intercompany action policy form.

**Note:** Delivery dates in intercompany orders are synchronized the same way as before, that is, in the case of different time zones, these are ignored when you synchronize delivery dates.

Because standard cost prices must be set up individually on individual sites, the standard cost price setup on an item is not copied together with an item when you copy the item to another company.

#### Purchase orders now support multisite and site-specific financial dimensions

Purchase order default values have been changed to support the use of multisite and to ensure that default financial dimensions can be specific to a site.

### Changes in the Create purchase order and Create direct delivery forms

The Create direct delivery and Create purchase order forms have been modified, so now you can select a preferred vendor per site, warehouse, size, color, and configuration. Furthermore, the forms have been changed to support multisite usage and a new Price/Discount tab has been added to view price and discount information.

### Request for quote supports multisite usage

The new request for quote feature has been updated to reflect the new inventory dimension site and to ensure that default financial dimension can be implemented for specific sites.

### Multisite support for product builder

The product builder supports the following configurations:

- Single site
- Multiple sites
- Multisite inactivated

By default, the assignment of site ID on configured bills of materials and routes will originate from the sales order line unless specifically overwritten by product model logic.

### Create and print sales order posting documents per site

You can create posting documents for sales orders as site-specific documents or as documents that represent the company as a whole.

You can create individual picking lists, packing slips, and invoices per site for the sales order lines that will be delivered from the individual sites.

The picking list and the packing slip can be created only for a specific site because they list items that are physically located at the site, whereas invoices can be either site specific or they can cover deliveries from more than one site.

Quotations and confirmations are company-specific documents that you create for the company as a whole, so customers receive only one quotation or confirmation document. Quotations and confirmations cannot be site specific.

After you have created the site-specific documents, they can be directed to a local printer using the extended print management feature.

### Filter production data by site

You can filter production orders and planned production orders by site.

### Specify item settings per site

You can define item master settings that are used when orders are created and generated at the site level.

### Master planning in a multisite environment

Master planning in a multisite environment is supported by the following features:

- As part of the coverage settings for an item, you can specify a vendor for specific coverage dimensions.
- You can define item coverage settings for a subset of inventory dimensions that are set to be master planned by dimension. You can do this manually or using a wizard.
- In certain situations, you can change the default planned order type that is generated during master planning.
- To modify coverage settings, you can access the Item coverage form directly from the Net requirements form.

- The Dimensions tab on the Item coverage form shows all of the active inventory dimensions for the selected record.

#### Improved standard cost

You can activate and use multisite functionality with the standard cost inventory model.

#### Use bill of material (BOM) levels to control production at multiple sites

For multiple sites that share item numbers, you can set up the BOM and the route so that components can be produced at different sites.

## Product builder

#### Product builder rule debugger

The rule debugger is a support tool for the existing test model functionality in Product builder. The purpose of the tool is to improve productivity when building new product models and reviewing existing models.

The rule debugger supports validation of rules, which allows you to efficiently debug the errors in product models and to speed up development of new product models.

## Production

#### Use production units

You can create production units to structure your production resources and data. You assign a production unit at the work center group level.

## Project

#### Integrate costing methods into projects

With the integration of Project and Production, you can integrate both the standard and indirect costing methods into the production projects.

#### Project purchase requisition

You can create a purchase requisition for a project, which allows you to charge the cost of a purchase to the project.

#### Track and control project costs

You can track project costs and efficiency while the project is still in process, which can help you to estimate the total expected cost of the project.

#### Integration to Production

With the integration of the Project to Production, you can now display a production order that is linked to a project. When the actual cost of the product or service is posted in Production, the production cost will add only the WIP value to cost prices, whereas Project will then accrue revenue and WIP value to both cost price and sales price.

#### Export to Excel with Project control

You can export the data in the forms under Project control into Excel.

#### Balance sheet posting of fixed-price and investment projects

You can post costs directly to the balance account on journals instead of only posting the costs to the Profit and loss account.

## Project server integration with Microsoft Office Project 12

With the integration of Microsoft Office Project 12 with Microsoft Dynamics AX Project, you can now create and manage a project that is synchronized between the two systems, based on a shared resource pool. You also can integrate project work for billing and revenue recognition in Microsoft Dynamics AX.

### Monitor cash flow

You can calculate the cash flow of any project at any time. You also can print reports to see an overview of a single project or of multiple projects. The cash flow then can be transferred to General ledger cash flow.

### Calculate employee and hour utilization

You can measure the efficiency and billable rate on hours for employees and projects.

### Export data to Microsoft Excel

You can now export calculated data from the Statistics form to Excel and then calculate the statements from all possible views. This can be done with both actual and budgeted amounts.

### Integration of Project and Production

You can now display a production order that is linked to a project.

When the actual cost of the product or service is posted in Production, the production cost will be added only to the WIP value to cost prices, whereas the accrue revenue and WIP value are accrued in Project to both the cost price and the sales price.

### Price group support

You can create price groups as part of trade agreements to assign to projects, invoice projects, and customers. A trade agreement can apply to a specific project or customer, to multiple projects or customers, or to an invoice project or multiple invoice projects (for Time and Material and Fixed Price). By assigning price groups to projects, invoice projects, or customers, the valid sales prices are available automatically when journal transactions are created for hours, expenses, fees, and subscriptions.

### User-defined stages for projects

You can use project stages as a guide to the project life cycle. As project stages are defined, you can activate tasks and assign them to specific project stages. You also can create additional stages and assign customized labels throughout the project.

## Quality management

### Quality management system

The quality management system allows you to define quality standards and testing procedures for your organization. You can track adherence to the standards that you define and manage defective items, performance of vendors, and complaints from customers.

## Service

### New dispatch board to control service order activities

You can use the dispatch board, which is a graphical overview that lists service order activities, to understand the flow of services, and use your mouse to control the flow of service orders and service order activities.

You can prioritize service orders by urgency, use various types of service activities, and associate each service order with a preferred technician and a preferred date and time.

You can complete the following tasks from the dispatch board:

- Display service orders within a date interval.
- Identify the priority of a service order or distinguish between activity types by using different color schemes.
- View dispatch teams with associated employees.
- Reassign activities using drag-and-drop and update service orders accordingly.
- Reset and undo changes.
- View service orders that have not been dispatched.

#### Integration between Sales and Service

Service agreements and service orders can be created directly from a sales order.

Items that are applied as spare parts in service orders or service agreements now can be identified by unique serial numbers.

You can see what replacements were made within a specific period for a specific item and how the replacements were handled.

You can reserve items in inventory to be applied as spare parts.

#### Service level agreement

Service companies can apply a time limit for when a service request must be completed, the time spent on completing service orders can be recorded, and compliance with the time frame set in the service level agreement can be monitored.

You can enter reasons for exceeding the time limit of a service level agreement and print reports that provide information about assignments of service level agreements and about recorded starting and ending times of service orders.

#### Create and maintain service orders via Web portals

Two service portals are provided. The customer portal allows service customers to create service orders and track the status of their service orders via the Internet. Field technicians can use the technician portal to create or modify service orders, service order lines, repair lines, and to view service agreements, service objects, and service tasks.

Service orders entered on the service portals are displayed in Microsoft Dynamics AX, and the service dispatcher can acknowledge and verify incoming service orders, transfer them to the Service orders form, and assign them to technicians.

## Features for specific countries/regions

Note: Unless otherwise noted, the features for specific countries/regions described below are in the SYS layer of Microsoft Dynamics AX.

Information about features for countries and regions GLS layers will be updated on an on-going basis as it is available.

### Austria

#### Austrian packing materials fee report removed

All Austrian companies have to pay a fee for material used to pack goods sold to an official office named ARA (Alststoff Recycling Austria). In previous versions, amounts were printed directly from Microsoft Dynamics AX into a report with a layout exactly as the official form. However, ARA now provides a PDF document that can be filled out by the user so the report has been removed from Microsoft Dynamics AX.

### Half year depreciation for additional acquisitions

When you post additional acquisitions for an asset, those additional acquisitions need to be depreciated until the main asset has been fully depreciated and must follow the half-year depreciation rule. This feature is available only if the Austria country/region configuration key is selected.

### PAYMUL file format for methods of payment

The existing PAYMUL file format has been updated in accordance with the most recent version from STUZZA, the company that provides standards for Austrian electronic banking.

### VAT changes for Austria

The Austrian VAT statement has been updated to 2008 standards. You must set up new sales tax codes and sales tax reporting codes to separately report purchase tax amounts for buildings and vehicles for the new positions 027 and 028. You might need to update existing sales tax codes for the regions Jungholz and Mittelberg.

## Australia

### Fixed asset low value pool

You can now allocate low-cost and low-value depreciating assets to a low-value pool and depreciate the collective value of the pool, rather than each individual asset. According to Uniform Capital Allowance (UCA) rules, a low-cost asset is one that costs less than AUD 1000 at the end of the fiscal year that you start to use it. A low-value asset is not a low-cost asset, but has an opening net book value of less than AUD 1000 as of July 1 in the year that you allocate it to the pool and for which you have previously taken a deduction using the reducing balance depreciating method.

**Note:** After you select to create a low-value pool and you allocate a low-cost asset to a low-value pool, all low-cost assets that you start to hold in that income year and subsequent income years, must also be allocated to the pool. However, this rule does not apply to low-value assets. You can decide whether to allocate low-value assets to the pool on an asset by asset basis. After you have allocated an asset to the low-value pool, it remains in the pool.

## Belgium

### Belgian annual listing report

You now can create the Belgian annual listing (form 725) report in XML format so that it follows Belgian INTERVAT specifications.

### Payment balance declaration

Some Belgian companies are required to electronically submit payment balance information to the National Bank of Belgium, to comply with regulations for reporting financial transactions between Belgium and other countries. You now can create an XML file that includes the required information and follows the formatting guidelines set by the National Bank of Belgium.

### EU sales listing in XML

You now can generate the EU sales list in XML format, in accordance with the format specified by the Belgian government.

### Electronic support for ISABEL version 6

Microsoft Dynamics AX now integrates with ISABEL electronic banking software version 6 so that you can automatically download or upload important payment files and bank statements to or from a third party.

### Belgian journal reports

The detailed overview of the tax postings section on the Belgian journal reports has a change to the tax split and now contains the following extra information:

- Tax base amounts per goods, services, and investments posting
- A subtotal and total tax base amount per goods, services, and investments is calculated per page

#### New CODA layout for 2007

The CODA layout has been updated for 2007 and includes layout changes, content improvements, and International Bank Account Number (IBAN) and Bank Identifier Code (BIC) integration.

#### Changes to Belgium journal reports

The Financial journal report and the Other's journal report will include a detailed overview section that will print the correct customer and vendor names, as well as additional information for each date and journal line.

#### Belgian VAT reports updates

The following Belgian legal reports have been updated to 2007 standards.

- Monthly/quarterly tax declaration (report 625)
- Quarterly EU sales list (report 723)
- Yearly tax declaration (report 725)

#### Canada

##### U.S. fund transfer added to RBC Payment Distribution Service (CA) export format

You can now transfer funds in U.S. dollars (USD), as well as Canadian dollars (CAD), through the Royal Bank of Canada Payment Distribution Service. Use the RBC Payment Distribution Service (CA) export format for the vendor method of payment and select either CAD or USD currency when you generate payments. This format complies with Royal Bank of Canada Standard 152 Payment Distribution Service (credit file format).

#### Denmark

##### Schematron validation of OIOXML invoices for Danish public authorities

Schematron validation is now performed on invoices when they are posted for public sector customers. This makes it possible for the OIOXML invoices to pass validation by the public authorities without errors and delays, so that you can deliver invoices to the authorities in a timely manner.

#### Finland

##### Intrastat for Finland

You can print the statistical values (excluding excise taxes) for imports and exports on Intrastat reports, when the import and export values exceed the threshold.

##### Sales tax reporting for Finland

You can print a report that displays VAT information, such as the amounts that you should pay or receive for a particular settlement period.

#### France

##### Export financial data for French archiving requirements

You can now export data for financial transactions in the format required by the French government. You can export the transactions to a text file for the purpose of archiving the information or submitting it to the French government.

## French check layout

You can now print checks for French vendors using the French check layout. The check format includes a check letter that lists all the documents that are paid by the check. You also can print checks for general ledger accounts. You might need to do this to pay for bills from one-time vendors.

## Fixed assets derogatory depreciation for France

You can depreciate fixed assets using the derogatory depreciation method. With this method, an extra amount of depreciation is calculated and posted for tax purposes. This feature is available only if the France country/region configuration key is selected.

## Germany

### ELSTER updates

Four additional tax reporting codes replace existing tax codes.

Existing reporting code	New reporting code
51 (Taxable sales 16%)	81 (Taxable sales 19%)
151 (Sales tax payable 16%)	181 (Sales tax payable 19%)
97 (Taxable EU purchase 16%)	89 (Taxable EU purchases 19%)
197 (Sales tax for EU purchases = Use-tax 16%)	189 (Sales tax for EU purchases = Use-tax 19%)

You can verify the new style sheet in the Elektronische Steuererklärung Protokoll form. 200701 will be displayed as the version number.

### Depreciation rate for Reducing balance depreciation method

For a Reducing balance depreciation method, there is a restriction regarding the maximum depreciation rate that is allowed.

### German EU sales list submitted electronically

You can create the quarterly EU sales list in electronic format, which can be submitted to German authorities electronically. In the EU sales list form (Basic > Periodic > Foreign trade > EU sales list), select Output > Print - DE form, select the Generate XML file check box, and then click OK to create an XML file. The file can be uploaded to the Bundeszentralamt für Steuer (BZST) Web site.

### Updated XML version for Germany

The XML file for the Elster functionality has been updated with the new header standards that went into effect in 2008.

## Iceland

### Invoice text on invoice pages for Iceland

The text "This invoice originates from a bookkeeping system which is consistent with the provisions of Regulation no. 598/1999" will be printed at the bottom of all sales and project invoice pages.

### Sales tax reconciliation report

The Sales tax reconciliation report is now available for companies in Iceland.

## Italy

### Customer and vendor list for Italy

You can now export customer and vendor information needed by an auditor to a file in the format that is required by Italian law. Tax authorities use this information to analyze the tax position of each customer and vendor. The customer and vendor list must be submitted by no later than February of

each year and is used by the tax authority to calculate the "own resources" that each Member State must pay to the community budget.

#### Yearly VAT communication

Italian law mandates that each February, every company must send annual tax information regarding value-added tax (VAT) to tax authorities. From within Microsoft Dynamics AX, you can print a report or create an XML file that includes this information.

#### IBAN number validation for Italy

The IBAN number field for vendor bank records can be validated for Italian vendors.

#### Italian fiscal journal

You can use the Terms of payment form to set up terms of payment so that all accounts receivable transactions with a cash on delivery (C.O.D.) payment method are included on the Italian fiscal journal report, which lists all transactions for a fiscal period.

#### Italian sales tax report

Canceled invoices now are included on the Italian Sales tax report, which companies in Italy must generate on a monthly basis to show all invoices for the month, both posted and canceled.

The following features for Italy are available only if the Italy country/region configuration key is selected.

#### Italian sales tax report updates

The Italian sales tax report now contains the following updates:

- The page numbering is continuous for each VAT book that is created.
- The order of the information in VAT book in the report has been updated and the information in the Tax summary section of the report is printed in the correct group.
- Periods with no transactions have a zero amount in the summary for the period.

#### Full manual depreciation and depreciation run date

Assets must be depreciated on a monthly basis and fully depreciated using the Manual depreciation method.

#### Closing entries are printed on Italian fiscal journals

Closing entries are now printed at the end of the Italian fiscal journal.

## Netherlands

#### Export of financial data for XBRL reporting (Netherlands)

Microsoft Dynamics AX allows you to export financial data into an XML file that can be imported into a third-party application. Within the third-party application, the latest Netherlands taxonomy can be imported and matched to the data from Microsoft Dynamics AX to create XBRL instance documents that can be exchanged with other businesses or submitted to government authorities.

#### Translate numbers in Dutch text

Amounts on reports will be printed in Dutch text.

#### eVAT changes for the Netherlands

Validation rules have been changed to allow new European Union (EU) member states, Romania and Bulgaria, to be included in the Intra-Community Deliveries (ICL) declarations. New certificates are supported for submitting declarations to the tax authority. Also, the ability to submit ICL declarations that are registered as part of a fiscal group to the tax authority has been added.

## Spain

### 347 Declaration updates for Spain

Previously, the three-character country/region code on this report was completed with zeros. Now it is completed with blanks.

### Transfer customer and sales tax group information to invoices

You can now automatically transfer fiscal data—including customer name, tax exemption number, and sales tax group—to a sales invoice, free text invoice, or project invoice when invoicing. This helps to streamline the invoicing process and reduces the chance for errors caused by reentering information. This feature is available only if the Spain country/region configuration key is selected.

## Sweden

### Support for Bankgiro Receivables (BG Max) import files

You can now import BG Max payment files into Accounts receivable payment journals. This is the format required to support Bankgiro Inbetalningar (Bankgiro Receivables), which is available from BankGiroCentralen, a payment provider in Sweden. The following versions of the BG Max payment files are supported:

- Basic/standard
- Extended with OCR control of check number
- Extended with OCR control of check number and length
- Extended with OCR extended form registration control

## Switzerland

### Revised payment advice report for LSV+

The payment advice report for Swiss LSV+ payments now shows all invoices for a customer on the same report, instead of printing a separate report for each invoice. A single payment advice report is printed for each customer, for each bank that is used by the customer.

The following features for Sweden are available only if the Sweden country/region configuration key is selected.

### Swedish sales tax report updates

In accordance with the Swedish external tax reporting codes that were introduced by the Swedish Tax Authorities in January 2007, the Swedish Sales Tax Report has been updated to calculate a net VAT total amount. VAT settlement date ranges are displayed on the report, also.

### View vendor payments (Sweden)

The number of payments that are approved and the total amount of all the payments that are approved is displayed in the Payment transfer form.

## Thailand

### Unrealized VAT posting accounts for Thailand

You now can post unrealized VAT amounts to the Unrealized VAT receivable account or to the unrealized VAT payable account in the general ledger.

## Turkey

Note: The functionality and features for Turkey are in a GLS layer and are available when you initially install Microsoft Dynamics AX 2009.

Information about features for countries and regions in other GLS layers will be added on an on-going basis as they become available.

### Post net income

You can select the level of details by dimensions for balance sheet transactions.

### Base invoices on packing slips

You can print or post sales order and purchase order invoices that are based on individual packing slips or for a group of selected packing slips.

### Print a dimension statement and adjust inflation

Inflation accounting eliminates the adverse effects of inflation. When you print the Dimension statement report, you can select to include inflation adjustment transactions.

### Reverse fixed assets transactions

You can now set the correct date of the last inflation accounting run if the related transaction is reversed or if the reversal is revoked.

### Purchase type and purchase requisition workflow

The purchase type feature from previous releases has been removed. To define and activate a spending limit for an employee, select the Active check box, according to the standard Purchase requisition workflow functionality.

### YTL conversion is removed

The old Turkish YTL conversion has been removed.

### Print a Balance List by currency report

The Balance list by currency report is a version of the standard Balance list report, and information is classified by specific currency codes. The report includes five different currency code selections. You can select to print the report for realized amounts in original the currency, or for the currencies selected in the currency selections.

### Demand confirmation is no longer available

The demand confirmation feature for purchase orders has been removed.

### Revalue fixed assets after the useful life is finished

The related law in Turkey allows companies to decide whether an asset will be revalued, even after its useful life is finished.

### Pro-rata based depreciation of fixed assets for Turkey

You can choose between the pro-rata and not pro-rata types of depreciation on the value model attached to the asset.

### Rounding of fixed asset depreciation for Turkey

The calculated corrections are posted to the last fiscal period—or are spread over the fiscal year if a correction amount is significant. This is an automatic process.

## United Kingdom

UK BACS export file supports larger payment amounts

You can now include payments as large as GBP 999,999,999.99 in a Bankers Automated Clearing Services (BACS) export file.

## United States

Process 1099-S United States tax statements

You can now process the United States 1099-S (Proceeds from real estate transactions) tax statements in Microsoft Dynamics AX. In previous releases, the only 1099 forms you could process were the 1099-MISC, 1099-DIV, and 1099-INT tax statements.

U.S. 1099 changes for 2006

As of January 1, 2007, Box 8, Tax-exempt interest, and Box 9, Specified private activity bond interest, were added to form 1099-INT. Changes also were made to the magnetic media file.

U.S. ZIP/postal code +4

You now can enter the nine-digit postal code, called the ZIP+4, for addresses in the United States. The code will be validated, and if the nine-digit code does not exist, but the five-digit code is used, the code is accepted and the nine-digit code is added automatically to the list of valid postal codes. The postal code must pass one of the following format validations:

- Length equals five numeric characters
- Length equals ten characters, of which the first five characters are numeric, the last four characters are numeric, and the character in the sixth position is a dash
- Length equals nine numeric characters and no dash

Note: To use this feature, you must select the Use Zip + 4 postal code validation rules check box in the Country/region form.

---

Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like and with familiar Microsoft software, automating and streamlining financial, customer relationship and supply chain processes in a way that helps you drive business success.

U.S. and Canada Toll Free 1-888-477-7989

Worldwide +1-701-281-6500

[www.microsoft.com/dynamics](http://www.microsoft.com/dynamics)

The information contained in this document represents the current view of Microsoft Corporation on the issues discussed as of the date of publication. Because Microsoft must respond to changing market conditions, this document should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information presented after the date of publication.

This White Paper is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, AS TO THE INFORMATION IN THIS DOCUMENT.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Microsoft Corporation.

Microsoft may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

© 2009 Microsoft Corporation. All rights reserved.

Microsoft, Excel, Microsoft Dynamics, the Microsoft Dynamics Logo, PowerPoint, SharePoint, SQL Server, Visio, Visual Studio, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.