

Microsoft Dynamics® AX

Integrating Microsoft Dynamics AX 2009 with Microsoft Office Project Server 2007

White Paper

This white paper describes how to integrate Microsoft Dynamics® AX 2009 and Microsoft® Office Project Server 2007 so that you can use the features of both programs to manager your projects.

Date: 1/4/2010



Table of Contents

Introduction.....	3
About this document	3
Overview of data flow.....	3
Compound and simple entities.....	4
Synchronization modes.....	5
Entities and synchronization.....	6
Setting up the integration (System Administrator)	6
Prerequisites	7
Software.....	7
Security requirements and roles in Office Project Server	7
Synchronization service account	7
Install the Office Project Server synchronization service.....	7
Install the Office Project Server synchronization proxy	8
Configure Microsoft Dynamics AX synchronization service parameters	9
Enable the integration	9
Integrating project data (Project Manager)	10
Integrate an employee record that was created in Microsoft Dynamics AX.....	10
Verify the employee record in Office Project Server	10
Integrate a project that was created in Dynamics AX.....	10
Verify the project in Office Project Server	11
Verify the project in Microsoft Office Project Professional 2007	11
Integrate a project that was created in Office Project Server	11
Verify the project in Dynamics AX.....	11
Integrate a project's build team resources that were created in Office Project Server	12
Viewing synchronization results and refreshing data (Project Manager) ..	12
Refresh data from or to Office Project Server	13
Refresh data to Office Project Server.....	13
Refresh data from Office Project Server	13
Appendix A: Dynamics AX forms used in integration setup	13
Appendix B: Field mapping between Office Project Server and Dynamics AX	13
Appendix C: Troubleshooting	14
Issues with Office Project Server and MSMQ.....	14
Components are not deployed successfully when MSMQ is installed on a computer running on Windows Server 2008 and the AOS is not installed on the same computer	15
When synchronizing actuals hours from Dynamics AX to Office Project Server, all hours are assigned to a single date regardless of the dates they were assigned to in AX	15
Synchronization proxy setup may fail to install all the event handlers in Office Project Server	15

Introduction

By integrating the Microsoft Dynamics AX 2009 Project accounting module with Microsoft Office Project Server 2007, you can draw on features of both products for more granular control of the projects that your company manages. For example, you might want to use the complex resource scheduling capabilities of Office Project Server for a project that you are managing in Dynamics AX. When you integrate the two programs, data changes in one program can be transferred to the other, so that all of your project records are current and synchronized in both programs.

About this document

Use this document to help you set up integration between Microsoft Office Project Server and the Microsoft Dynamics AX Project accounting module. This document assumes that a system administrator in your organization will set up integration between the two programs and that a project manager will integrate specific projects. Accordingly, some sections in this document are marked either “System Administrator” or “Project Manager,” depending on the tasks that the section contains.

Overview of data flow

By using the flexible task hierarchy in Office Project Server, you can create a hierarchical structure that is similar to the hierarchical structure in Dynamics AX. Corresponding hierarchies make it possible for information about projects, subprojects, and activities to flow between the two programs. As part of the synchronization process, actuals for labor, expenses, and revenue that are posted in Dynamics AX are transferred to Office Project Server, and any changes to project or activity information in Office Project Server are transferred to the Dynamics AX database.

The following illustration shows the areas of integration and the data flow between Office Project Server and Dynamics AX.

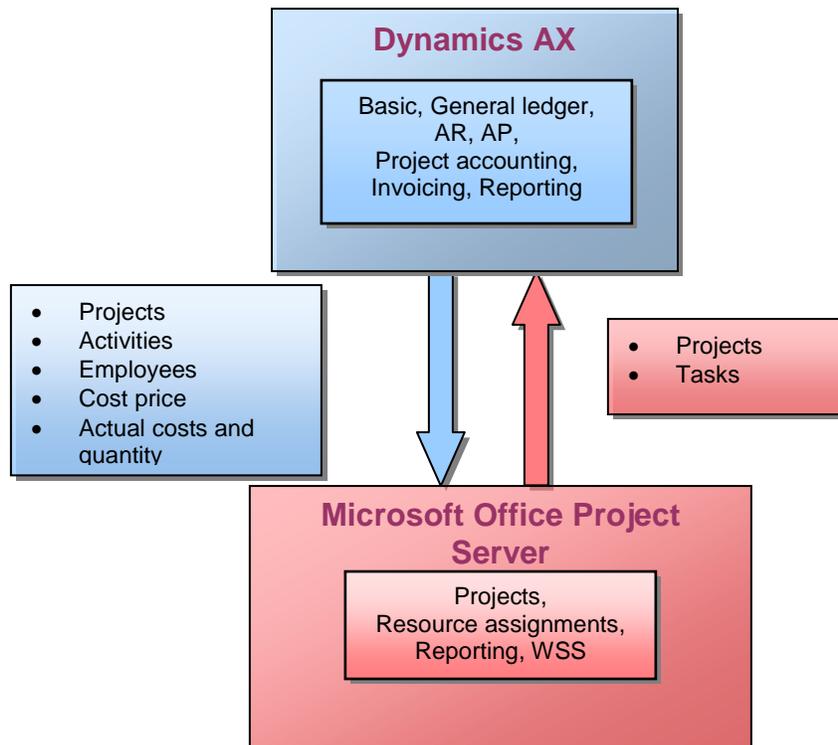


Figure 1: Data flow between Dynamics AX and Office Project Server

A synchronization service component and a synchronization proxy component are used to transfer data between Dynamics AX and Office Project Server. Both the service and the proxy must be installed for successful integration. A system administrator installs these components by using Dynamics AX Setup. The Office Project Server synchronization service synchronizes project data in Dynamics AX with data in Office Project Server. When you install the synchronization service, Setup configures Microsoft Message Queuing (MSMQ) to include a queue for the service.

For more information, see “Setting up the integration (System Administrator)” later in this paper.

For detailed information about synchronization service and synchronization proxy architecture, see the Microsoft TechNet article, “[Synchronization service and synchronization proxy architecture](http://technet.microsoft.com/en-us/library/dd309600.aspx)” at <http://technet.microsoft.com/en-us/library/dd309600.aspx>.

Compound and simple entities

The synchronization service uses the concepts of compound entities and simple entities to synchronize data between Dynamics AX and Office Project Server. A compound entity in Dynamics AX consists of one or more simple entities.

For example, a compound entity of “Project” might have several simple entities associated with it, including a project header, task, assignment, and project team, as shown in the following illustration.

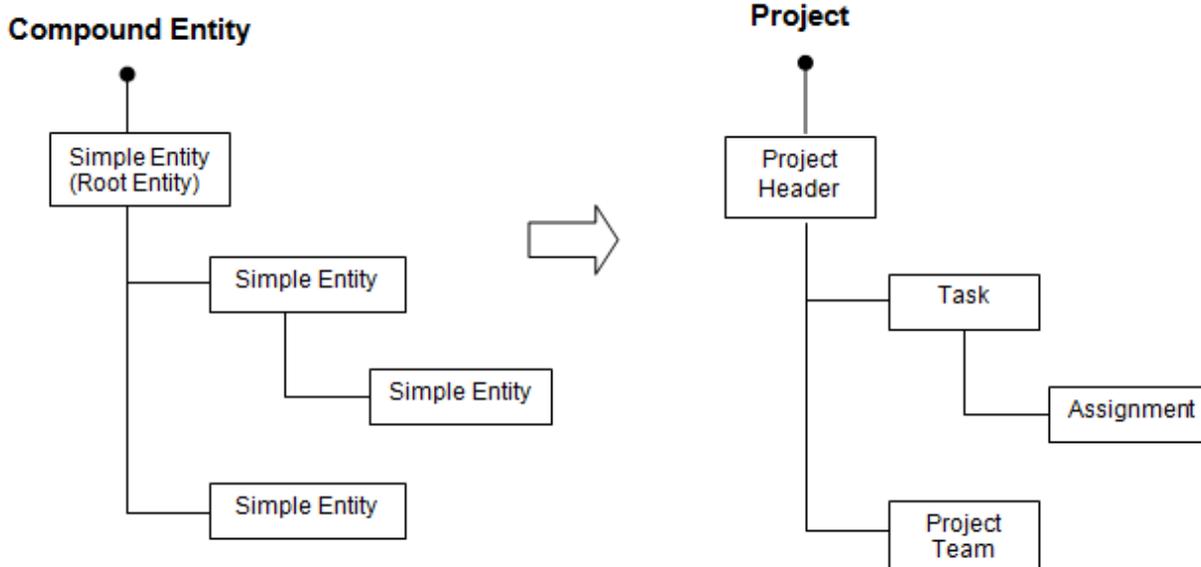


Figure 2: Compound entity

During the synchronization process, simple entities are synchronized one at a time.

Synchronization modes

The synchronization service supports two modes: *one-way synchronization* and *two-way synchronization*:

- In one-way synchronization, only one master application exists for a particular compound entity. Only the master application can create, update, delete, and unlink compound entities and their simple entities. The master application publishes the data and the other application subscribes to the data.
- In two-way synchronization, a compound entity has two sources: Dynamics AX and Office Project Server. Both applications can create, update, delete, and unlink compound entities and their simple entities.

Although simple entities are synchronized, the synchronization modes apply to compound entities.

Note: If changes to a simple entity occur simultaneously in both systems, and the compound entity is configured for two-way synchronization, the change that occurs in the application that is designated as the master takes precedence.

You can configure the synchronization mode for each compound entity by using the **SyncCompoundType** table in Dynamics AX. Each compound entity has a sync mode setting, and every simple entity inherits the sync mode setting of its parent.

The following table lists the entities that can be synchronized between the two programs, the synchronization mode available for each entity, and the application that is designated as the master.

Simple entity	Compound entity	Synchronization mode	Master application
Project header	Project	Two-way	Dynamics AX
Hierarchy node	Project	Two-way	Dynamics AX
Activity	Project	Two-way	Dynamics AX
Project resource	Project	Two-way	Office Project Server
Employee	Employee	One-way	Dynamics AX

Table 1: Simple entities that can be synchronized between Dynamics AX and Office Project Server

Entities and synchronization

When a user performs an action on an entity, such as creating or updating a record, a message is sent to the synchronization service:

- If the action is performed in Office Project Server, the message is sent through the synchronization proxy that is installed on the computer that is running Office Project Server.
- If the action is performed in Dynamics AX, the message is sent through the Microsoft Message Queuing (MSMQ) database that the synchronization service uses.

The synchronization process handles entity transactions based on the action being performed, as described in the following table

Action	Description
Create	Triggered when the project manager creates or updates a compound entity in either Dynamics AX or Office Project Server and integrates that entity.
Update	Triggered when the project manager updates an integrated compound entity in either Dynamics AX or Office Project Server.
Delete	Triggered when the project manager deletes an integrated compound entity in either Dynamics AX or Office Project Server.
Unlink	Triggered when the project manager deletes an integrated compound entity in Office Project Server or unlinks an integrated compound entity in Dynamics AX.
Refresh	Triggered when the project manager manually resynchronizes data between the two applications by using the Integration tab of the Projects form in Dynamics AX. Manually resynchronizing data may be necessary if synchronization fails. For more information, see "Refresh data from or to Office Project Server" later in this paper.

Table 2: Actions that prompt synchronization between Dynamics AX and Office Project Server

Setting up the integration (System Administrator)

Setting up integration between Dynamics AX and Microsoft Office Project Server consists of the following tasks:

1. Install the Office Project Server synchronization service.
2. Install the Office Project Server synchronization proxy.
3. Set parameters for the synchronization service.
4. Enable the integration.

When planning your synchronization service and synchronization proxy topology, you must consider scalability, availability, the size of your deployment, and other issues.

For details on these and other considerations, see the Microsoft TechNet article “[Synchronization service and synchronization proxy topology](http://technet.microsoft.com/en-us/library/dd309715.aspx)” at <http://technet.microsoft.com/en-us/library/dd309715.aspx>.

Prerequisites

The following software and security prerequisites must be met before you integrate the two programs.

Software

The following software must be installed:

- Office Project Server 2007 with Service Pack 1 (SP 1)
- The base components of Dynamics AX 2009 (application files, AOS, and database)
- The Dynamics AX Project accounting module
- Windows Message Queuing (MSMQ)
- Windows SharePoint Services 3.0 SP 1
- Office Project Professional SP 1

Security requirements and roles in Office Project Server

Office Project Server has the following security requirements:

- The Microsoft Windows account that is used to run the synchronization service must be a member of the Admin group in Office Project Server and must have the role of **dbowner** for the Office Project Server reporting database.
- The Microsoft Windows account that is used to run the Office Project Server eventing service must have the role of **dbowner** for the Office Project Server reporting database.

Synchronization service account

Before installing the synchronization service, you must specify a synchronization service account.

1. In Dynamics AX, click **Administration > Setup > Security > System service accounts**.
2. In the **Synchronization service account** area, click the second option button, and then select **Admin** from the associated list.
3. Click **OK**.

Install the Office Project Server synchronization service

If you are using Windows Server 2003 and MSMQ has not yet been installed, Setup will install it on the local computer. If you are using Windows Server 2008, you must manually install MSMQ by using Windows Server Manager.

If the .NET Business Connector has not been installed, Setup will install it. If the .NET Business Connector proxy account has not been set up, Setup will prompt you to specify its credentials.

Note: If you are installing other Dynamics AX components at the same time, the installation screens may vary depending on the components being installed.

1. Start Dynamics AX Setup, and then click **Next** to navigate through the initial wizard pages.

2. On the **Select installation type** page, select **Custom installation**, and then click **Next**.
3. On the **Select components** page, select **Synchronization service (Project Server 2007)**.

Note: If MSMQ is not installed, the wizard will prompt you to install it. You may be prompted to install other prerequisite software. After completing these installations, click **Next**.

4. On the **Synchronization service: Select the installation type** page, select the type of synchronization support to install, and click **Next**:
 - For most installations, select **Synchronization services and Message queuing (standard)** to install the synchronization services and message queuing on the same computer.
 - Select **Message queuing only** or **Synchronization services only** when you are installing a distributed system with message queuing on one computer and the synchronization service on another.
5. On the **Synchronization service: Enter the password for the service account** page, enter the password for the synchronization service account that you previously set up, and then click **Next**.
6. On the **Specify the service accounts for synchronization message queues** page, enter the names of the service accounts that will communicate through message queues.

Note: For Setup to configure the proper permissions, you must provide a domain account that will be used by the Office Project Server eventing service, as well as the service account of at least one AOS instance.

7. Click **Next**, and then **click Install**.

Note: During installation, you might receive a message that says, "Access to Message Queuing system is denied". This message either indicates that message queuing is already installed, or it can indicate that the account you are using does not have correct permissions to install queues. For more information, see "Issues with Office Project Server and MSMQ" in "Troubleshooting," later in this document.

Install the Office Project Server synchronization proxy

The synchronization proxy must be installed on the same computer as the Project Server Interface (PSI) Web service. You must be a member of the **dbowner** database role for the Office Project Server database and an administrator on the computer running Office Project Server.

Note: If you are installing other Dynamics AX components at the same time, the installation screens may vary depending on the components being installed.

1. Start Dynamics AX Setup, and then click **Next** to navigate through the initial wizard pages.
2. On the **Select installation type** page, click **Custom installation**, and then click **Next**.
3. On the **Select components** page, select **Synchronization proxy (Project Server 2007)**.
4. If you are prompted for a domain user account on the **Synchronization proxy/Message Queuing: Enter the service account information** page, enter the domain user account that was set for the synchronization service in the Dynamics AX initialization checklist.

5. If you are prompted for a computer name on the **Synchronization proxy: Connect to the synchronization service** page, enter the name of the computer on which the synchronization service is installed.

Note: If the message queue for the synchronization service is running on a different computer than the synchronization service, enter the name of the server running MSMQ.

6. On the **Synchronization proxy: Connect to Office Project Server** page, enter the server name and database name that Office Project Server uses for reporting. In the **Project web access URL** box, enter the appropriate URL.

Note: If the synchronization proxy must connect to multiple project URLs, install the synchronization proxy using the first URL, uninstall the synchronization proxy, and then install the synchronization proxy again using a different URL. Uninstalling the proxy does not prevent the proxy from connecting to URLs that were specified during previous installations.

7. Click **Next**, and then click **Install**.

Configure Microsoft Dynamics AX synchronization service parameters

Use the **Synchronization service parameters** form to set the parameters that you want to use for the synchronization service, such as the MSMQ server name, the synchronization queue name, and other options.

- To open the **Synchronization service parameters** form, click **Basic > Setup > Synchronization service > Parameters**.

For more information about synchronization service parameters, see Dynamics AX Help.

Enable the integration

To complete the integration, lookup values from Dynamics AX must be duplicated in Office Project Server.

1. In Dynamics AX, click **Project > Setup > Parameters**.
2. On the **Number sequences** tab, right-click the **Number sequence code** field in the **Project** row, and then select Go to the Main Table Form.
3. On the **Number sequences** form, click the **General** tab, clear the **Manual** check box, and then click **Save**.
4. Click **Project > Setup > Microsoft Project Server Integration > Configure integration**, and then complete the following fields:
 - **Application ID:** The application identification for Office Project Server.
 - **Project web access site:** The URL for Office Project Web Access.
 - **Reporting database server:** The name of the SQL Server instance in which the reporting database is located.
 - **Reporting database name:** The name of the reporting database.

Note: To view the name of the reporting database in Windows Server, click **Start > All Programs > Microsoft Office Server > SharePoint 3.0 Central Administration**; go to **SharedServices1 > Project Web Access Sites**; position the cursor over <http://<ComputerName>/pwa>, and then select **View** in the list.

5. Click **Save**.

6. Click **Install components**, and then click **Refresh status**.
7. After the installation is complete, select the **Enable integration** check box, and then click **Save**.

Integrating project data (Project Manager)

After the synchronization service and synchronization proxy are installed, the project manager can integrate projects and employees between Dynamics AX and Office Project Server. After you integrate an entity, it is good practice to verify that the entity appears correctly in the other program.

Integrate an employee record that was created in Microsoft Dynamics AX

Before you integrate an employee record, ensure that employee and project details will be written to journals.

1. In Dynamics AX, click **Project > Setup > Parameters**.
2. Click the **Journals** tab, and then in the **Project/employee** list, select **Mandatory**.

After completing this step, you can integrate the employee record and verify it in Office Project Server.

1. In Microsoft Dynamics AX, click **Basic > Common Forms > Employee Details**.
2. Create a new employee record or select an existing employee.
3. Click the **Integration** tab, and then select the **Integrate to Project Server** check box.
4. Click **Save**.

Verify the employee record in Office Project Server

1. On the Office Project Web Access Web site (<http://<ComputerName>/PWA>), on the **Resources** menu, click **Resource Center**.
2. Verify that the employee appears in the **Resource Center** list.
3. Select the check box next to the employee's name, and then click **Edit Details** to open the **Edit Resource** page.
4. Scroll to the **Custom Fields** area and confirm that **Yes** is selected in the **DAX_Resource_01_IntegrateResource** list, and that the **DAX_Resource_02_Company** field is populated.

Integrate a project that was created in Dynamics AX

1. In Dynamics AX, click **Project > Common Forms > Project Details**.
2. Create a new project or select an existing project.
3. Click the **General** tab.
4. In the **Project manager** list, select an employee record that has been integrated with Office Project Server, and then click **Activities**.
5. In the **Hierarchy** form, create a hierarchical activity tree, including a category.

Tip: Right-click the root node, and then select **Create level** to create and name an activity level. Right-click any levels you create and select **Create activity** to configure each activity.

6. Close the **Hierarchy** form.
7. Click the **Integration** tab, and then select the **Integrate to Project Server** check box.

Verify the project in Office Project Server

1. Open Office Project Web Access (<http://<ComputerName>/PWA>), and on the **Projects** menu, click **Project Center**.
2. Verify that the name of the project that you integrated appears in the **Project Center** list.
3. Click the project name to open the **Project Details** page and verify that the tasks are integrated.
4. Select the project name, and then click **Edit Project Properties**.
5. Scroll to the **Project Custom Fields** area and confirm that **Yes** is selected in the **DAX_Resource_01_IntegrateProject** list, and that the other custom fields are populated.
6. Click **Back** to return to the **Project Center** page.
7. Click **Build Team**, and then verify that resources are assigned to the project.

Verify the project in Microsoft Office Project Professional 2007

1. Open Office Project Professional.
2. Select **File > Open** to retrieve the list of all projects from Office Project Server, and then select the project.
3. Verify that the task name and start and finish dates match those you specified when you integrated the project.

Integrate a project that was created in Office Project Server

1. Open Office Project Web Access (<http://<ComputerName>/PWA>), and on the **Projects** menu, click **Project Center**.
 - To integrate an existing project:
 1. Select the project, and then click **Edit Project Properties**.
 2. In the **DAX_Project_01_IntegrateProject** list, select **Yes**, and then complete the remainder of the **Project Custom Fields** area.
 3. Click **Save and Publish**.
 - To integrate a new project:
 1. Click **New > Project** to open Office Project Professional.
 2. Create one or more tasks.
 3. Open **Project > Task** information, click the **Custom fields** tab, enter a description, and then click **OK**.
 4. Click **File > Save**.
 5. Enter a name, complete the remainder of the project custom fields, and then click **Save**.
 6. Click **File > Publish**, and then click **Publish**.

Verify the project in Dynamics AX

1. In Dynamics AX, click **Project > Common Forms > Project Details**.
2. Click the **Overview** tab, and then verify that the project you selected for integration in Office Project Professional is listed.
3. Review the project details and confirm that the expected values appear.
4. Click **Activities** to open the **Hierarchy** form, and then verify that the expected values for **Purpose**, **Start date/time**, and **End date/time** appear.

5. Close the **Hierarchy** form.
6. In the **Projects** form, click the **Integration** tab and verify that the **Integrate to Project Server** check box is selected.

Integrate a project's build team resources that were created in Office Project Server

Assign a project resource in Office Project Server.

After a project has been selected for integration in Dynamics AX, follow these steps to add build team resources.

1. Open Project Web Access (<http://<ComputerName>/PWA>), and then on the **Projects** menu, click **Project Center**.
2. Verify that the project is listed on the **Project Center** page.
3. Select the project, and then click **Build team**.
4. On the **Build Team** page, add resources to the project.
5. Click **Save**.

Verify the project resource in Dynamics AX

1. In Dynamics AX, click **Project > Common Forms > Project Details**.
2. Select the project, and then click **Setup > Employees to open the Validation – project/employee** form.
3. Click the **Employees** tab, and then verify that the employees that you selected are listed in the **Selected employees** pane.

Viewing synchronization results and refreshing data (Project Manager)

Follow this procedure to manage and view the status of integrated projects and to troubleshoot integration errors that may have occurred.

1. In Dynamics AX, click **Basic > Inquiries > Synchronization service > Queue manager**.
2. In the **Show compound entity type** filter, select **Employee, Project, or All**.
3. Select the line of the simple entity that you want to review.
4. In the lower half of the form, use the **Transaction status** filter to view synchronization transactions according to their status:
 - Waiting
 - Executing
 - Completed
 - Failed
 - Cancelled

Tip: If an entity has failed to synchronize, click **Actions > Resynchronize** to try the synchronization process again, or click **Error log** to see the reason for the error.

5. (Optional) Click **Transaction data** to review synchronization process results.

Refresh data from or to Office Project Server

If the synchronization process fails or runs with errors, you can refresh the data, using the current state of the project in either Dynamics AX or Office Project Server as the starting point.

Refresh data to Office Project Server

1. In Dynamics AX, click **Project > Common Forms > Project Details**.
2. Select the project, and then click the **Integration** tab.
3. Click **Refresh > Refresh to Microsoft Project Server**.
4. Open Office Project Web Access (<http://<ComputerName/PWA>>), and on the **Projects** menu, click **Project Center**.
5. Verify that custom fields for the project tasks are updated and synchronized with Dynamics AX.

Refresh data from Office Project Server

1. In Dynamics AX, click **Project > Common Forms > Project Details**.
2. Select the project, and then click the **Integration** tab.
3. Click **Refresh > Refresh from Microsoft Project Server**.
4. Note that project hierarchical activities or integrated project fields are updated and now synchronized with Office Project Server.

Appendix A: Dynamics AX forms used in integration setup

The Dynamics AX forms listed in the following table are used in the integration process with Office Project Server.

Form	Navigation path
Employee	Basic > Common Forms > Employee Details
Enable Microsoft Project Server Integration	Project > Setup > Microsoft Project Server Integration > Configure integration
Project server integration settings	Project > Setup > Microsoft Project Server Integration > Global settings
Projects	Project > Common Forms > Project Details
Synchronization service parameters	Basic > Setup > Synchronization service > Parameters
Synchronization service queue manager	Basic > Inquiries > Synchronization service > Queue manager

Appendix B: Field mapping between Office Project Server and Dynamics AX

Office Project Server	Dynamics AX
Enterprise project custom field	Company account
Enterprise project custom field	Company name
Enterprise project custom field	Project/sub project name
Enterprise project custom field	Project manager

Enterprise project custom field	Header project
Enterprise project custom field	Format
Enterprise project custom field	Customer account
Enterprise project custom field	Customer name
Enterprise project custom field	Project group
Enterprise project custom field	Project type
Enterprise project custom field	Project contract
Proj_info_start_date	Start date
Proj_info_finish_date	End date
Enterprise project custom field	Project stage
Task name	Activity name
Enterprise task custom field	Activity sequence number
Enterprise task custom field	Activity description
Enterprise task custom field	Activity category
Task_act_start	Appointment start date
Task_act_finish	Appointment end date
Task_act_start	Task start date
Task_act_finish	Task due date
Actual_Work	Actual hour quantity
Enterprise task custom field	Actual hour cost
Enterprise task custom field	Actual expense cost
Enterprise task custom field	Actual revenue cost
Enterprise resource custom field	Employee
Resource name	Employee name
Enterprise resource custom field	Cost price
Enterprise resource custom field	Utilization rate
Enterprise project custom field	Company account

Appendix C: Troubleshooting

Issues with Office Project Server and MSMQ

During installation of the synchronization service, the process can fail with the error message, “Access to Message Queuing system is denied” if the user account through which MSMQ and the synchronization service are being installed has not been added to the list of users who have permissions to create queues.

To avoid this situation, ensure that MSMQ and the synchronization service are installed using an account that has permission to create queues.

To provide a user account with permissions to create queues:

1. Open the Computer Management console tree: Click **Start > Administrative Tools > Computer Management**.
2. In the console tree, open **Services and Applications**.
3. Right-click **Message Queuing**, and then select **Properties**.
4. Select the **Security** tab, and then click **Add**.
5. Use the **Select Users, Computer, or Groups** dialog box to select the user account for which you want to assign permissions, and then click **OK**.
6. Click **OK** to close the **Message Queuing Properties** dialog box.

Components are not deployed successfully when MSMQ is installed on a computer running on Windows Server 2008 and the AOS is not installed on the same computer

If you install components to integrate with Office Project Server on a computer running Microsoft Windows Server 2008, the deployment will fail. This happens if both MSMQ and the synchronization service are installed on the computer without the AOS. To work around this issue, install the AOS on the same computer as MSMQ and the synchronization service. Because of this issue, multiple Office Project Server installations cannot be supported if MSMQ and synchronization service are running on Windows Server 2008.

When synchronizing actuals hours from Dynamics AX to Office Project Server, all hours are assigned to a single date regardless of the dates they were assigned to in AX

The Dynamics AX and Office Project Server integration system is designed to publish date information from Office Project Server to Dynamics AX, but not from Dynamics AX to Office Project Server, because Office Project Server is expected to be the primary scheduling tool. Therefore, publishing date information from Dynamics AX to Office Project Server is not supported. Dynamics AX does not perform a validation check on the number of hours posted against a budget. A Dynamics AX to Office Project Server synchronization publishes only the total number of hours for each task.

To avoid losing date information during the synchronization process, use Office Project Server as your primary scheduling tool.

Synchronization proxy setup may fail to install all the event handlers in Office Project Server

Some of the event handlers may fail to be installed along with the synchronization proxy. (These event handlers package entity transactions in a message and send the message to the synchronization service.)

If synchronization proxy setup fails, run the synchronization proxy setup again. If the event handlers are still not installed automatically, you must add them manually by using Office Project Web Access. Go to **Server Settings > Server Event Handlers** to add the event handlers.

These event handlers include the following:

- **ProjectCreated**
- **ProjectChanged**
- **ProjectDeleted**

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

This document is provided "as-is." Information and views expressed in this document, including URL and other Internet Web site references, may change without notice. You bear the risk of using it.

Some examples depicted herein are provided for illustration only and are fictitious. No real association or connection is intended or should be inferred.

This document does not provide you with any legal rights to any intellectual property in any Microsoft product. You may copy and use this document for your internal, reference purposes. You may modify this document for your internal, reference purposes.

© 2009 Microsoft Corporation. All rights reserved.