

Microsoft Dynamics AX

Payroll for Microsoft Dynamics AX Integration with Project

White Paper

Date: June 2007



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Introduction

This information includes an overview of the integration between Payroll for Microsoft Dynamics™ AX and Project, setup instructions, and procedural information to help you use this integration in your organization.

Refer here for installation instructions and feature information:

- [About the Payroll integration with Project](#)
- [Setup instructions](#)
- [Procedures](#)

About the Payroll integration to Project

You can configure Payroll to transmit the actual labor and benefit costs associated with your projects to Project expense journals. To use this functionality, you need to consider:

- [Time and earnings data entry](#)
- [Payroll expense data transmitted to Project](#)

Time and earnings data entry

Payroll expenses are derived from earnings and, indirectly, from time entries. The integration between Payroll and Project uses project and category entries to derive the payroll expenses that it transmits to Project. There are three ways to enter time and earnings and their projects and categories into Payroll.

- You can enter time and earnings manually or generate them automatically in Payroll with the create-time-from-rotation process, time-to-earnings process, or earnings generation process. To select the project and category for a time or earnings entry, you must open each individual journal entry. Projects and categories cannot be specified in the **Quick Entry** form for time. When you run the time-to-earnings process, each new earnings record will have the same project and category as the time record that it was created from.
- You can import time and earnings data from another data source outside of Microsoft Dynamics AX.
- You can enter time and earnings in Project, and automatically create corresponding entries in Payroll, including their project and category. They are committed and approved.

Note:

To set this up, you must write custom code to use the Payroll Import application programming interface (API) to import Project data into Payroll.

If you take this approach, Project will have the time and earning entries that you created there (accrual entries), as well as the corresponding actual earnings plus benefit expense entries transmitted from Payroll, at the end of each pay period. You can configure Payroll to post reversing entries for the accrual time and earning entries in your Project journals when it posts the corresponding actual expenses to Project.

For specific instructions about using the API to transmit time and earnings data from Project to Payroll, see the **Microsoft Dynamics AX Payroll Import Application Programming Interface White Paper** on CustomerSource and PartnerSource.

Payroll expense data transmitted to Project

The payroll expenses that appear in Project are the total of earnings plus benefit costs.

Note:

This release of the integration does not include any options to exclude some types of pay or to exclude benefits costs or to record them independently.

Each payroll expense journal entry in Project includes the expenses for one employee for one project, in one category, and in one pay group, for either one day or the entire pay period. An employee who works on only one project in one category will have one entry in the journal. An employee who works on multiple projects or in multiple categories will have multiple entries. This gives you flexibility in summarizing and reporting costs. An employee whose earnings entries for a pay period have no project or category associated with them will have no payroll costs sent to Project.

When an employee has multiple entries within a pay period, the benefit costs for that pay period are divided among those entries in proportion to the earnings of each entry. For example, in the table below, the earnings for the first entry are 10 percent of the total earnings. Therefore, that entry also includes 10 percent of the employee's benefits costs for that pay period. The share of benefits costs that is added to earnings is calculated by the following formula:

$$\text{Line benefits costs} = \frac{\text{Line earnings}}{\text{Total earnings}} \times \text{Total benefits costs}$$

Project	Category	Earnings	Benefits costs	Total Earnings + Benefits costs
Project 1	Category 1	\$100	100 / 1000 * 500 = \$50	\$150
Project 1	Category 2	\$200	200 / 1000 * 500 = \$100	\$300
Project 2	Category 1	\$300	300 / 1000 * 500 = \$150	\$450
<none specified>	<none specified>	\$400	400 / 1000 * 500 = \$200	\$600
Total for pay period (not sent to Project)		\$1,000	\$500	\$1,500

Sometimes an earnings record in Payroll will not specify a project or category, for example, for time spent at a departmental meeting or training. Those records are not transmitted to Project. You can select whether or not their costs are transmitted to Project:

Note:

You cannot directly transmit payroll expenses to Project that do not specify a project. In the example from the table above, the \$600 entry would not be transmitted to Project, and Project would receive only the first three entries, totaling \$900.

You can transmit unallocated costs to Project indirectly by proportionally dividing all payroll expenses that are not allocated to a project among the payroll expenses that are allocated to projects. The portion of unallocated payroll expenses that is then added to an allocated payroll cost is calculated by the following formula:

$$\frac{\text{Line payroll expenses allocated to a project}}{\text{Total payroll expenses allocated to projects}} \times \text{Total payroll expenses not allocated to projects}$$

For example, in the table below, the unallocated expenses that need to be divided among the allocated expenses is \$600. The expenses directly allocated to Project 1 in Category 1 are \$150. The total expenses directly allocated to projects are \$900. The Project 1 Category 1 expense is one-sixth of the total allocated expenses. Therefore, one-sixth of the unallocated expenses ($\$600 \div 6 = \100) are added to Project 1 Category 1 (\$150), for a total of \$250 transmitted to Project.

Project	Category	Payroll expenses	Share of unallocated payroll expenses	Total sent to Project	
Project 1	Category 1	\$150	$150 / 900 * 600 =$	\$100	\$250
Project 1	Category 2	\$300	$300 / 900 * 600 =$	\$200	\$500
Project 2	Category 1	\$450	$450 / 900 * 600 =$	\$300	\$750
<none specified>	<none specified>	\$600			
Total for pay period (not sent to Project)		\$1,500		\$600	\$1,500

Setup instructions

The Payroll integration to Project requires that you have installed Payroll for Microsoft Dynamics AX 4.0 version 4.0.0005 and are using Project for Microsoft Dynamics AX 4.0.

To set up the integration, you must first create new expense journals for entries coming from Payroll to Project. Then you can set up Payroll to transmit expenses to those journals.

To create expense journals for payroll data

1. Click **General ledger > Setup > Journals > Journal Names**.
2. Press CTRL+N to create a new line. In the **Name** column, enter a name such as *PR_Expense*. In the **Journal Type** column, select **Project – Expenses**. In the **Account type** column, select **Journal**. Enter information in the other columns, as appropriate, for your organization.
3. If you are not using the Payroll Import API, proceed to the next section, [To set up Payroll parameters for Project integration](#). If you are using the Payroll Import API, continue with steps 4 and 5.
4. If you are setting up Project to transmit time entries to Payroll via the API, you can configure the integration to reverse them when the corresponding actual expenses come from Payroll. To do this, press CTRL+N to create another new line. In the **Name** column, enter a name such as *TimeRev*. In the **Journal Type** column, select **Project – Expenses**. In the **Account type** column, select **Journal**. Enter information in the other columns, as appropriate, for your organization.
5. If you are setting up Project to transmit expense entries to Payroll via the API, you can configure the integration to reverse them when the corresponding actual expenses come from Payroll. To do this, press CTRL+N to create another new line. In the **Name** column, enter a name such as *EarningRev*. In the **Journal Type** column, select **Project – Expenses**. In the **Account type** column, select **Journal**. Enter information in the other columns, as appropriate, for your organization.

To set up Payroll parameters for Project integration

1. Click **Payroll > Setup > Parameters**, then click the **Overview** tab.
2. In the **String value** column for the **Project expense journal name**, enter the name of the journal that you created for payroll expenses.
3. Refer to the **Export projects and categories cost by day** line.
 - If the Project expense journal entries should include totals for a day, select **Yes** in the **String value** column.
 - If the journal entries should include totals for the entire pay period, select **No** in the **String value** column.

4. Refer to the **Include blank projects and categories cost** line.
 - If the integration should include Payroll expenses that are not allocated to projects by apportioning those expenses among the entries that are allocated to projects, select **Yes** in the **String value** column.
 - If Payroll expenses that are not allocated to projects should not be transmitted to Project, select **No** in the **String value** column.
5. If you use the Payroll Import API to transmit time or earnings data from Project to Payroll, and you created reversal journals, set up Payroll to use those journals:
 - If you are accruing time entries, refer to the **Project time reversal expense journal name** line. In the **String value** column, select the name of the accrued time reversal journal.
 - If you are accruing earning entries, refer to the **Project earning reversal expense journal name** line. In the **String value** column, select the name of the accrued earning reversal journal.

Procedures

The following information describes how to use Payroll and Project integration, and how Payroll data is transmitted to Project.

For more information, refer to the following topics:

- [Manage time and earnings in Payroll](#)
- [Transmit Payroll expenses to Project](#)
- [Review Payroll expenses posted to Project](#)
- [Receive Payroll expenses in Project](#)

Manage time and earnings in Payroll

The following information describes how integrating to Project affects standard Payroll procedures:

- [Coordinate data entry from both Project and Payroll](#)
- [Receive time and earnings entries from Project](#)
- [Manage project and category data](#)
- [Automatically generate time and earnings after project-specific entries have been made](#)

Coordinate data entry from both Project and Payroll

If Project has been extended to transmit time and earnings to Payroll, then you need to establish a policy for when you use Project to enter time and earnings and when you use Payroll to complete the processing of those time and earnings for that pay period.

For example, you could establish a policy that you will use Project to enter time and earnings records for a pay period from the time that the previous pay period has been closed in Payroll until one working day after the current pay period ends. Choose a time lag that gives you time to complete your data entry from Project, but still leaves time to process the payroll in Payroll. If you discover that you need to add time or earnings in Project after you have started processing that pay period in Payroll, make sure that those additions do not duplicate entries that you created in Payroll when you created time from rotation or processed time to earnings.

Note:

From Project, you cannot transmit time or earnings to Payroll for a date that is after the pay period that is open in Payroll. For example, if a new pay period starts today, but the previous pay period is still open in Payroll, then time records in Project with today's date will not be transmitted to Payroll, or that record will not be processed. The time and earnings entries that your system sends from Project to Payroll must be dated for the last date of the currently open pay period or earlier.

Receive time and earning entries from Project in Payroll

If Project has been customized to allow time, earnings, or both to be entered in Project and transmitted to Payroll, those time and earnings records will appear in Payroll as soon as they are transmitted.

For more information about approving time entries, open the **Time approval** form (**Payroll > Periodic > Pay period > Time approval**) and press F1.

Manage project and category data

All time and earnings entries include **Project** and **Category** fields. The data in these fields controls if payroll costs are transmitted to Project and how those costs are transmitted.

If time and earning entries are not transmitted from Project or do not have project and category information, then you must enter project and category information for time and earning entries in Payroll.

When you run the time-to-earnings process, the new earnings entries automatically inherit the project and category selections from their time records, so you do not need to enter the data in both places. However, after earnings have been created, changing the project or category selection for a time entry will not automatically update the corresponding earnings entry. You must change the earnings entry manually on the **Earnings** form (**Payroll > Journals > Earnings**).

The generate earnings process can create entries that are not based upon time, such as overtime or shift differential earnings. Those earnings entries will have the project and category of the time record that precipitated the additional earning. For example, a nine-hour time entry might generate an earning entry for eight hours of regular pay plus an earning entry for one hour of overtime pay. Both of those earnings entries will have the same project and category as the nine-hour time record. In general, you should review overtime and similar earnings entries to ensure that the project and category selections are appropriate.

Automatically generate time and earnings after project-specific entries have been made

Be sure that your project-specific time and earnings entries have been created before you use the following forms to create time and earnings entries:

- **Create time from rotation**
- **Process time to earnings**
- **Generate earnings**

The automated processes take into account records that have already been created in the pay period. For example, if an employee who works 40 hours per week already has 35 hours of time records, then the process of creating time from rotation will create another time record to provide the missing five hours. That time record will not appear in Project directly. Your selection in the **Include blank project and category costs** field determines whether these costs are added to the records that are being transmitted to Payroll.

Transmit Payroll expenses to Project

At the end of a pay period, after you have approved and posted payments, benefits, and AP invoices, but before you close the pay period, you are ready to transmit the Payroll costs for that pay period to Project.

1. Click **Payroll > Periodic > Pay period > Project posting**.
2. Select a **Pay group**, and then click **OK**.
3. If you have multiple pay groups, repeat these steps for each pay group.

If you make additional changes before you close the pay period, post to Project again to transmit those changes to your Project expense journals. You cannot close the pay period until all changes relevant to Project have been posted.

You can set up batch processing to post to Project. For more information, click **Help**, select the **Search** tab, and type *batch*.

Form for this feature

Refer to the following information about a form in Payroll for Microsoft Dynamics AX that you will use with this feature.

Form name and locator	Description
Project posting Payroll > Periodic > Pay period > Project posting	Use this form to add actual payroll costs and, optionally, reversing accrual entries to Project expense journals.

Review Payroll expenses posted to Project

You can review the expenses that you posted to Project in the **Project postings inquiry** form.

1. Click **Payroll > Inquiries > Project postings**.
2. Click the **Overview** tab to browse through the most recent postings.
 - **Earnings cost amount** is the total earnings directly associated with the project and category for that employee.
 - **Benefit cost amount** is the portion of benefits that correspond to those earnings
 - **Adjusted earning cost** is the portion of any unallocated earnings being added to this entry
 - **Adjusted benefit cost** is the benefits associated with the unallocated earnings being added to this entry.
 - **Total cost amount** is the total of the above four values. This is the amount that appears in the Project expense journal.

Receive Payroll expenses in Project

When Payroll expenses are transmitted to Project, they appear as unposted entries in the payroll expense journal. Review them, modify them, if required, and post them.

If you have modified Project to keep an accrual journal for time and expenses transmitted to Payroll, those accrual entries will be reversed in Project when the corresponding expenses from Payroll are posted. Those reversal entries appear in separate journals in Project. Review and post them.

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

Worldwide +1-701-281-6500

www.microsoft.com/dynamics

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