

Consultant Course

Project Accounting

P100 Project Implementation and Processing

2025 R1

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How to Use This Course

This course provides a set of lessons that illustrate project accounting processes in a midsize company. The course consists of lessons that guide you step by step through the examples and explanations of the configuration and business process flow in Acumatica ERP.

What Is in This Guide

The guide includes the *Company Story* topic and process activities. The *Company Story* topic explains the organizational structure of the company that has been preconfigured in the *U100* dataset, as well as the company's business processes and requirements. Each of the process activities of the course is dedicated to a particular user scenario and consists of processing steps that you complete.

Which Training Environment You Should Use

All lessons of the course should be completed in an instance of Acumatica ERP 2025 R1 with the *U100* training dataset preloaded; this dataset provides the predefined settings and entities you will need as you complete the activities of this course.

You or your system administrator should prepare an instance of Acumatica ERP 2025 R1, as described in the *How to Create a Tenant with the U100 Dataset* section below.

What Is in a Lesson

Each lesson provides a story describing a particular user scenario and an overview of the relevant features that have been enabled in the system; configuration settings that are related to the described scenario are also listed. The lesson provides a brief overview of the process that should be performed to complete the described scenario, and instructions that guide you through the process in Acumatica ERP.



The lessons are independent and can be completed in any order. However, depending on the sequence in which you complete the course lessons, the settings in the screenshots may differ from the settings in the system.

What Is in Additional Materials

In the *Additional Materials* part of the guide, you can find the following information related to the processes and scenarios covered in the corresponding parts of the guide:

- Additional information related to the processes
- Transactions generated as a result of the processes
- Details about the reports, inquires, and forms you can use to review and gather information related to the processes
- Explanations on how to perform mass-processing operations related to the processes

What the Documentation Resources Are

Acumatica ERP provides a wide variety of documentation resources, which you can access from this course, from the system, or from the [Help portal](#). Links to related information are provided at relevant places throughout the course. The complete Acumatica ERP documentation is available on <https://help.acumatica.com/> and is included in the Acumatica ERP instance.

While viewing any form used in the course (or any other Acumatica ERP form), you can click the **Open Help** button in the top pane to bring up a form-specific Help menu; you can use the links on this menu to quickly access form-related concepts and activities and to open a reference topic with detailed descriptions of the form elements.

How to Create a Tenant with the U100 Dataset

Before you complete this course, you need to add a tenant with the *U100* dataset to an existing Acumatica ERP instance. You will then prepare the tenant for completing the activities. To complete this preparation, perform the following instructions:

1. Go to [Amazon Storage](#).
2. Open the folder that corresponds to the version of your Acumatica ERP instance.
3. In this folder, open the **Snapshots** folder and download the *u100.zip* file.
4. Launch the Acumatica ERP instance and sign in.
5. Open the [**Tenants**](#) (SM203520) form and click **Add New Record** on the form toolbar.
6. In the **Login Name** box, type the name to be used for the tenant.
7. On the form toolbar, click **Save**.



When you create a system tenant, you may be signed out after its creation, depending on how many non-System tenants your Acumatica ERP instance already had:

- If you started with one non-System tenant (to which you are signed in) and you create a new one, the system signs you out to switch from single-tenant mode to multitenant mode.
- If the instance had multiple non-System tenants and you create another, it is already in multitenant mode. Instead of being signed out, you wait until the system completes the operation and then proceed.

8. On the **Snapshots** tab, click **Import Snapshot**.
 9. In the **Upload Snapshot Package** dialog box, select the *u100.zip* file, which you have downloaded, and click **Upload**.
- The system uploads the snapshot and lists it on the **Snapshots** tab of the [**Tenants**](#) form.
10. Open the [**Apply Updates**](#) (SM203510) form and click **Schedule Lockout**.
 11. In the **Schedule Lockout** dialog box, click **OK**.
 12. Open the [**Tenants**](#) form again.
 13. On the form toolbar, click **Restore Snapshot**.
 14. If the **Warning** dialog box appears, click **Yes**.
 15. In the **Restore Snapshot** dialog box, make sure that the correct snapshot package is being uploaded and click **OK**. The system will restore the snapshot and sign you out.
 16. Sign in to the tenant that you have just created.
 17. Open the [**Apply Updates**](#) form again.
 18. On the form toolbar, click **Stop Lockout**.

Which Credentials You Should Use

To complete the lessons, sign in as the following users:

1. Lesson 1: *gibbs*
2. Lesson 2: *gibbs*

3. Lesson 3: *brawner*
4. Lesson 4: *brawner*
5. Lesson 5: *brawner*
6. Lesson 6: *brawner*
7. Lesson 7: *brawner*
8. Lesson 8: *brawner*
9. Lesson 9: *brawner*
10. Lesson 10: *brawner*
11. Lesson 11: *brawner*
12. Lesson 12: *brawner*
13. Lesson 13: *brawner*
14. Lesson 14: *brawner*
15. Lesson 15: *brawner*

The password for each user is 123.

Which License You Should Use

For the educational purposes of this course, you use Acumatica ERP under the trial license, which does not require activation and provides all available features. For the production use of this functionality, you have to activate the license your organization has purchased. Each particular feature may be subject to additional licensing; please consult the Acumatica ERP licensing policy for details.

Company Story

This topic explains the organizational structure and operational activity of the company you will work with during this training.

Company Structure

The SweetLife Fruits & Jams company is a midsize company located in New York City. The company consists of the following branches:

- SweetLife Head Office and Wholesale Center: This branch of the company consists of a jam factory and a large warehouse where the company stores fruit (purchased from wholesale vendors) and the jam it produces. Warehouse workers perform warehouse operations by using barcode scanners or mobile devices with barcode scanning support.
- SweetLife Store: This branch has a retail shop with a small warehouse to which the goods to be sold are distributed from the company's main warehouse. This branch is also planning on selling goods via a website created on an e-commerce platform to accept orders online. The e-commerce integration project is underway.
- SweetLife Service and Equipment Sales Center: This branch is a service center with a small warehouse where juicers are stored. This branch assembles, sells, installs, and services juicers, in addition to training customers' employees to operate juicers.

Operational Activity

The company has been operating starting in the 01-2024 financial period. In November 2024, the company started using Acumatica ERP as an ERP and CRM system and migrated all data of the main office and retail store to Acumatica ERP. The equipment center began its operations in 01-2025 in response to the company's growth.

The base currency of the company and its subsidiaries is the US dollar (USD). All amounts in documents and reports are expressed in US dollars unless otherwise indicated.

SweetLife Company Sales and Services

Each SweetLife company's branch has its own business processes, as follows:

- SweetLife Head Office and Wholesale Center: In this branch, jams and fruit are sold to wholesale customers, such as restaurants and cafes. The company also conducts home canning training at the customer's location and webinars on the company's website.
- SweetLife Store: In the store, retail customers purchase fresh fruit, berries, and jams, or pick up the goods they have ordered on the website. Some of the goods listed in the website catalog are not stored in the retail warehouse, such as tropical fruits (which are purchased on demand) and tea (which is drop-shipped from a third-party vendor).
- SweetLife Service and Equipment Sales Center: This branch assembles juicers, sells juicers, provides training on equipment use, and offers equipment installation, including site review and maintenance services. The branch performs short-term service provision.

The company has local and international customers. The ordered items are delivered by drivers using the company's own vehicle. Customers can pay for orders by using various payment methods (cash, checks, or credit cards).

Part 1: Implementation of Project Functionality

The lessons of this part explain how to configure basic project functionality and create account groups to control information related to the project costs and revenues. The lessons also explain how to create a simple fixed-price project and process it to completion, and how to work with project tasks.

Lesson 1: Configuring Basic Project Accounting

This lesson describes the minimum required configuration of the project accounting functionality that is required for users to work with projects in Acumatica ERP.

Basic Project Configuration: General Information

The project accounting functionality in Acumatica ERP offers a new way of handling financial and management accounting in the company. By using projects, you can break corporate activity into separate units, each of which denotes a set of services provided to a particular customer. You can also track the progress of work being performed for each individual project, and estimate the profitability of the project.

This topic provides a general overview of the configuration steps that you have to perform before you can start using project accounting functionality in Acumatica ERP.

Learning Objectives

In this lesson, you will learn how to perform the initial configuration for the project accounting functionality. In particular, you will do the following:

- Enable the needed system features
- Perform the minimum required configuration
- Learn the recommended settings that you can specify to make the system fit your business requirements

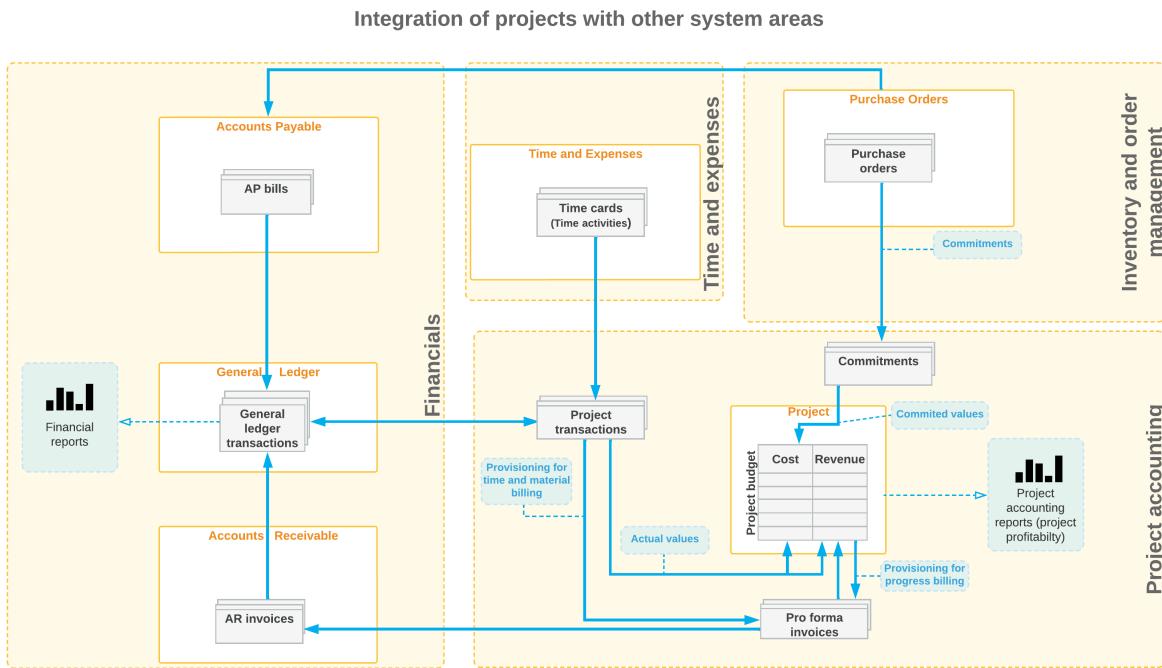
Applicable Scenarios

You perform the basic configuration of the project accounting functionality in either of the following cases:

- When you initially implement Acumatica ERP and the *Projects* feature is included in your license
- When you have purchased the *Projects* feature, and you need to configure project accounting in the already-implemented system

Integration of Projects with Other System Areas

To track budgets, costs, and future revenues for projects, the project accounting functionality can be tightly integrated with other system areas: general ledger, accounts payable, accounts receivable, cash management, inventory and order management, customer management, and time and expenses. By using this integration, you can collect comprehensive information about transactions related to projects. The following diagram illustrates the integration of project accounting with other functional areas of Acumatica ERP.



You specify the system areas in which you want the ability to process documents or transactions related to particular projects by selecting the corresponding check boxes in the **Visibility Settings** section of the [Projects Preferences](#) (PM101000) form. The active projects become visible in all the system areas for which you have selected check boxes on this form; the system adds two additional elements—**Project** and **Task**—to the data entry forms of these areas. Each time you enter a document or transaction, or a document or transaction line, that relates to a specific active project, you select the appropriate project and task to associate this document or transaction (or this document or transaction line) with the project. As a result, the information from these documents and transactions is represented in the project and affects the project budget.

Tracking of Non-Project Transactions

When you are initially configuring the project accounting functionality, you define the non-project code on the [Projects Preferences](#) (PM101000) form. You specify this code for specific documents or transactions (or their lines) to indicate that they are not associated with any project. By default, this code is X, but you can specify a different non-project code. If a particular transaction is not related to any project, you specify the non-project code in the document or transaction, or the document or transaction line. The information from the documents or document lines with the non-project code specified is not used in project accounting and does not update project balances.

Workflow of the Project Accounting Implementation



Each particular feature may be subject to additional licensing; please consult the Acumatica ERP licensing policy for details.

Before you start to configure project accounting, you perform initial system implementation, which may include (but is not limited to) the following configuration steps:

1. You configure basic company settings and implement the minimum general ledger, cash management, accounts payable, and accounts receivable functionality. For details, see [Acumatica ERP Implementation Guide](#).
2. You perform basic configuration of customer management if the *Customer Management* feature is included in your license. For details, see the [Basic Customer Relationship Management](#) chapter.

3. If you plan to include non-stock items in the budget structure, you create non-stock items, as described in the [Creating a Non-Stock Item](#) chapter.
4. You perform basic configuration of order management if the *Inventory and Order Management* feature is included in your license. For details, see the [Order Management with Inventory](#) chapter.
5. You perform basic configuration of inventory if the *Inventory* feature is included in your license. For details, see the [Order Management with Inventory](#) chapter.
6. If you plan to include stock items in the budget structure, you configure stock items, as described in the [Creating Stock Items](#) chapter.
7. If time tracking in projects is planned, you perform basic configuration of time reporting functionality. For an example of configuration, see [Time Tracking Configuration: General Information](#).

To configure project accounting, you perform the following general steps:

1. You enable the *Projects* feature on the [Enable/Disable Features](#) (CS100000) form. On the [Projects Preferences](#) (PO101000) form, you specify the necessary settings (and any optional settings) to be used in project accounting, including the non-project code, which you use to indicate that specific documents or transactions (or their lines) are not associated with any project. For an example of configuration, see [Basic Project Configuration: Implementation Activity](#).
2. On the [Account Groups](#) (PM201000) form, you define the account groups that will aggregate information about the GL transactions related to the projects. For an example of defining account groups, see [Account Groups: To Create an Expense Account Group](#).
3. On the [Billing Rules](#) (PM207000) form, you create the billing rules to be used for billing projects. For details, see the topics of the [Creating Billing Rules](#) chapter.
4. On the [Projects](#) (PM301000) form, you configure a project. For details on the project lifecycle and project configuration, see the topics of the [Creating and Processing Projects](#) chapter.

Basic Project Configuration: Implementation Activity

You perform the following implementation activity to prepare the system for users to create and process projects.

Story

Suppose that you, as the implementation manager of the SweetLife Fruits & Jams company, need to configure the minimum required functionality to prepare the system for accounting for projects.

System Preparation

Before you start configuring the basic project functionality, you perform the following instructions:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded; you should sign in as system administrator by using the *gibbs* username and the *123* password.
2. On the [Enable/Disable Features](#) (CS100000) form, make sure the *Projects* feature is enabled.

Step: Configuring Basic Project Accounting Functionality

To perform basic configuration of the project accounting functionality, proceed as follows:

1. Open the [Projects Preferences](#) (PM101000) form.

2. On the **General** tab (**Default Settings** section), make sure that **X** is specified in the **Non-Project Code** box. This is the code that will be used by default in all transactions and documents that are not related to any projects.
3. Make sure that **<N/A>** is selected in the **Empty Item Code** box, and select **HOUR** in the **Empty Item UOM** box. The system will insert this item and unit of measure, respectively, in project-related lines that are not associated with a specific item.
4. Make sure the **Automatically Post on Release** check box is selected.
5. Make sure the **Automatically Release Allocations** check box is selected.
6. In the **Visibility Settings** section, make sure the check boxes are selected for all areas in which the projects will be used.
7. Save your changes to the form.

You have configured the basic project accounting functionality. Now you can proceed with creating account groups.

Lesson 2: Creating Account Groups

This lesson explains how to define account groups and map general ledger accounts to these account groups.

Account Groups: General Information

An account group is an entity in Acumatica ERP that you map to a subset of general ledger accounts and then specify in project-related documents. Because they are mapped to general ledger accounts, account groups facilitate transfer of the project-related financial information between the general ledger transactions and project transactions.

Learning Objectives

In this lesson, you will learn how to do the following:

- Prepare the system for the creation of account groups
- Create an account group and map accounts to this group
- Review the chart of accounts and find the account group associated with a particular GL account

Applicable Scenarios

You may need to create an account group in the following cases:

- When you are initially configuring project accounting functionality
- When you are going to track a particular type of expenses or another type of project balances separately

Types of Account Groups

You create account groups on the [Account Groups](#) (PM201000) form. An account group can belong to one of the following types: *Asset*, *Liability*, *Expense*, *Income*, or *Off-Balance*. An account group may include any number of general ledger accounts of particular types:

- An account group of the *Asset* or *Liability* type may include asset or liability accounts. Transactions posted to these account groups are displayed on the [Project Budget](#) (PM309000) form and on the **Balances** tab of the [Projects](#) (PM301000) form, but are not displayed on the **Revenue Budget** and **Cost Budget** tabs of the [Projects](#) form.

- An account group of the *Income* or *Expense* type may include accounts of any type (income, expense, asset, or liability). Transactions posted to these account groups are displayed on the [Project Budget](#) form, on the **Balances** tab of the [Projects](#) form, and on the **Revenue Budget** and **Cost Budget** tabs of the [Projects](#) form.
- Account groups of the *Off-Balance* type are not mapped to any general ledger accounts.

You can use account groups of the *Off-Balance* type to collect and track project statistical and other information that is unrelated to finance. The transactions posted to account groups of this type will not update the general ledger. For example, you might define an off-balance group for unrecognized revenue: You may want to see the amount in your project reporting, but you do not want to post to the general ledger until the actual billing is done and thus the revenue is recognized. As another example, you can create an off-balance group for recording all work hours spent by employees on the project if you want to know the total amount associated with the number of work hours spent, but you do not want to post this amount to the general ledger. In addition, you can select the **Expense** check box to track the amounts in the off-balance account group as expenses. The system displays the transactions posted to this account group on the [Project Budget](#) form and on the **Balances** and **Cost Budget** tabs of the [Projects](#) form.

Recommendations for Creating Account Groups

Before you define account groups, you should identify the accounts that will be used in project-related transactions. We recommend that you consider the following rules and limitations as you plan the account groups you will create:

- Each general ledger account can be mapped to only one account group.
- The following accounts should not be included in account groups:
 - An asset account that you might want to use as a control account for the AR subledger. For such an account, **AR** is selected in the **Control Account Module** box on the [Chart of Accounts](#) (GL202500) form. This can be, for example, an accounts receivable account that is debited by customer invoices.
 - An asset account that is used as an Inventory account for stock items.
 - A liability account that you might want to use as a control account for the AP subledger. For such an account, **AP** is selected in the **Control Account Module** box on the [Chart of Accounts](#) form. This can be an accounts payable account that is credited by vendor bills, or a retainage payable account.
 - An account that is linked to a cash account. On the [Chart of Accounts](#) form, this account has the **Cash Account** check box selected.
- Allocation and billing rules select transactions by account groups. If transactions of two accounts should follow different allocation or billing rules or use different rates, these two accounts should be included in different account groups. If the transactions usually use the same rate, consider including their accounts in one group.

Account Groups: To Create an Expense Account Group

In the following implementation activity, you will learn how to create account groups.

Story

Suppose that you, as an implementation manager, are configuring project accounting for SweetLife Fruits & Jams company. You need to create an account group for advertising expenses and map the general ledger account to which the expenses will be recorded to this group.

Step 1: Creating an Account Group

To create an account group, do the following:

1. On the [Account Groups](#) (PM201000) form, create a new record.

2. In the **Account Group ID** box, type ADVERTEXP.

Notice that the **Active** check box is selected by default.

3. In the **Type** box, select *Expense*.
4. In the **Description** box, type Advertising Expenses.
5. On the table toolbar of the **Accounts** tab, click **Add Row**, and in the row, select the 61000 - Advertising Expense account.
6. Save the account group.

Step 2: Reviewing the Chart of Accounts

To make sure that the account group has been configured correctly, do the following:

1. Open the [Chart of Accounts](#) (GL202500) form.
2. In the search box on the form, type 61000.
3. In the **Account Group** column of the only row, notice that ADVERTEXP is specified (as shown in the following screenshot), which means that the account is mapped to this account group.

Chart of Accounts												
<input type="button"/>												
	61000	EXADVERT	Expense	<input checked="" type="checkbox"/>	Advertising Expense	<input type="checkbox"/>	Summary	<input type="checkbox"/>	<input type="checkbox"/>	ADVERTEXP	<input type="checkbox"/>	
>	61000											

Figure: Account mapped to the account group

You have created the account group and mapped a general ledger account to this group.

Lesson 3: Working with Fixed-Price Projects

This lesson explains how you create a project in Acumatica ERP, specify its settings, and work with the project during the project lifecycle.

Project Creation and Processing: General Information

A project in Acumatica ERP is a one-time endeavor with its own budget, costs, and revenues; the funding and deliverables of a project are usually finite. In the system, a project contains various specifications that affect project completion, such as the date range, customer, and resources (including employees and equipment).

Learning Objectives

In this lesson, you will learn how to do the following:

- Plan a project structure
- Create a project and specify its settings
- Plan the structure of the project budget
- Process a project during its lifecycle

Applicable Scenarios

You create a project to plan work to be performed for a customer, define budgets for the planned work, track the progress of completion of the planned work, bill the customers for the provided services, and track the costs and revenues of the provided services.

Type of Projects

You can use projects for tracking activities involving customer interaction (external projects) and in-house work (internal projects). The key objective of external projects is balancing costs and income to make sure the organization remains profitable, while meeting project goals and maximizing customer satisfaction. The scope of internal projects is typically limited to the physical and organizational boundaries of your organization; these projects serve the needs of the organization and never produce any revenue.

Depending on which activities you are going to track, you can configure projects of the following types:

- A fixed-price project, which is an external project in which services and products are provided to customers at a fixed price; the price of the project is defined at the beginning of the project and is not changed during its completion (unless any change orders are processed for the project).
- A cost-plus project, which is an external project in which the prices are calculated as a percentage of the costs. The final price of the cost-plus project depends on the overall cost of fulfilling the project, and the costs may be billed with or without a premium.
- An internal project, which is used to track activities completed within your company. The scope of these projects is limited to the physical and organizational boundaries of an organization; these projects serve the needs of the organization and never produce any revenue. Internal projects have budgets, do not include billing settings, and are not associated with any customer.

Project Settings

You create a new project and specify its settings on the [Projects](#) (PM301000) form. When you are manually adding a new project to the system, you enter the following information:

- General information: This information includes the description, the start and end dates, the project manager, the project address settings, the project currency, and the branch to which the project belongs. You can also specify the billing rule to be assigned to project tasks by default.
- Billing schedule: You define whether you will use direct AR invoices when billing the project, or use the pro forma invoices. Then you determine when the project is billed: on the date of the customer statement, at the end of each month, at the end of each quarter, or at the end of each year.
- Project tasks: You define the project tasks of the project. A project task in a project is a separate work unit with its own lifecycle, budget, cost, revenue, and billing rule. Budgeted, revised, and actual amounts in the project are tracked by account group balances, each of which is the total of all the corresponding amounts in the project tasks. That is, the project does not have any balances beyond those in the project tasks of the project. You can define one of the project tasks to be used by default in lines of records with this project specified. For more information, see [Project Tasks: General Information](#).
- Budget: You define the level of detail for the cost budget and for the revenue budget. The structure of the revenue budget of the project is determined independently from the cost budget structure. Then you specify the budget, which holds the estimated expenses and revenues for a project.
- Default GL accounts: You define the general ledger accounts to be used by default in project-related documents.

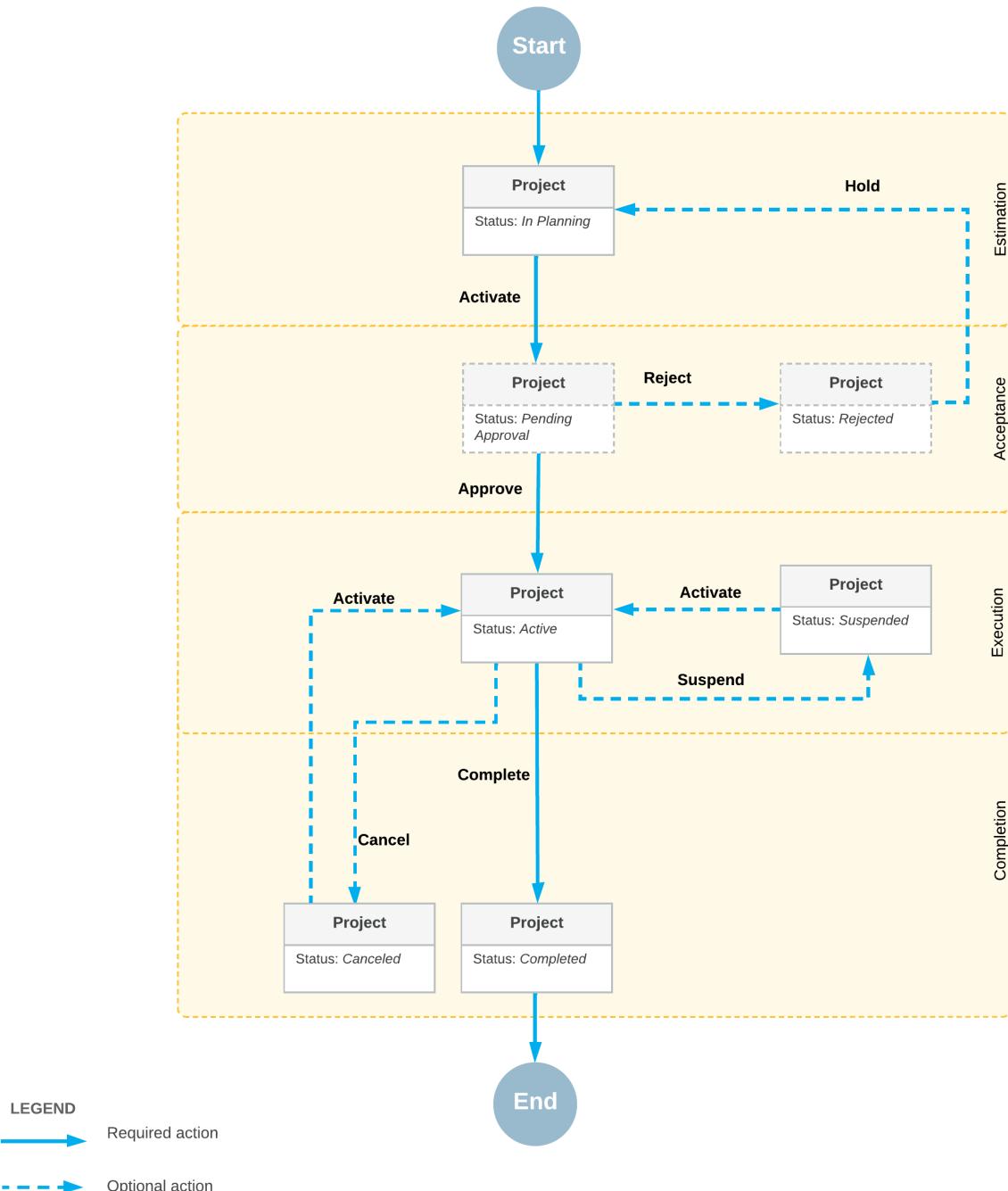
Project Creation and Processing: A Project's Lifecycle

In Acumatica ERP, a project is a one-time or recurring endeavor with a specific scope, time frame, and budget. The following sections describe the common stages of a project's lifecycle: estimation, acceptance, execution, and completion.

Project Stages and Statuses

The following diagram shows the stages a project goes through and the statuses it is assigned from the project's initiation to its completion.

Understanding the project lifecycle



Project Estimation

During the project estimation stage, you specify project settings on the [Projects](#) (PM301000) form, define activities, plan the project tasks, estimate the time required for the completion of each project task, and populate the project record with employees, resources, and equipment. The system assigns each new project and its tasks the *In Planning* status once it has been saved.

Users cannot select projects and project tasks with the *In Planning* status in any records, except for the following types of records that are available for planning:

- Employee activities on the [Activity](#) (CR306010) form
- Tasks on the [Task](#) (CR306020) form
- Email activities on the [Email Activity](#) (CR306015) form
- Purchase orders on the [Purchase Orders](#) (PO301000) form
- Subcontracts on the [Subcontracts](#) (SC301000) form

For instance, you can add an employee activity for planning budgets for project tasks, or record a project commitment. However, if your user account does not have the *Project Accountant* role assigned on the [User Roles](#) (SM201005) form, these documents can be processed further only after the *Active* status is assigned to the project task.

If your user has the *Project Accountant* role, you can release employee activities with project tasks that have the *In Planning* status.

Project Acceptance

The acceptance stage involves reaching an agreement with all the stakeholders, including customers and employees, as well as estimating the budget for the project and the expenditures it will entail. If the approval of projects is not required in your system, the project manager takes the project off hold to assign it the *Active* status. If the approval of projects is required in your system, the system submits the project for approval and assigns it the *Pending Approval* status once it is taken off hold.

If all assigned employees have approved the project on the [Approvals](#) (EP503010) form or on the [Projects](#) (PM301000) form, the system assigns it the *Active* status. If at least one of assigned employees has rejected the project, it is assigned the *Rejected* status. You can assign the *In Planning* status to the project again so that you can edit its details and resubmit it for approval. For more information on approvals, see [Specific Approvals: Projects, Project-Related Documents, and Time Activities](#).

Project Execution

During the execution stage, the project retains the *Active* status, indicating that it is in progress and project transactions can be posted to it. Users can select active projects and their project tasks on the forms of the functional areas in which the projects are visible.



A user can select the project tasks with the *Completed*, *Canceled*, or *In Planning* status on data entry forms only if this user has the *Project Accountant* role assigned to their user account on the [User Roles](#) (SM201005) form.

By default, in newly created transactions and documents, the system inserts the non-project code. When you create a project-related transaction or document, you need to specify the particular project and project task to indicate that this transaction or document must be tracked within the project; also, you can specify whether the transaction or document is billable. If the non-project code is specified in these transactions, they are not tracked in any project.

If any budget changes occur during the course of the project, the system preserves the initial budget amounts, and tracks the revised figures for the project budget.

If your company has decided to temporarily pause all activities on the project, you can assign this project the *Suspended* status. A suspended project is not available for selection on data entry forms, except for forms where employee activities and project commitments can be entered. When work on the project resumes, you can reactivate the suspended project.

Project Completion

The statuses of individual project tasks do not directly affect the status of the corresponding project. Thus, the system does not automatically set a project's status to *Completed* if all of its project tasks have been completed. However, to be able to complete the project, you first need to complete all project tasks included in this project. For more information about project task completion, see [Project Tasks: Tracking Task Completion](#).

Once the project is finished, the project accountant completes it by manually assigning it the *Completed* status, and then analyzes the project profitability. Project transactions can no longer be posted to a project with the *Completed* status.



To simplify the tracking of the project completion percentage, you can create a separate dedicated task and use it exclusively to manually specify the project completion percentage, which you evaluate by using all the information available about the progress of project tasks and project-related transactions.

Alternatively, a project can be canceled. The *Canceled* status indicates that the project has been stopped before its actual completion. A canceled project can be activated again.

Project Creation and Processing: To Create a Fixed-Price Project

This activity will walk you through the process of initial creation of a simple fixed-price project.

Story

Suppose that the Lake Cafe customer has ordered a juicer from the SweetLife Fruits & Jams company, along with two hours of site review and four hours of installation services. The work will start on 1/1/2025 and must be completed by 1/30/2025. SweetLife's project accountant has decided to create a project to track costs and revenues for the performed work. The project will be completed in two phases: Phase 1 will be the site review, and phase 2 will involve the sale and installation of the juicer. To track the progress of each phase separately, the project accountant has decided to define the phases as separate project tasks. Also, the project accountant will specify the revenue budget information for each project task and inventory item.

The project will be billed once, when both of the project tasks are completed. Also, the project accountant has decided to skip the creation of pro forma invoices, because all amounts have already been budgeted and agreed upon with the customer, so the direct AR invoice will be created during the billing process.

Acting as the project accountant, you will create the new project and specify all needed settings.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Stock Items](#) (IN202500) form, the *JUICER10* stock item has been defined.
- On the [Non-Stock Items](#) (IN202000) form, the *SITEREVIEW* and *INSTALL* non-stock items have been defined.
- On the [Billing Rules](#) (PM207000) form, the *PROGRESS* billing rule has been defined. This rule is configured for gradually billing the projects at a fixed contract amount.

Process Overview

On the [Projects](#) (PM301000) form, you will create a new project and specify its general settings on the **Summary** tab. Then on the **Tasks** tab, you will add the project tasks that will be performed during the completion of a project. On the **Revenue Budget** tab, you will define the planned revenue budget for the project.

System Preparation

To prepare to perform the instructions of the activity, do the following:

1. Sign in to the system as Pam Brawner by using the *brawner* username and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/1/2025*. If a different date is displayed, click the Business Date menu button, and select *1/1/2025* on the calendar.

Step 1: Creating a Project and Specifying Its General Settings

To create a new project and specify basic settings for it, do the following:

1. On the [Projects](#) (PM301000) form, create a new record.
2. In the Summary area, specify the following settings:
 - **Project ID:** INSTLAKE01
 - **Customer:** LAKECAFE (*Lake Cafe*)
 - **Project Manager:** EP00000001 (*Pam Brawner*)
 - **Description:** Installation project for Lake Cafe
3. On the **Summary** tab, specify the following settings:
 - **Revenue Budget Level:** *Task and Item*
You select this option to include more detail in the revenue budget structure. With this setting, you will be able to select an inventory item in a revenue budget line.
 - **Cost Budget Level:** *Task and Item*
You select this option to include more detail in the cost budget structure. With this setting, you will be able to select an inventory item in a cost budget line.
 - **Start Date:** *1/1/2025*
 - **End Date:** *1/30/2025*
 - **Change Order Workflow:** Cleared
You clear this check box because for this simple fixed-price project, no changes will be required.
 - **Billing Currency:** *USD* (selected automatically)
 - **Billing Period:** *On Demand*
You select the *On Demand* billing period to indicate that the billing can be performed at any time.
 - **Billing Rule:** *PROGRESS*
This predefined rule will be specified by default in all project tasks added to the project.



For details on configuring billing rules for billing by progress, see [Billing Rules: Progress Billing](#) and [Progress Billing: To Configure a Progress Billing Rule](#).

- **Create Pro Forma Invoice on Billing:** Cleared

You are clearing this check box because you want to create accounts receivable invoices when you bill the project without preliminary creation of pro forma invoices.

- Save your changes to the project (which currently has the *In Planning* status shown in the **Status** box of the Summary area).

Step 2: Adding Project Tasks

To add project tasks to the project, do the following:

- On the **Tasks** tab, add to the project the two tasks listed in the following table by clicking **Add Row** on the table toolbar for each and specifying the listed identifier, task type, and description in the row.

Task ID	Type	Description
PHASE1	<i>Cost and Revenue Task</i>	Site review
PHASE2	<i>Cost and Revenue Task</i>	Installation

Notice that the *PROGRESS* billing rule has been automatically specified for both added tasks.

- On the table toolbar, click **Activate Tasks** to change the status of the added tasks from *In Planning* to *Active*.
- Save your changes to the project.

Notice that the project still has the *In Planning* status even though you have activated both of its project tasks.

Step 3: Specifying the Project Revenue Budget

To specify the project revenue budget, do the following:

- On the **Revenue Budget** tab, add each line of the project revenue budget that is listed in the following table by clicking **Add Row** and specifying the listed settings in the row.

Project Task	Inventory ID	Account Group	Original Budgeted Quantity	Unit Rate
PHASE1	SITEREVIEW	REVENUE	2.00	50.00
PHASE2	JUICER10	REVENUE	1.00	1,500.00
PHASE2	INSTALL	REVENUE	4.00	100.00

- Make sure that the original and revised values in the revenue budget lines have been calculated, as shown in the following screenshot.

Task	Inventory ID	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount
PHASE1	SITEREVIEW	REVENUE Site review	2.00	HOUR	50.0000	100.00	2.00	100.00
PHASE2	INSTALL	REVENUE Installation of equipment at the customers' ...	4.00	HOUR	100.0000	400.00	4.00	400.00
PHASE2	JUICER10	REVENUE Pro series juicer with a production rate of 1...	1.00	PIECE	1,500.0000	1,500.00	1.00	1,500.00

Figure: Revenue budget of a fixed-price project

For each budget line, the system automatically calculated the **Original Budgeted Amount** as the **Original Budgeted Quantity** multiplied by the **Unit Rate**. The system also filled in the **Revised Budgeted Quantity** and **Revised Budgeted Amount** columns with the values of **Original Budgeted Quantity** and **Original Budgeted Amount** columns, respectively.

3. Save your changes to the project.

You have not configured the cost budget for the project because you do not need to track if the project expenses are within the budgeted values. When you enter project transactions that represent the project expenses, the system will automatically populate the cost budget with the actual values.

You have finished configuring the project.

Project Creation and Processing: To Process a Fixed-Price Project

This activity will walk you through the lifecycle of a fixed-price project.

Story

Suppose that the Lake Cafe customer has ordered a juicer from the SweetLife Fruits & Jams company, along with the site review and installation services. SweetLife's project accountant has created a fixed-price project to account for this work. In January 2025, the company employees have performed work related to the project tasks.

Acting as the project accountant, you need to support the project during the entire project lifecycle.

Configuration Overview

For the purposes of this activity, on the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.

Process Overview

You will activate the project to indicate that it has been started. Then you will create and release a project transaction on the [Project Transactions](#) (PM304000) form to record the provided services. You will bill the project on the [Projects](#) (PM301000) form and review the prepared AR invoice on the [Invoices and Memos](#) (AR301000) form. Then you will close the project, and review the profitability report on the [Project Profitability](#) (PM624000) report form.

System Preparation

To prepare to perform the instructions of the activity, do the following:

1. Download the `INSTLAKE01_Project_Transactions` file provided with the course to your computer.
2. Ensure that you have created the `INSTLAKE01` project, as described in [Project Creation and Processing: To Create a Fixed-Price Project](#).
3. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to `1/30/2025`. If a different date is displayed, click the Business Date menu button and select `1/30/2025` on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Activating the Project

To indicate that the `INSTLAKE01` project has been started, do the following:

1. On the [Projects](#) (PM301000) form, open the `INSTLAKE01` project, which you have created in the previous activity.
2. On the form toolbar, click **Activate**. The system assigns the project the **Active** status.

Step 2: Uploading Project Transactions

To upload and process the transactions of this project, do the following:

1. On the [Project Transactions](#) (PM304000) form, add a new record.
2. In the Summary area, specify the following settings:
 - **Module: PM**
 - **Description:** The services for the `INSTLAKE01` project
3. On the table toolbar of the **Details** tab, click **Load Records from File**.
4. In the **File Upload** dialog box, which opens, click **Choose File**, select the file path to the `INSTLAKE01_Project_Transactions` file, and click **Upload**.
5. In the **Common Settings** dialog box, which opens, leave the default settings, and click **OK**.
6. In the **Columns** dialog box, which opens, leave the current column mapping, and click **OK**.
7. Make sure that the **Total Amount** in the Summary area is `1,600.00`.
8. On the form toolbar, click **Save**, and then click **Release**.
9. On the [Projects](#) (PM301000) form, open the `INSTLAKE01` project, and make sure that the **Actual Expenses** box in the Summary area now shows `1,600.00`.

On the **Cost Budget** tab, notice that the system has updated the cost budget of the project—that is, three cost budget lines have been added based on the project transaction that you have released. Also, the **Actual Quantity** and **Actual Amount** columns have been populated with the amounts from the corresponding lines of the project transaction.

Step 3: Billing the Project

To create an accounts receivable invoice for the project, do the following:

1. While you are still viewing the `INSTLAKE01` project on the [Projects](#) (PM301000) form, on the **Revenue Budget** tab, specify `100 . 00` as the **Completed (%)** in each of three revenue budget lines to indicate that the project tasks have been fully completed.

The system calculates the **Pending Invoice Amount** of the revenue budget lines as \$100, \$400, and \$1,500. The **Pending Invoice Amount Total** in the Summary area is \$2,000.

2. Save your changes to the project. Because the project is billed on demand and has a nonzero pending invoice amount, you can now bill the project.
3. On the form toolbar, click **Run Billing**. The system creates an AR invoice, which should look like the one shown in the following screenshot, and opens it on the *Invoices and Memos* (AR301000) form. The system creates the invoice lines based on the revenue budget lines of the corresponding project with amounts that are equal to the pending invoice amounts. The invoice total, which is \$2,000, is equal to the pending invoice total.

Inventory ID	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Amount	* Account
SITEREVIEW	Site review	0.00	HOUR	50.0000	100.00	0.000000	0.00	100.00	40000
INSTALL	Installation of equipment at the customers' ...	0.00	HOUR	100.0000	400.00	0.000000	0.00	400.00	40000
JUICER10	Pro series juicer with a production rate of 1...	0.00	PIECE	1,500.0000	1,500.00	0.000000	0.00	1,500.00	40000

Figure: The AR invoice created during the billing

4. On the form toolbar of the *Invoices and Memos* form, click **Remove Hold** to assign the *Balanced* status to the accounts receivable invoice, and then click **Release**.
5. Return to the *Projects* form with the *INSTLAKE01* project opened, and press Esc to refresh the details. In the Summary area, make sure that the **Actual Income** box now shows *2,000.00*, which is the amount the customer has been billed.

Step 4: Closing the Project

To complete the project and analyze its profitability, do the following:

1. While you are still viewing the *INSTLAKE01* project on the *Projects* (PM301000) form, on the **Tasks** tab, specify the following settings for both lines in the table:
 - **Status:** *Completed*
 - **Completed (%):** 100 (inserted automatically when you change the task's status to *Completed*)
 - **End Date:** *1/30/2025* (inserted automatically when you change the task's status to *Completed*)
2. On the form toolbar, click **Complete**. In the **Status** box of the Summary area, the system changes the status of the project from *Active* to *Completed*.
3. On the form toolbar of the *Project Profitability* (PM624000) report form, click **Run Report**, and review the line with the *INSTLAKE01* project. The calculated profit margin is \$400 (20%).

You have finished working with the project.

Lesson 4: Creating Project Tasks

This lesson explains how to create project tasks, specify settings for them, and track task completion.

Project Tasks: General Information

In Acumatica ERP, each project can consist of one project task or multiple project tasks. A project task is the smallest identifiable piece of work that is a part of the project, and you can select a billing rule for each project task to determine how it will be billed. In the following sections, you will find information about creating project tasks.

Learning Objectives

In this lesson, you will learn how to do the following:

- Create a project task for a particular project
- Configure the rules of the project task completion
- Configure a project task to be billed separately from other project tasks
- Set a project task as a default for a project

Applicable Scenarios

You create a project task in the following cases:

- When you are configuring a new project from the beginning
- When you need to add a new project task to an existing project

Project Task Creation and Settings

Each project task is linked to a particular project and has a unique identifier. Project tasks are always defined within the scope and limitations of a specific project; a particular project task may have additional limitations within the scope of the project. You create new project tasks in a project by adding a row for each task to the **Tasks** tab of the [Projects](#) (PM301000) form. You can then review the settings of the project task on the [Project Tasks](#) (PM302000) form.



You can create new project tasks directly on the [Project Tasks](#) form by specifying the identifier of the project to which the project task relates, the identifier of the new project task, and the settings specific for the project task.

For a project task, you can define the following settings, which are specific to the task and do not extend to the project:

- Date range: You can narrow the date range of the task, as long as it remains within the start and end dates of the project. The start and end dates are specified for informational purposes and do not affect any processes performed for this project task.
- Billing rule (and optional rate): By default, the system assigns to the added project task the billing rule that is specified on the **Summary** tab of the [Projects](#) form for the project. Billing rules are defined on the [Billing Rules](#) (PM207000) form.

If complex billing rules have to be configured for billing the project task, you also need to assign the appropriate rate table to the project task.

- Separate billing: You can select the **Bill Separately** check box on the **Summary** tab of the [Project Tasks](#) form to make the system create a separate invoice for the project task.
- Allocation rule: You can define the allocation rule for a particular project task.
By default, the system assigns to a newly added project task the default allocation rule of the project which is specified on the **Summary** tab of the [Projects](#) form.
- Method of calculating task completion percentage: You can define the project task to be completed manually or based on the budgeted quantity or amount.
- Visibility settings: The project task may be visible only in the parts of the system in which the associated project is visible. You can leave these default visibility settings, or apply additional visibility limitations for the project task.

In addition, you can specify that a particular project task is the default task of the project, so that the system will populate this task automatically in all related documents in which a user will select this project.

Statuses of Project Tasks

A project task can be assigned one of the following statuses:

- *In Planning*: The project task is a draft; this status is automatically assigned to a new task. A project task with this status is available for selection only in employee activities and project commitments.
- *Active*: The project task is active and available for selection on data entry forms. An active task can be assigned the *In Planning* status.
- *Completed*: The project task is completed. A completed task can be activated again if the corresponding project is not completed.
- *Canceled*: Progress on the project task was started but then stopped before task completion and there is no intention to continue work on the task. A canceled project task can be activated again if the corresponding project is not completed.

Document Entry and Processing

Users cannot select projects and project tasks with the *In Planning* status in any records, except for the following types of records that are available for planning:

- Employee activities on the [Activity](#) (CR306010) form
- Tasks on the [Task](#) (CR306020) form
- Email activities on the [Email Activity](#) (CR306015) form
- Purchase orders on the [Purchase Orders](#) (PO301000) form
- Subcontracts on the [Subcontracts](#) (SC301000) form

For instance, you can add an employee activity for planning budgets for project tasks, or record a project commitment. However, if your user account does not have the *Project Accountant* role assigned on the [User Roles](#) (SM201005) form, these documents can be processed further only after the *Active* status is assigned to the project task.

If your user has the *Project Accountant* role, you can release employee activities with project tasks that have the *In Planning* status.

Default Project Tasks in Record Lines

When you create a project-related record, you must specify a project task for each line of the record. When you are creating a project, you can define one project task of a project as the default one to speed up data entry. The system will automatically insert this project task in the lines of documents when you select the project.

If you are entering an employee activity on the [Activity](#) (CR306010) form, a task on the [Task](#) (CR306020) form, or an email on the [Email Activity](#) (CR306015) form, the system also checks the status of the selected project's default project task. If you select a project whose default project task has the *In Planning* or *Active* status, this project task

is inserted automatically. If the project has no default project task or the default project task has the *Canceled* or *Completed* status, the **Project Task** box on the form remains empty.

Default Project Tasks for Particular GL Accounts

When you process an AR invoice or AP bill related to the project, the system may automatically generate additional GL transaction lines—for instance, to include a discount or freight charge. To automatically associate these transaction lines with specific project tasks, you need to map particular general ledger accounts to specific project tasks within the project in the **Default Task for GL Account** table on the **Defaults** tab of the [Projects](#) (PM301000) form. In the automatically generated transaction lines posted to the GL account mapped to a project task, the system will specify this project task by default.

When you select a GL account mapped to a project task in the **Account** column in a line of a project-related AR invoice on the [Invoices and Memos](#) (AR301000) form, the system will automatically specify the mapped project task in the line. If the account is not mapped to any project task, the default project task (if one is specified for the project) is inserted in the line.



The defined account mapping does not affect the entry of project-related bills on the [Bills and Adjustments](#) (AP301000) form. In the bill lines, the system inserts the default task of the project if it is configured on the **Tasks** tab of the [Projects](#) form.

Project Tasks: To Add a Project Task to a Project

In the following implementation activity, you will learn how to add a project task to an existing project.

Story

Suppose that the SweetLife Fruits & Jams company is managing a project for the HM's Bakery and Cafe customer, which has ordered the installation of two juicers. A project for this work is currently in progress; the installation of the juicers is 75% completed and is supposed to be completed by 1/30/2025.

Further suppose that the customer notifies you that its employees need training on operating the juicers; you need to add a project task for this activity to the project and add to the cost budget a cost budget line related to this task. You want to bill the customer separately for the conducted training, and to close the project task based on the budgeted quantity, which is 16 hours of training, eight of which has been already provided to the employee.

Acting as a SweetLife project accountant, you need to add a new project task for the employee training to the existing project, and specify the settings of the project task. Because the other project tasks are going to be completed soon, you also will set the newly added project task as the default task of the project. Also you need to record the training session that has been already conducted.

Process Overview

In this activity, you will add a new project task to the existing project on the [Projects](#) (PM301000) form, and specify the standard settings of the project task. Then you will enter specific settings for the project task on the [Project Tasks](#) (PM302000) form.

Configuration Overview

In the U100 dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Projects](#) (PM301000) form, the *HMBAKERY15* project has been created.

- On the [Project Tasks](#) (PM302000) form, the *PHASE1* and *PHASE2* project tasks have been created for the *HMBAKERY15* project. For both tasks, in the **Task Properties** section of the **Summary** tab, **Completed (%)**, which represents the completion percentage, is 75%, and the **Start Date** is 1/30/2025.
- On the [Non-Stock Items](#) (IN202000) form, the *TRAINING* non-stock item has been defined.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is displayed, click the Business Date menu button, and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Adding a Project Task to the Project

To add a new project task to a project, do the following:

- On the [Projects](#) (PM301000) form, open the *HMBAKERY15* project.
- On the **Tasks** tab, add a new row, and specify the following settings in the row:
 - Task ID:** *TRAINING*
 - Type:** *Cost and Revenue Task*
 - Description:** Employee training
 - Billing Rule:** *TM* (specified automatically)
 - Status:** *Active*
 - Start Date:** 1/30/2025
 - Default:** Selected
- Save your changes.

Step 2: Configuring Advanced Settings for the Project Task

To review the newly added project task and specify advanced settings for it, do the following:

- On the [Project Tasks](#) (PM302000) form, select *HMBAKERY15* as the **Project ID** and *TRAINING* as the **Task ID**.
- On the **Summary** tab, in the **Completion Method** box, select *Budgeted Quantity*.
- In the **Billing and Allocation Settings** section, select the **Bill Separately** check box to make the system create a separate invoice for this project task during the billing of the project.
- Save your changes.

Step 3: Adding the Related Cost Budget Line

To add the costs related to conducting the training to the budget, do the following:

- On the [Projects](#) (PM301000) form, open the *HMBAKERY15* project.
- On the **Cost Budget** tab, add a line with the following settings:
 - Project Task:** *TRAINING* (selected automatically as the default project task)
 - Inventory ID:** *TRAINING*
 - Account Group:** *LABOR*
 - Description:** Training for employees
 - Original Budgeted Quantity:** 16
 - UOM:** *HOUR*

- **Unit Rate:** 40
 - **Auto-Completed (%):** Selected
3. Save your changes to the project.

You have added a new project task to the project, configured the project task settings, and budgeted the new project task.

Step 4: Processing a Project Transaction

To record the provided training, perform the following steps:

1. On the *Project Transactions* (PM304000) form, create a new record.
2. In the Summary area, make sure that **PM** is selected in the **Module** box, and enter **An 8-hour training session** as the **Description**.
3. On the **Details** tab, add a new line with the following settings:
 - **Project:** HMBAKERY15
 - **Project Task:** TRAINING (selected automatically as the default project task)
 - **Cost Code:** 00-000
 - **Account Group:** LABOR
 - **Inventory ID:** TRAINING
 - **UOM:** HOUR



The unit of measure must be the same as the one specified in the cost budget line.

4. Make sure that the **Total Amount** in the Summary area is **360.00**, and save the project transaction.
5. On the form toolbar, click **Release**.
6. On the *Projects* (PM301000) form, open the **HMBAKERY15** project.
7. On the **Cost Budget** tab, review the cost budget line with the **TRAINING** project task. Notice that **Actual Amount** in this line is now **360.00** and the **Actual Quantity** is **8**, meaning that the project transaction that you have processed has affected the cost budget (see the following screenshot).

Projects																																																																																				
HMBAKERY15 - Installing juicers																																																																																				
<input type="button" value="COMPLETE"/> <input type="button" value="RUN BILLING"/> ...																																																																																				
* Project ID:	HMBAKERY15	Customer:	HMBAKERY - HMs Bakery & Cafe	Actual Income:	0.00	Actual Expenses:	360.00	Margin Amount:	-360.00	Margin (%):	0.00	Pending Invoice Ama...																																																																								
Template:		Project Manager:	EP00000001 - Pam Brawner	Original Budgeted Quantity:		Unit Rate:		Original Budgeted Amount:		Revised Budgeted Quantity:		Revised Budgeted Amount:																																																																								
Status:	Active	Description:	Installing juicers	Actual Quantity:	8.00	Actual Amount:	360.00	Actual Quantity:	8.00	Actual Amount:	360.00	Actual Quantity:																																																																								
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Figure: The cost budget line affected by the project transaction

8. On the **Tasks** tab, review the **Completed (%)** box in the line with the *TRAINING* task, and notice that 50% of the task has been completed.

You have added a new project task to the existing project and processed a transaction that updates the cost budget line with this project task.

Part 2: Capturing of Costs for Projects

The lessons of this part explain how to track project expenses by processing project transactions, purchase orders, and AP bills. You will also learn how to review captured costs in the project budget of the corresponding projects.

Lesson 5: Capturing Costs for Projects

This lesson explains how you can use project transactions for tracking budget costs and revenue directly—either without updating the general ledger or with these GL updates.

Project Transactions: General Information

Project accounting is integrated with other functional areas of Acumatica ERP. Project-related information from other functional areas flows to projects by means of project transactions that are used for tracking budget costs and revenue. You can also create project transactions directly without involving other documents.

Learning Objectives

In this lesson, you will learn how to do the following:

- Capture project costs using project transactions
- Make the system create a project transaction based on a GL transaction
- Create a project transaction without posting to the general ledger
- Review how the system has updated the project budget on release of the project transaction

Applicable Scenarios

You manually create project transactions if you need to directly capture project costs without updating the general ledger. The transactions created for a project update the actual values of the project budget with the incurred expenses that you may need in one of the following cases:

- To control the amount of money spent on the project against the budgeted values
- To bill the customer for the incurred expenses
- To control the project profitability

You manually create general ledger transactions for a project if you need to directly capture project costs without creating original documents (such as bills, purchase orders, or time activities).

Manual Creation of Project Transactions

You can create a project transaction directly on the [Project Transactions](#) (PM304000) form. When you specify the **Debit Account** and **Credit Account** for the project transaction and release the transaction, the system creates the following general ledger transactions on the [Journal Transactions](#) (GL301000) form, based on whether the amount of the project transaction is positive or negative:

- For a positive amount, the GL transaction debits the debit account of the project transaction and credits the credit account.
- For a negative amount, the GL transaction credits the debit account of the project transaction and debits the credit account.

If either a debit account or a credit account is not specified in the project transaction, on the release of the transaction, the system does not generate the corresponding GL transaction.

If the *Subaccounts* feature is enabled on the [Enable/Disable Features](#) (CS100000) form, you must specify the debit subaccount along with the debit account (if one is specified); otherwise, the project transaction will not produce a general ledger transaction. Similarly, you must specify the credit subaccount along with the credit account (if one is specified); otherwise, the project transaction will not produce a general ledger transaction.

Update of the Project Budget with Project Transactions

The project budget key is the combination of the project, project task, account group, inventory item, and cost code, if applicable. The system uses the project budget key to match the transaction with a project budget line. If a budget line with the same project budget key exists, the system updates the **Actual Quantity** and **Actual Amount** of the corresponding budget line. For a new project budget key that does not exist in the project budget, the system creates a new budget line. For a detailed explanation on the rules that the system uses to update or create budget lines, see [Project Transactions: Update of the Project Budget Structure](#).

For each line of a project transaction on the [Project Transactions](#) (PM304000) form, the system uses the following rules to update the budget of the corresponding project:

1. The system determines the number of lines to be updated as follows:
 - If an account group but no credit account group is specified in the project transaction line, the system will update one project budget line.
 - If the project transaction line has both an account group and a credit account specified, the system will update two project budget lines: the line with the project budget key that includes the account group, and the line with the project budget key that includes the credit account group.
2. The system updates the budget as follows, depending on the type of the account group specified in the **Account Group** or **Credit Account Group** column:
 - *Expense*: The system updates the cost budget line of the project on the **Cost Budget** tab of the [Projects](#) (PM301000) form.
 - *Income*: The system updates the revenue budget line of the project on the **Revenue Budget** tab of the [Projects](#) form.
 - *Asset, Liability, or Off-Balance*: The system updates only the project balance on the **Balances** tab of the [Projects](#) form; it does not update any revenue budget lines or cost budget lines of the project. The system also creates a line on the [Project Budget](#) (PM309000) form.
3. The system updates the actual amount in the project budget lines as follows:
 - If an account group of the *Expense* or *Asset* type was specified in the **Account Group** column, the system updates the actual amount by adding the amount in the project transaction line.
 - For an account group of the *Income* or *Liability* type that was specified in the **Account Group** column, the system updates the actual amount by subtracting the amount in the project transaction line.
 - If an account group of the *Expense* or *Asset* type was specified in the **Credit Account Group** column, the system updates the actual amount by subtracting the amount in the project transaction line.
 - For an account group of the *Income* or *Liability* type that was specified in the **Credit Account Group** column, the system updates the actual amount by adding the amount in the project transaction line.
4. The system updates the actual quantities in the project budget lines as follows:
 - For the account group that was specified in the **Account Group** column, the system updates the actual quantity by adding the quantity in the project transaction line.
 - For the account group that was specified in the **Credit Account Group** column, the system updates the actual quantity by subtracting the quantity in the project transaction line.

Project Transactions: GL Transactions Related to Projects

On the [Journal Transactions](#) (GL301000) form, you can directly create a general ledger transaction related to a specific project and project task. To associate the transaction line with a project, you specify this project in the **Project/Contract** column and the applicable project task in the **Project Task** column.



If a general ledger transaction has a project and project task specified, in the **Account** column on the [Journal Transactions](#) form, you can select only an account that is mapped to an account group on the [Account Groups](#) (PM201000) form.

Creation of Project Transaction

When a batch of GL transactions is released, for each transaction line in the batch with a project and project task specified, the system creates the corresponding project transaction with the following settings specified in a row of the table on the [Project Transactions](#) (PM304000) form:

- **Project:** The project associated with the GL transaction
- **Project Task:** The project task associated with the GL transaction
- **Inventory ID:** The inventory item associated with the GL transaction
If no item is associated with the GL transaction, the system uses the empty item code, which is <N/A> by default and specified on the [Projects Preferences](#) (PM101000) form.
- **Debit Account:** The account of the GL transaction
- **Account Group:** The account group to which the account of the GL transaction is mapped on the [Account Groups](#) (PM201000) form
- **Credit Account:** Empty
- **GL Batch Nbr.:** The batch number of the GL transaction



When a transaction is generated in another functional area of Acumatica ERP—such as accounts receivable, accounts payable, order management, or time and expenses—and posted to the general ledger, the system generates the corresponding project transaction in the same way as on release of GL transactions.

Amount and Quantity in the Project Transaction Lines

For each line of the project transaction that has been generated on release of a general ledger transaction, the system uses the following rules to specify the amount:

- For the debit side of the GL transaction, the system specifies the actual amount in the corresponding project transaction line as follows:
 - If the type of the GL account matches the type of the account group, then the system copies the debit amount of the GL transaction line to the project transaction line with the same sign.
 - If the type of the GL account does not match the type of the account group, then the system copies the debit amount of the GL transaction line to the project transaction line with the reversed sign.
- For the credit side of the GL transaction, the system specifies the actual amount in the corresponding project transaction line as follows:
 - If the type of the GL account matches the type of the account group, then the system copies the credit amount of the GL transaction line to the project transaction line with the reversed sign.
 - If the type of the GL account does not match the type of the account group, then the system copies the credit amount of the GL transaction line to the project transaction line with the same sign.

For each line of the project transaction that has been generated on release of a general ledger transaction, the system uses the following rules to specify the quantity:

- If the type of the GL account matches the type of the account group, the system copies the quantity of the GL transaction line to the project transaction line with the same sign.
- If the type of the GL account does not match the type of the account group, the system copies the quantity of the GL transaction line to the project transaction line with the reversed sign.

Project Transactions: Process Activity

This activity will walk you through the process of creating project transactions from general ledger transactions and from scratch.

Story

Suppose that the Thai Food Restaurant customer has ordered training from the SweetLife Fruits & Jams company on how to use a juicer the company previously bought. Based on the agreement with the customer, SweetLife's project accountant has created a project and has created the following tasks corresponding to the phases of training:

- *PHASE1*: Training is going to be provided within this task and is subject to billing. Any additional expenses incurred during the completion of this task will not be billed.
- *PHASE2*: If additional training is required after the initial training in the first task, it will be provided within this task and will not be billed.

In the first phase, a consultant has provided eight hours of training and spent \$50 on a taxi. Then the customer requested additional training, and the consultant has provided four extra hours of training in the second phase.

Acting as the project accountant, you need to enter the general ledger transactions to directly capture the costs involved with delivering the first phase of training. The Thai Food Restaurant company covers travel expenses, so they should not affect the project budget. Then you need to enter the project transaction to capture the costs involved with delivering the second phase of training, but the costs should not affect the general ledger.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the *Enable/Disable Features* (CS100000) form, the *Project Accounting* feature has been enabled to provide support for the project accounting functionality.
- On the *Projects* (PM301000) form, the *TOMYUM1* project for the *TOMYUM (Thai Food Restaurant)* customer has been created, and the *PHASE1* and *PHASE2* project tasks have been created for the project.
- On the *Account Groups* (PM201000) form, the *LABOR* account group has been created. The *54100 (Project Labor Expense)* account has been mapped to the account group.
- On the *Non-Stock Items* (IN202000) form, the *TRAINING* non-stock item has been configured. The *54100 (Project Labor Expense)* account has been specified as the expense account of the item.

Process Overview

On the *Journal Transactions* (GL301000) form, you will create a batch of general ledger transactions with the project and project task specified to record the work related to the first phase of the training. You will release the batch, which will generate the corresponding project transaction. Then you will review this transaction on the *Project Transaction Details* (PM401000) form. Finally, on the *Project Transactions* (PM304000) form, you will create and release a batch of project transactions that represents the second phase of the training and does not affect the general ledger.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is displayed, click the Business Date menu button, and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Creating General Ledger Transactions

To create a batch of general ledger transactions to represent the first phase of the training (the *PHASE1* task), do the following:

1. On the [Journal Transactions](#) (GL301000) form, add a new record.
 2. In the Summary area, make sure **GL** is selected as the **Module**.
 3. In the **Description** box, type A training session for the *TOMYUM1* project.
 4. On the table toolbar, click **Add Row** to add the first row, which represents your training expenses within the first phase of the project, and specify the following settings in the row:
 - **Account:** 54100 (*Project Labor Expense*)
 - **Project/Contract:** *TOMYUM1*
 - **Project Task:** *PHASE1*
 - **Cost Code:** 00-000 (inserted automatically)
 - **Debit Amount:** 320
 - **Transaction Description:** 8 hours of training for the customer's employee
 5. Add the second row, which represents the non-project (travel) expenses, and specify the following settings in the row:
 - **Account:** 81000 (*Other Expenses*)
 - **Project:** X (inserted automatically)

This transaction will not affect the project budget of the *TOMYUM1* project.

 - **Cost Code:** 00-000 (inserted automatically)
 - **Debit Amount:** 50
 - **Credit Amount:** 0
 - **Transaction Description:** Travel expenses
 6. Add the third row, which balances the batch of transactions, and specify the following settings in the row:
 - **Account:** 23015 (*Accrued Expenses*)
 - **Project:** X (inserted automatically)
 - **Cost Code:** 00-000 (inserted automatically)
 - **Credit Amount:** 370 (inserted automatically)
 - **Transaction Description:** Project and travel expenses
 7. On the form toolbar, click **Remove Hold** to assign the general ledger transaction the *Balanced* status, and then click **Release**.
- When you release the general ledger transaction, for the row with the specified project and project task, the system creates the corresponding project transaction. In the created project transaction, the system specifies the account group to which the account in the transaction row is mapped.
8. On the [Project Transaction Details](#) (PM401000) form, in the Selection area, select *TOMYUM1* as the **Project**. Make sure that the **Account Group** and **Project Task** boxes are cleared. In the table, review the project transaction that has been created based on the GL transaction that you have processed earlier. Notice the following:

- The system has created only one project transaction because only one row of the general ledger transaction has the specified project and project task.
- The reference number of the corresponding batch of general ledger transactions is shown in the **GL Batch Nbr.** column.
- The **Debit Account** is *54100 (Project Labor Expense)*.
- The **Debit Account Group** of the project transaction is *LABOR*.
The system selected the *LABOR* account group as the debit account group of the transaction because the *54100 (Project Labor Expense)* account is mapped to this account group.
- The **Credit Account** and **Credit Account Group** columns are empty in the row.

Step 2: Creating a Project Transaction Without Posting to the General Ledger

To create a project transaction that does not affect the general ledger and represents the training expenses within the second phase of the training (the *PHASE2* task), do the following:

- On the *Project Transactions* (PM304000) form, create a new record.
- In the Summary area, make sure *PM* is selected as the **Module**.
- Enter *A 4-hour training session* as the **Description**.
- In the table on the **Details** tab, add a new row, and specify the following settings:
 - Project:** *TOMYUM1*
 - Project Task:** *PHASE2*
 - Cost Code:** *00-000*
 - Account Group:** *LABOR*
 - Inventory ID:** *TRAINING*
 - Quantity:** *4*
 - Billable:** Cleared
 - Amount:** *160*

You leave the **Debit Account** and **Credit Account** columns empty, so that the corresponding general ledger transaction will not be created. The system also will not use this transaction for billing because you cleared the **Billable** check box in the line.

- On the form toolbar, click **Save** and then **Release** to save your changes to the project transaction and release it.

Notice that the **GL Batch Nbr.** column is empty, as shown in the following screenshot, indicating that no corresponding general ledger transaction has been created.

UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account	Credit Account	Credit Account Group	* Date	* Fin. Period	GL Batch Nbr.
HOUR	4.00	<input type="checkbox"/>	0.00	0.0000	160.00				1/30/2025	01-2025	

Figure: The project transaction that produces no GL transaction

6. On the [Projects](#) (PM301000) form, open the *TOMYUM1* project, and on the **Cost Budget** tab, notice that the cost budget now includes two budget lines:
 - The line with the *PHASE1* project task and the *<N/A>* inventory item that has been added to the budget based on the project transaction created on release of the general ledger transaction. This line will be included in the next billing.
 - The line with the *PHASE2* project task and the *TRAINING* inventory item that has been added to the budget based on the project transaction that you created and released. This line will not be billed.

The actual values in both lines have been updated based on the project transactions that you have processed.

You have captured the costs for the project.

Lesson 6: Purchasing Materials and Services for Projects

This lesson describes how to configure and use separate warehouse locations for tracking the inventory items that are sold or purchased for a project.

Purchase of Materials and Services: General Information

In Acumatica ERP, you can purchase materials and services for a particular project so that these purchases will be recorded as commitments to the cost budget of the project. This helps you to track the amount of money and resources spent on the project against the budgeted values and the project profitability.

The following sections explain how you process purchases for a project in which separate warehouse locations are configured for each project task.

Learning Objectives

You will learn how to do the following:

- Create a purchase order with materials and services for a project
- Prepare a purchase receipt for the purchase order
- Enter the accounts payable bill for the purchase order
- Review the project and GL transactions that are generated during the processing of a purchase

Applicable Scenarios

You process a purchase order for a project if you need to record the receipt of items to a warehouse for the project. As a result of a purchase being processed, the actual values of the project budget are updated with the cost of the purchased items.

Purchase of Materials and Services for a Project

To process a purchase of materials and services for a project with these items being received to a warehouse, you use a purchase order of the *Normal* type. On the **Details** tab of the [Purchase Orders](#) (PO301000) form, to associate a purchase order line with a project, you specify the project and project task in the line. It is possible to process purchases for multiple projects with a single purchase order.



If you purchase some material from a vendor directly to a customer and do not need to receive the material to your warehouse, use a purchase order of the *Project Drop Ship* type for processing this purchase. For more information, see [Purchases to the Project Site: General Information](#) and [Purchases to the Project Site with a Receipt: General Information](#).

The processing of a purchase order line depends on the type of the inventory item specified in this line. When you select an inventory item in a purchase order line, the system assigns the line one of the following types, depending on the selected item:

- *Goods for IN* type: A stock item. For more information on processing purchases of stock items, see [Purchases of Stock Items: General Information](#).
- *Non-Stock* type: A non-stock item that is configured so that the system requires a purchase receipt for it. For more information on purchasing non-stock items with receipts, see [Purchases of Non-Stock Items and Services with Receipts: General Information](#).
- *Service* type: A non-stock item that is configured so that the system does not require a purchase receipt for it. For more information on purchasing services, see [Purchases of Services Without Receipts: General Information](#).

When the items of a purchase order have been received to a warehouse, you create a purchase receipt by opening the purchase order and clicking **Enter PO Receipt** on the form toolbar of the *Purchase Orders* form. The system automatically adds the purchase order lines of the *Goods for IN* and *Non-Stock* types to the created purchase receipt and opens it on the *Purchase Receipts* (PO302000) form.

If the **Internal Cost Commitment Tracking** check box is selected on the *Projects Preferences* (PM101000) form, when the purchase receipt is released and the corresponding inventory receipt is released on the *Receipts* (IN301000) form, the system updates the committed values in the corresponding budget lines of the project on the **Cost Budget** tab of the *Projects* (PM301000) form.

After the items have been received, you create an accounts payable bill for the purchase order selected on the *Purchase Orders* form by clicking **Enter AP Bill** on the form toolbar. Then you release the prepared AP bill on the *Bills and Adjustments* (AP301000) form.

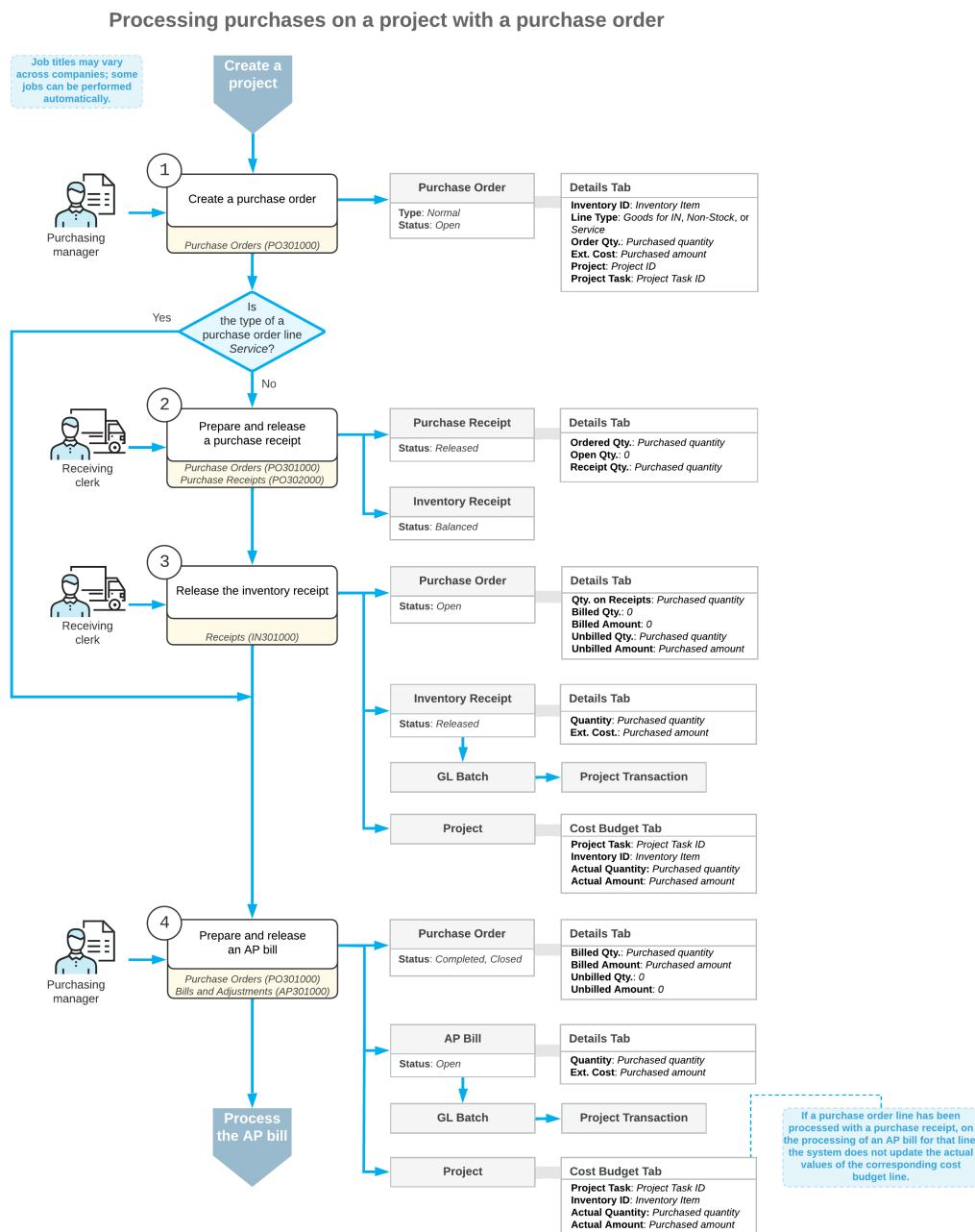
When the bill is released, for the purchase order lines of the *Service* type, the system updates the actual values in the cost budget lines of the project with the same project budget key on the **Cost Budget** tab of the *Projects* form.



For the stock items, the system will record the actual values in the cost budget lines of the project when the items will be used for the project (that is, when the inventory issue with these items will be released).

Workflow of Purchasing Materials and Services for Projects

The following diagram illustrates the workflow of purchasing materials and services for projects using purchase orders.



Purchase of Materials and Services: Inventory Tracking by Warehouse Location

In Acumatica ERP, you can define a project so that specific project tasks are associated with warehouse locations. With this configuration, in the project cost budget, you can track materials and services purchased for the project. Based on the expenses recorded to the cost budget, you can later bill the customer. The ability to track items used for projects by warehouse location helps you to track the amount of money and resources spent on the project and to accurately estimate the project profitability.

Inventory Tracking by a Project-Specific Location

To track project items by warehouse location, you select **Track by Location** in the **Inventory Tracking** box on the **Summary** tab of the [Projects](#) (PM301000) form for a particular project. You then associate a separate warehouse

location with each project task for which you need to receive inventory items on the [Warehouses](#) (IN204000) form. With this configuration, the items purchased for the project are tracked at the warehouse location level.

For a purchase of project items, you create a purchase order on the [Purchase Orders](#) (PO301000) form. When the purchased materials are received to the warehouse location, you create a purchase receipt on the [Purchase Receipts](#) (PO302000) form and an accounts payable bill on the [Bills and Adjustments](#) (AP301000) form. If the **Internal Cost Commitment Tracking** check box is selected on the [Projects Preferences](#) (PM101000) form, these expenses are recorded to the project budget as project commitments. For more information about commitment tracking in projects, see [Tracking Cost Commitments](#).

Once the purchased project stock items are used for the project, you issue the items for the project from the warehouse location. The system updates the actual quantity and actual amount of the cost budget of the project with the quantities and cost of the issued items.

Limitations

The following limitations apply to the *Track by Location* inventory tracking mode of the project on the **Summary** tab of the [Projects](#) (PM301000) form:

- The purchased materials are not reserved for the project and can be sold and shipped for other projects and customers.
- If a warehouse location is associated with a particular project and project task, the system cannot issue the items from this location using the X non-project code. To issue the items stored in the project-specific warehouse location with the non-project code, you first need to transfer the items to a warehouse location that is not linked to any project task.
- The system does not track the project-specific cost of materials.

In projects with inventory tracked by location, the cost of the issued materials is not project-specific and is defined by general cost calculation rules. The cost of the item depends on the item valuation method, and is affected by other factors: the warehouse location from which the item is issued, the account and subaccount, the selected subitem, and the lot or serial number of the item. For more information on how the system calculates item costs, see [Item Costs and Valuation Methods: General Information](#).

Project Inventory Tracking by Warehouse Location: To Purchase Materials and Services for a Project

This activity will walk you through the process of purchasing materials and services to a project-specific warehouse location with a purchase order.

Story

Suppose that the HM's Bakery and Cafe customer has ordered two juicers, along with four hours of the installation service from the SweetLife Fruits & Jams company. The SweetLife company contracted the Squeezo Inc. vendor to provide the juicers and perform the installation. SweetLife's project manager has created the project.

Acting as SweetLife's purchasing manager, you will process the purchase of materials and services for the project. When the vendor delivers the juicers to company's warehouse, you will process a purchase receipt for the juicers. When the vendor provides the installation service, you will process an accounts payable bill from the vendor for the delivered juicers and provided service.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the following features have been enabled:

- *Project Accounting*, which provides support for the project accounting functionality
- *Inventory and Order Management*, which provides the purchase order functionality
- On the [Projects](#) (PM301000) form, the *HMBAKERY2* project has been created and the *INSTALL* project task has been created for the project. This task is the default project task.
- On the [Account Groups](#) (PM201000) form, the *SUBCON* account group has been created. The *54200 (Project Subcontract Expense)* account has been mapped to the *SUBCON* account group.
- On the [Warehouses](#) (IN204000) form, the *EQUIPHOUSE* warehouse has been created, and the *HMBAKERY2* location has been created for the *INSTALL* task of the *HMBAKERY2* project.
- On the [Vendors](#) (AP303000) form, the *SQUEEZO* vendor has been created.
- On the [Stock Items](#) (IN202500) form, the *JUICER10C* stock item has been defined.
- On the [Non-Stock Items](#) (IN202000) form, the *INSTALL* non-stock item has been defined. On the **General** tab, the **Require Receipt** check box has been cleared. On the **GL Accounts** tab, *54200 (Project Subcontract Expense)* has been selected in the **Expense Account** box. On the **Price/Cost** tab, *Purchase* is selected in the **Post Cost to Expenses On** box.

Process Overview

On the [Purchase Orders](#) (PO301000) form, you will create a purchase order for the project, specifying the project and project task. Then you will create a purchase receipt and release it on the [Purchase Receipts](#) (PO302000) form. You will bill the purchase order on the [Purchase Orders](#) form and then release the bill on the [Bills and Adjustments](#) (AP301000) form. Finally, you will review the project balances on the [Projects](#) (PM301000) form.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2025*. If a different date is displayed, click the Business Date menu button, and select *1/30/2025* on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Creating a Purchase Order for the Project

To create a purchase order for the project, do the following:

1. On the [Purchase Orders](#) (PO301000) form, create a new record.
2. In the Summary area, specify the following settings:
 - **Type:** *Normal*
 - **Vendor:** *SQUEEZO*
 - **Date:** *1/30/2025*
 - **Project:** *HMBAKERY2*
 - **Description:** Purchase for HM's Bakery & Cafe
3. On the **Details** tab, add two purchase order lines that have the settings shown in the following table.

Inventory ID	Order Qty.	Unit Cost	Cost Code
<i>JUICER10C</i>	2	1500	00-000
<i>INSTALL</i>	4	80	00-000

The system automatically inserts the *INSTALL* project task for each line when you select the *HMBAKERY2* project because this task is the default project task of the project. Also, in the line with the *JUICER10C* stock item, the *EQUIPHOUSE* warehouse is inserted automatically.

4. In the Summary area, make sure that the **Order Total** value, which is the sum of the **Ext. Cost** of two lines (3,000.00 and 320.00), is 3,320.00.
5. Save the purchase order.
6. On the form toolbar, click **Remove Hold**. The system assigns the purchase order the *Open* status.

Step 2: Receiving the Purchased Materials to a Warehouse

To create a purchase receipt for the purchased materials, do the following:

1. While remaining on the *Purchase Orders* (PO301000) form with the purchase order selected, on the form toolbar, click **Enter PO Receipt**.

The system creates a purchase receipt with the *Balanced* status for the *JUICER10C* item and opens it on the *Purchase Receipts* (PO302000) form. The service item (*INSTALL*) does not require a receipt and is not added to the created document.

2. On the form toolbar, click **Release**.

The system creates and releases an inventory receipt transaction based on the purchase receipt. On release of this transaction, the stock items are received to inventory. The purchase receipt is assigned the *Released* status.

Step 3: Creating a Bill for the Purchase Order

To bill the purchase order, do the following:

1. On the *Purchase Orders* (PO301000) form, open the purchase order that you have created earlier in this activity.
2. On the More menu (under **Processing**), click **Enter AP Bill** to create a bill for the purchase order.

The system creates an accounts payable bill and opens the bill on the *Bills and Adjustments* (AP301000) form. Make sure that both purchase order lines have been added to the bill.

3. On the form toolbar, click **Remove Hold** to assign the AP bill the *Balanced* status, and then click **Release**.
4. On the *Projects* (PM301000) form, open the *HMBAKERY2* project.

On the **Cost Budget** tab, review the actual values of the cost budget. Notice that the **Actual Quantity** and **Actual Amount** of the line with the *INSTALL* item have been updated and are now 4 and 320.00, respectively (see the following screenshot). The actual values for the line with the stock item (*JUICER10C*) are not updated yet: the system will record the cost of stock items to the project budget when the items are used for the project and issued from the project-specific warehouse location.

The screenshot shows the Acumatica ERP interface for a project named "HMBAKERY2 - Juicers with the installation". The "COST BUDGET" tab is selected. At the top, there are fields for Project ID (HMBAKERY2), Customer (HMBAKERY - HM's Bakery & Cafe), and Project Manager (EP0000001 - Pam Bawner). Below these are status and description fields. To the right, financial summary fields show Actual Income (0.00), Actual Expenses (320.00), Margin Amount (-320.00), Margin (%): 0.00, and Pending Invoice Amon... 0.00. The main area displays a table of transactions:

Project Task	Inventory ID	Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Actual Quantity	Actual Amount
INSTALL	JUICER10C	MATERIAL	Pro series citrus juicer with a ...	2.00	PIECE	1,500.0000	3,000.00	2.00	3,000.00	0.00	0.00
INSTALL	INSTALL	SUBCON	Installation of equipment at th...	4.00	HOUR	80.0000	320.00	4.00	320.00	4.00	320.00

Figure: Actual values of the budget updated by the purchase

You have completed the processing of the purchase of materials and services for the project.

Lesson 7: Purchasing Services for Projects

This lesson describes how to purchase services for projects by processing accounts payable bills.

Purchasing Services for Projects: General Information

In Acumatica ERP, you can purchase services for projects without using purchase orders, so that these purchases affect the cost budget of the projects. You can later bill the customer for the purchased services, based on the expenses recorded to the cost budget.

Learning Objectives

You will learn how to do the following:

- Enter the accounts payable bill for the project
- Specify the services to be purchased, and release the bill
- Review the project and GL transactions that are generated during the processing of a purchase

Applicable Scenarios

You process a purchase of services for a project by using accounts payable bills without processing purchase orders to update the actual values of the project budget with the cost of the purchased services. You may need this, for example, if the *Inventory and Order Management* group of features is not included in your license or if you want to simplify the process of purchasing services.

Purchasing of Services for Projects

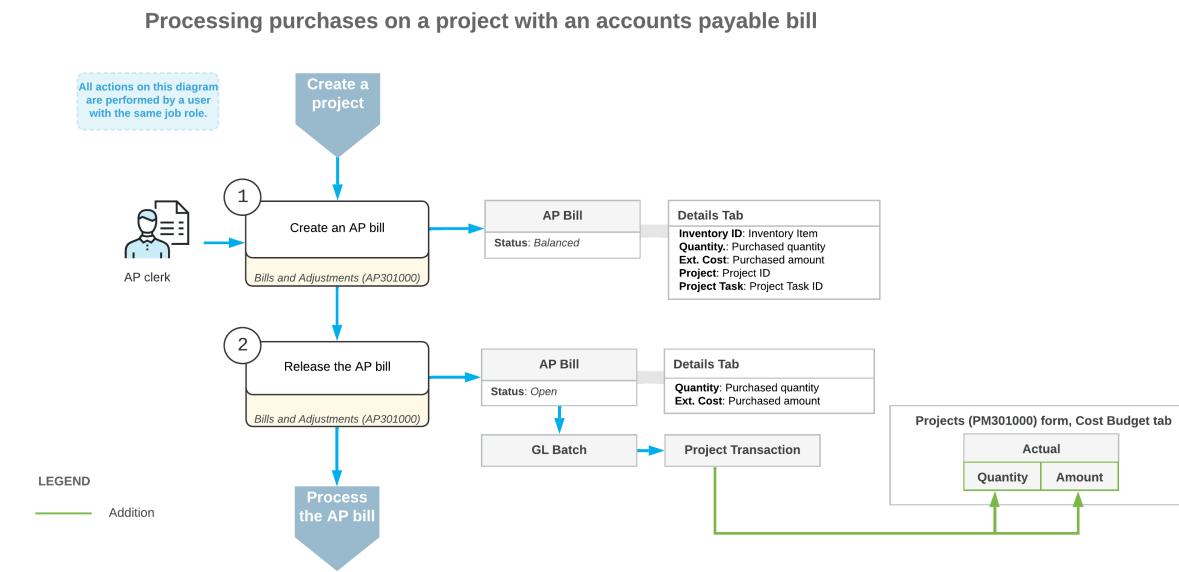
You purchase services—non-stock items that are configured so that the system does not require receipt for them—for projects using accounts payable bills. On the **Details** tab of the **Bills and Adjustments** (AP301000) form, you add a line for each non-stock item representing a service. To associate each bill line with a non-stock item with a project, you specify the project and project task.

When you release the accounts payable bill with lines related to a project, the system updates the budget lines of the project with the same project task, account group, and inventory item on the **Cost Budget** tab of the [Projects](#) (PM301000) form. The system updates the **Actual Quantity** and **Actual Amount** of these cost budget lines with the billed quantity and amount.

For more information on processing accounts payable bills, see [AP Bills: General Information](#).

Workflow of Purchasing Services for Projects

The following diagram illustrates the workflow of purchasing services for projects using accounts payable bills.



Purchasing Services for Projects: Process Activity

This activity will walk you through the process of purchasing services for a project from a subcontractor with accounts payable bills.

Story

Suppose that the HM's Bakery and Cafe customer has ordered the installation service for previously bought juicers from the SweetLife Fruits & Jams company. The SweetLife company has contracted the Squeezo Inc. vendor to provide six hours of the installation service. SweetLife's project manager has created the project. To simplify the process of purchasing services, SweetLife's AP clerk has decided to skip the entering of a purchase order for the purchase. Acting as SweetLife's AP clerk, you will process the project-related purchase by using an accounts payable bill.

Configuration Overview

In the U100 dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Projects](#) (PM301000) form, the *HMBAKERY14* project has been created, and the *INSTALL* project task has been created for the project. This task is the default project task.

- On the [Non-Stock Items](#) (IN202000) form, the *INSTALL* non-stock item of the Service type has been defined. On the **General** tab (**Item Defaults** section), the **Require Receipt** check box has been cleared. On the **Price/Cost** tab (**Standard Cost** section), the **Current Cost** of the item has been set to 80.00. On the **GL Accounts** tab, the 54200 (*Project Subcontract Expense*) account has been selected in the **Expense Account** box.
- On the [Account Groups](#) (PM201000) form, the *SUBCON* account group has been created, and the 54200 (*Project Subcontract Expense*) account has been mapped to the account group.
- On the [Vendors](#) (AP303000) form, the *SQUEEZO* vendor has been created.

Process Overview

You will create a bill on the [Bills and Adjustments](#) (AP301000) form, and specify the project and project task in the bill lines. Then you will release the bill. Finally, you will review the project balances on the [Projects](#) (PM301000) form.

Step: Creating a Bill for the Project

To create an accounts payable bill for the project, do the following:

- On the [Bills and Adjustments](#) (AP301000) form, add a new record.
- In the Summary area, specify the following settings:
 - Vendor:** SQUEEZO
 - Date:** 1/30/2025
 - Description:** Services for HM's Bakery & Cafe
- On the **Details** tab, click **Add Row** on the table toolbar, and add a row with the following settings:
 - Inventory ID:** INSTALL
 - Quantity:** 6
 - Project:** HMBAKERY14
 - Project Task:** INSTALL (selected by default)
 - Cost Code:** 00-000

The system selects 54200 (*Project Subcontract Expense*) as the **Account** of the bill line, because this is the expense account of the selected item.
- On the form toolbar, click **Remove Hold** to assign the bill the *Balanced* status, and then click **Release** to release the bill.
- Open the [Project Transaction Details](#) (PM401000) form.
- In the Selection area of the form, select *HMBAKERY14* as the **Project**, and make sure the **Account Group** and **Project Task** boxes are cleared. Review the project transaction that has updated the actual values in the budget line. The debit account group in the transaction (*SUBCON*) is the group that is mapped to the 54200 expense account of the *INSTALL* non-stock item specified in the line.
- On the [Projects](#) (PM301000) form, open the *HMBAKERY14* project, and review the cost budget on the **Cost Budget** tab. Notice that the **Actual Quantity** and **Actual Amount** of the corresponding budget line have been updated (to 6 and 480.00, respectively), as shown in the following screenshot.

The screenshot shows the Microsoft Dynamics 365 Project Management interface. The top navigation bar includes 'NOTES', 'FILES', and 'TOC'. The main header displays 'Projects' and the project name 'HMBAKERY14 - The installation of juicers'. Below the header are various project details like Project ID, Customer, and Status. The 'COST BUDGET' tab is selected. A table lists tasks with columns for Project Task, Inventory ID, Account Group, Description, Original Budgeted Quantity, UOM, Unit Rate, Original Budgeted Amount, Revised Budgeted Quantity, Revised Budgeted Amount, Actual Quantity, and Actual Amount. The 'Actual Quantity' and 'Actual Amount' columns for the 'INSTALL' task are highlighted with a red border.

* Project Task	* Inventory ID	* Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Actual Quantity	Actual Amount
> 0 D INSTALL	INSTALL	SUBCON	Installation of equipment at th...	6.00	HOUR	80.0000	480.00	6.00	480.00	6.00	480.00

Figure: Cost budget updated after bill processing

You have completed the processing of the purchase of services for the project and captured the cost of services to the project budget.

Part 3: Project Billing

The lessons of this part explain how you can configure billing for projects with direct AR invoices or pro forma invoices, and how to bill projects by progress and by time and material.

Lesson 8: Billing Projects with the Direct Creation of AR Invoices

You bill a project with the direct creation of accounts receivable invoices if you do not want to use pro forma invoice capabilities because you expect that you will not need to modify the invoices.

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure the direct creation of AR documents for the project
- Bill the project with the direct creation of an AR invoice

Billing with a Direct AR Invoice: General Information

In Acumatica ERP, you run project billing to automatically generate customer invoices based on the accounting data related to the projects.

Learning Objectives

In this lesson, you will learn how to do the following:

- Select the type of the document to be prepared
- Make sure that the project is ready to be billed
- Configure the direct creation of AR documents for the project
- Bill the project with the direct creation of an AR invoice

Applicable Scenarios

For each project, you decide which type of the project invoice is prepared during project billing. Once a project is ready to be billed, you run the project billing procedure.

Project Invoice Workflow

The type of the document that the system will generate during the project billing procedure depends on the state of the **Create Pro Forma Invoice on Billing** check box on the **Summary** tab of the [Projects](#) (PM301000) form:

- If the check box is selected, the system creates a pro forma invoice and opens it on the [Pro Forma Invoices](#) (PM307000) form. For more information, see [Pro Forma Invoices: General Information](#).
- If the check box is cleared, the system creates an accounts receivable invoice or credit memo and opens it on the [Invoices and Memos](#) (AR301000) form. For more information about billing projects with credit memos, see [Project Invoice Correction: Credit Memos for Projects](#).

The date of the created document is the **Next Billing Date** specified for the project on the **Summary** tab (**Billing and Allocation Settings** section). If *On Demand* is specified as the billing period of the project (in the same section of this tab), the date of the prepared invoice is the current business date.

Billing Process Preparation

The billing procedure in Acumatica ERP is straightforward and depends on the type of the step of the billing rule that is specified for each project task on the **Tasks** tab of the [Projects](#) (PM301000) form as follows:

- For the *Time and Material* steps of the billing rules, the system selects all the project transactions and generates an invoice for the customer based on these transactions and the billing rule.
- For the *Progress Billing* steps of the billing rules of project tasks, the system generates an invoice with the billable project revenue.

For the billing process for a project to be run successfully, the project must meet the following criteria:

- The project is an external project (that is, a project associated with a customer).
- The project status should be *Active*, *Completed*, or *Suspended*.
- The status of the project tasks should be *Active* or *Completed*, and a billing rule should be specified for these tasks.
- The project should have a basis for billing, such as a billable line of the revenue budget associated with the task for progress billing, or an unbilled project transaction associated with the task within this billing period for time and material billing.
- The steps of the billing rule should be applicable to the billing basis. For example, the billing rule of a task that is supposed to be billed by a revenue budget line should have a *Progress Billing* step.
- The rate table must be specified for a project task if the related billing rule contains the @Rate parameter.
- Sales prices must be configured for non-stock items if the related billing rule contains the @Price parameter.

Projects Pending Billing

You run the project billing procedure for a project that is pending billing by opening the project on the [Projects](#) (PM301000) form and clicking **Run Billing** on the form toolbar. The billing procedure can be run only for a project that is pending billing—that is, only if at least one of the following exists for the project:

- A revenue budget line billed by amount with a nonzero **Pending Invoice Amount** on the **Revenue Budget** tab of the [Projects](#) form; the amount may be positive or negative.
- A revenue budget line billed by quantity with a nonzero **Pending Invoice Quantity** on the **Revenue Budget** tab of the [Projects](#) form.
- A revenue budget line with a **Pending Invoice Quantity** of 0 on the **Revenue Budget** tab of the [Projects](#) form if the corresponding billing rule has the **Create Lines with Zero Amount and Quantity** check box selected in the progress billing step on the [Billing Rules](#) (PM207000) form. (With this check box selected, the system performs billing for all revenue budget lines, including those that have pending values of 0).
- An amount postponed to the next billing from a pro forma invoice on the [Pro Forma Invoices](#) (PM307000) form for which the corresponding accounts receivable invoice is released.
- A project task for which a recurring billing item is defined on the **Recurring Billing** tab of the [Project Tasks](#) (PM302000) form. For more information, see [Project Billing Preparation: Recurring Billing](#).
- An unbilled project transaction that is ready to be billed on the invoice date—that is, the date of the transaction is not later than the invoice date. Transactions with a date the same as the invoice date are billed if *Include Transactions with Billing Date* is selected in the **Billing Cutoff** box on the [Projects Preferences](#) (PM101000) form; if *Include Only Transactions Before Billing Date* is selected, the system skips the transactions with a date on the billing date.

The invoice date is for all the projects except those that are billed on demand is the **Next Billing Date** on the [Projects](#) form (in the **Billing and Allocation Settings** section of the **Summary** tab); for the projects that are

billed on demand (that is, for which the **Billing Period**, which is specified in the same section of the form, is *On Demand*), the invoice date is the business date.

You can also run billing for multiple projects on the [Run Project Billing](#) (PM503000) form. For more information, see [Project Billing Preparation: Mass Processing](#).

Billing with the Direct AR Invoice: To Create a Cost-Plus Project

This activity will walk you through the process of configuring a simple cost-plus project from its initial creation.

Story

Suppose that the Lake Cafe customer has contacted the SweetLife Fruits & Jams company and ordered training of its employees on operating the juicer it purchased from SweetLife. The training sessions will start on 1/1/2025 and must be completed by 1/30/2025. The project accountant has analyzed the requirements and decided to create a small cost-plus project (with only a single task for the training of employees); the expected project profitability is 20%. Because the number of training sessions may be changed during the project completion by the customer's request, the project will be billed when all training sessions have been provided. The project accountant has decided to skip the creation of pro forma invoices, because the price of the provided services has already been agreed upon with the customer.

Acting as the project accountant, you will create the new project and specify the needed settings.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Non-Stock Items](#) (IN202000) form, the *TRAINING* non-stock item has been defined.
- On the [Billing Rules](#) (PM207000) form, the *TM* billing rule has been defined to calculate the line amount as the project transaction line amount multiplied by 1.25.
- On the [Account Groups](#) (PM201000) form, the *LABOR* account group has been defined.

Process Overview

On the [Projects](#) (PM301000) form, you will create a new project and specify its general settings on the **Summary** tab. Then on the **Tasks** tab, you will add the project task that will be performed during the completion of the project. On the **Cost Budget** tab, you will define the budget for the project.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/1/2025. If a different date is displayed, click the Business Date menu button, and select 1/1/2025 on the calendar.

Step 1: Creating a Project and Specifying Its General Settings

To create a new project and specify basic settings for it, do the following:

1. On the [Projects](#) (PM301000) form, add a new record.
2. In the Summary area, specify the following settings:
 - **Project ID:** INSTLAKE02

- **Customer:** LAKECAFE (Lake Cafe)
- **Project Manager:** EP00000001 (Pam Brawner)
- **Description:** Training project for Lake Cafe

3. On the **Summary** tab, specify the following settings:

- **Revenue Budget Level:** *Task and Item*

You select this option to include more detail in the revenue budget structure. With this setting, you will be able to select an inventory item in a revenue budget line.

- **Cost Budget Level:** *Task and Item*

You select this option to include more detail in the cost budget structure. With this setting, you will be able to select an inventory item in a cost budget line.

- **Start Date:** 1/1/2025

- **End Date:** 1/30/2025

- **Change Order Workflow:** Cleared

You clear this check box because for this simple cost-plus project, no changes will be required.

- **Billing Currency:** USD (selected automatically)

- **Billing Period:** *On Demand*

You select the *On Demand* billing period to indicate that the billing can be performed at any time.

- **Billing Rule:** TM

This predefined rule will be specified by default in all project tasks added to the project.



For details on configuring a billing rule for billing by time and material, see [Billing Rules: Time and Material Billing](#) and [Time and Material Billing: To Configure a Time and Material Rule](#).

- **Create Pro Forma Invoice on Billing:** Cleared

You are clearing this check box because you want to create accounts receivable invoices when you bill the project without preliminary creation of pro forma invoices.

4. Save your changes to the project (which currently has the *In Planning* status in the **Status** box of the Summary area).

Step 2: Adding Project Tasks

To add project tasks to the project, do the following:

1. On the **Tasks** tab, click **Add Row** on the table toolbar, and add the project task with the following settings:

- **Task ID:** TRAINING
- **Type:** *Cost and Revenue Task*
- **Description:** Training on juicer usage
- **Status:** Active

Notice that the *TM* billing rule has been automatically specified for the task.

2. Save your changes to the project.

Step 3: Specifying the Project's Cost Budget

To configure the project's cost budget, do the following:

1. On the **Cost Budget** tab, click **Add Row**, and specify the following settings in the added row:

- **Project Task:** TRAINING
- **Inventory ID:** TRAINING

- **Account Group:** LABOR (selected automatically)
- **Original Budgeted Quantity:** 16
- **UOM:** HOUR
- **Unit Rate:** 40

The system automatically calculates the **Original Budgeted Amount** for the cost budget line (\$640) as the **Original Budgeted Quantity** multiplied by the **Unit Rate**.

2. Save your changes to the project.

You have not configured the revenue budget for the project because you have not agreed with the customer on the number of training sessions and this number may be changed during the project completion at the customer's request. When you bill the project based on the incurred expenses, the system automatically populates the revenue budget with the actual values.

You have finished configuring the project.

Billing with the Direct AR Invoice: To Process a Cost-Plus Project

This activity will walk you through the life cycle of a cost-plus project.

Story

Suppose that the Lake Cafe customer has ordered training of employees from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a cost-plus project to account for the provided services. Twenty hours of training sessions have been conducted in the period from 1/1/2025 through 1/30/2025.

Acting as the project accountant, you need to support the project during the entire project life cycle.

Configuration Overview

For the purposes of this activity, on the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.

Process Overview

You will activate the project to indicate that it has been started. Then you will create project-related transactions on the [Project Transactions](#) (PM304000) form to record the provided services. You will run project billing for the project on the [Projects](#) (PM301000) form and review the prepared AR invoice. Then you will complete the project, and review the profitability report on the [Project Profitability](#) (PM624000) report form.

System Preparation

To prepare to perform the instructions of the activity, do the following:

1. Download the INSTLAKE02_Project_Transactions file provided with the course to your computer.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is displayed, click the Business Date menu button and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Activating the Project

To indicate that the *INSTLAKE02* project has been started, do the following:

1. On the [Projects](#) (PM301000) form, open the *INSTLAKE02* project, which you have created in [Billing with the Direct AR Invoice: To Create a Cost-Plus Project](#).
2. On the form toolbar, click **Activate**. The system assigns the project the *Active* status.

Step 2: Uploading Project Transactions

To upload and process the transactions of this project, do the following:

1. On the [Project Transactions](#) (PM304000) form, add a new record.
2. In the Summary area, make sure that **PM** is selected as the **Module**.
3. In the **Description** box, type The conducted training for the *INSTLAKE02* project.
4. On the table toolbar of the **Details** tab, click **Load Records from File**.
5. In the **File Upload** dialog box, which opens, click **Choose File**, select the file path to the *INSTLAKE02_Project_Transactions* file, and click **Upload**.
6. In the **Common Settings** dialog box, which opens, leave the default settings, and click **OK**.
7. In the **Columns** dialog box, which opens, leave the current column mapping, and click **OK**. The system uploads the transaction row.
8. Make sure that the **Total Quantity** and **Total Amount** in the Summary area are 20 and 800.00, respectively.
9. On the form toolbar, click **Save**, and then click **Release**.
10. On the [Projects](#) (PM301000) form, open the *INSTLAKE02* project, and make sure that the **Actual Expenses** box in the Summary area now shows 800.00.

On the **Cost Budget** tab, review the cost budget line that has been updated on release of the project transaction. The quantity and amount that were initially planned (16 and 640.00) are shown as the **Original Budgeted Quantity** and **Original Budgeted Amount**, while the **Actual Quantity** and **Actual Amount** columns have been populated with the amounts from the released project transactions (20 and 800, respectively).

Step 3: Billing a Project

To create an accounts receivable invoice for the project, do the following:

1. While you are still reviewing the *INSTLAKE02* project on the [Projects](#) (PM301000) form, on the form toolbar, click **Run Billing**. The system creates an AR invoice, which should look like the one shown in the following screenshot, and opens it on the [Invoices and Memos](#) (AR301000) form.

Because the **TM** billing rule specified for the project task defines the line amount as the project transaction amount multiplied by 1.25, the customer is billed in the amount of \$1,000.

Inventory ID	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Amount	* Account
TRAINING	Training on juicer usage (at customer's place)	20.00	HOUR	50.0000	1,000.00	0.000000	0.00	1,000.00	40000

Figure: The AR invoice created during the billing

- On the form toolbar, click **Remove Hold** to assign the accounts receivable invoice the *Balanced* status, and then click **Release**.
- Return to the [Projects](#) form with the *INSTLAKE02* project opened, and press Esc to refresh the form. Notice that the **Actual Income** box in the Summary area now shows *1,000.00*, which is the amount the customer has been billed. The calculated margin for the project is 20%, as has been planned. On the **Revenue Budget** tab, the revenue line with the *TRAINING* task and the **Actual Amount** of \$1,000 has been added.

Step 4: Completing the Project

To complete the project, do the following:

- While you are still reviewing the *INSTLAKE02* project on the [Projects](#) (PM301000) form, on the **Tasks** tab, specify the following settings in the only table row:
 - Status:** *Completed*
 - Completed (%):** 100 (the system specifies this percentage automatically when you change the task's status to *Completed*)
 - End Date:** *1/30/2025* (the system specifies the current business date automatically when you change the task's status to *Completed*)
- Save your changes to the project.
- On the form toolbar, click **Complete**. The system assigns the project the *Completed* status.

You have finished working with the project.

Lesson 9: Billing Projects with Pro Forma Invoices

By default, Acumatica ERP provides pro forma invoice capabilities for each newly created project. That gives you the ability to edit and correct pro forma invoices before creating AR documents without affecting the accounts receivable subledger.

Pro Forma Invoices: General Information

Acumatica ERP provides pro forma (draft) invoice capabilities for project billing. A pro forma invoice, which you can view on the [Pro Forma Invoices](#) (PM307000) form, is a draft document that you can edit and correct without affecting the accounts receivable subledger. A pro forma invoice can be printed and sent to a customer as many times as is necessary until an agreement is reached. With this process, you minimize corrections that directly affect the accounts receivable subledger.

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure the pro forma invoice workflow for a project
- Create a pro forma invoice during project billing
- Print the pro forma invoice
- Send the pro forma invoice as an email
- Create an accounts receivable invoice based on a pro forma invoice

Applicable Scenarios

You create a pro forma invoice for a project if you need to reach agreement with the customer about the invoice. During negotiations, you modify the pro forma invoice as many times as is necessary until an agreement is reached, and then you prepare the accounts receivable invoice based on this pro forma invoice.

Enabling of the Pro Forma Invoice Workflow for a Project

A pro forma invoice is a document that can be created through the process of billing a particular project. The system creates pro forma invoices during billing for the projects for which the pro forma invoice workflow is turned on—that is, the projects that have the **Create Pro Forma Invoice on Billing** check box selected on the **Summary** tab of the [Projects](#) (PM301000) form. By selecting or clearing this check box, you can turn on or turn off the pro forma invoice workflow for a project at any stage of the project execution.



You can also manually enter new pro forma invoices on the [Pro Forma Invoices](#) (PM307000) form. For more information, see [Pro Forma Invoices: Manual Creation of Pro Forma Invoices](#).

Creation of Pro Forma Invoices

The system creates a pro forma invoice when you run project billing by clicking **Run Billing** on the form toolbar of the [Projects](#) (PM301000) form. For a pro forma invoice created for a project, the system creates billable lines on the following tabs of the [Pro Forma Invoices](#) (PM307000) form:

- **Progress Billing:** The system creates these lines by using the *Progress Billing* steps of billing rules. The lines originate from the revenue budget lines of the project with a nonzero pending invoice amount or quantity.
- **Time and Material:** The system creates these lines by using the *Time and Material* steps of billing rules; the lines originate from the project transactions.

The *Time and Material* steps of billing rules support the aggregation of project transactions by date, employee, vendor, and inventory item. On the **Time and Material** tab of the [Pro Forma Invoices](#) form, you can select a line and then click **View Transaction Details** on the table toolbar to drill down to the list of project transactions based on which the **Billed Quantity** and **Billed Amount** of the line have been calculated by using the formula of the billing rule.



If the **Construction** feature is in use, you may need to prepare the American Institute of Architects (AIA) report that includes time and material amounts from the prepared pro forma invoice. For more information, see [Construction Reports: Time and Material Amounts in AIA Reports](#).

As a result of the creation of the pro forma invoice, the system updates the revenue budget of the project on the **Revenue Budget** tab of the [Projects](#) form as follows:

- In the lines billed by amount, the system clears the amounts in the **Pending Invoice Amount** column, which the system has used to create progress billing lines of the pro forma invoice.
- In the lines billed by quantity, the system clears the quantities in the **Pending Invoice Quantity** column and the amounts in the **Pending Invoice Amount** column, which the system has used to create progress billing lines of the pro forma invoice.
- The amounts in the **Draft Invoice Amount** column are increased with the amount to invoice of the corresponding progress billing lines and time and material lines of the pro forma invoice.
- The quantities in the **Draft Invoice Quantity** column are increased with the quantity to invoice of the corresponding progress billing lines of the pro forma invoice that have been billed based on quantity.

A pro forma invoice with any status can be printed and emailed to the customer. To print the pro forma invoice, you click **Print** on the More menu of the [Pro Forma Invoices](#) form. To email the pro forma invoice, you click **Email** on the More menu of the form.

Release of Pro Forma Invoices

The pro forma invoices of a project can be released according to the following rules:

- The pro forma invoices can be released only one by one, starting from the earliest one, on the **Invoices** tab of the [Projects](#) (PM301000) form. The only exception is when multiple pro forma invoices segregated by invoice group have been generated during a single iteration of the billing process; in this case, these pro forma invoices can be released in any order.
- A pro forma invoice can be released only after the accounts receivable invoice of the preceding pro forma invoice has been released.

The release of a pro forma invoice does not produce project transactions or general ledger transactions directly. When you release the pro forma invoice on the [Pro Forma Invoices](#) (PM307000) form, the system creates a corresponding accounts receivable invoice or credit memo with all information copied from the pro forma invoice. The system copies the **Amount to Invoice** values from the pro forma invoice lines on the **Progress Billing** and **Time and Material** tabs of the [Pro Forma Invoices](#) form to the **Amount** column in the invoice lines on the **Details** tab on the [Invoices and Memos](#) (AR301000) form.



The system creates a credit memo on release of the pro forma invoice if the total amount of the pro forma invoice is negative. For more information, see [Project Invoice Correction: Credit Memos for Projects](#).

The document lines of an unreleased accounts receivable invoice that originates from a pro forma invoice are displayed in read-only mode on the **Details** tab of the [Invoices and Memos](#) form. You can edit only a salesperson in the **Salesperson ID** column. If you need to correct any other details, you can delete the accounts receivable invoice, adjust the pro forma invoice on the [Pro Forma Invoices](#) form, and release the pro forma invoice to make the system generate the adjusted accounts receivable invoice.



To open a pro forma invoice that corresponds to an accounts receivable invoice you are viewing on the [Invoices and Memos](#) form, click **Pro Forma Invoice** on the More menu (under **Related Documents**).

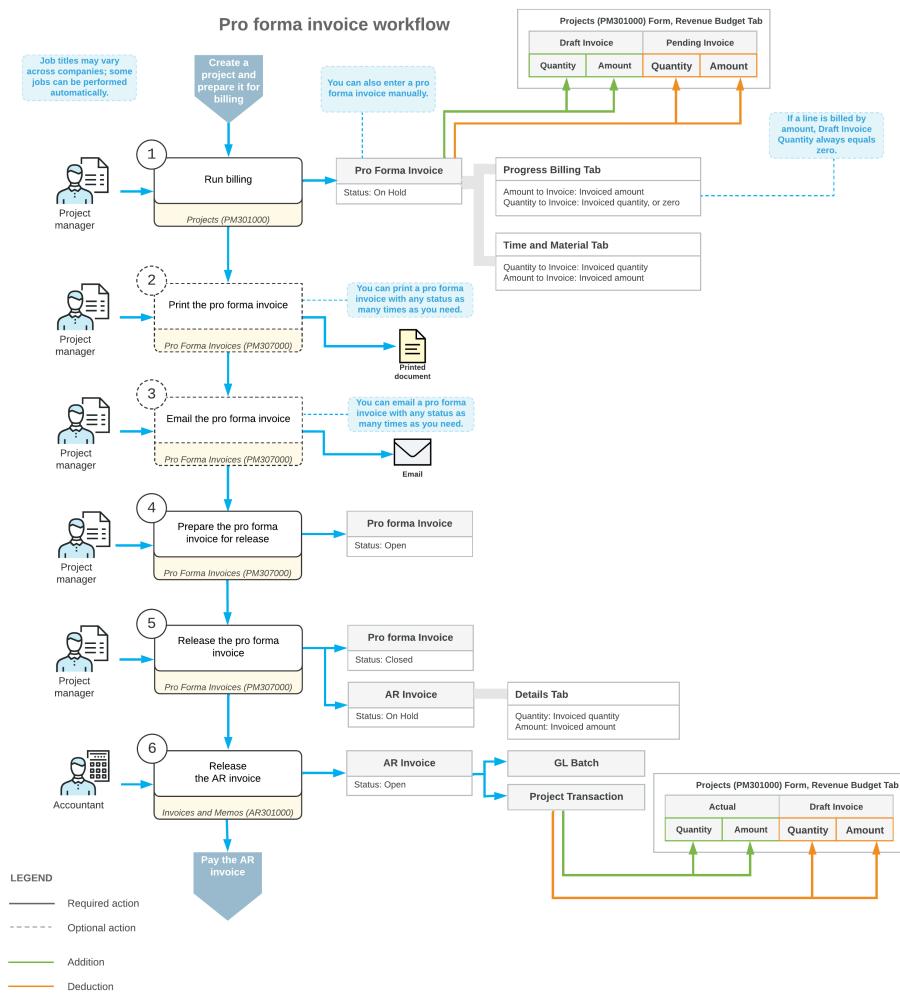
After you have reviewed the invoice details, you click **Release** on the form toolbar of the [Invoices and Memos](#) form to release the accounts receivable invoice. On release of the accounts receivable invoice, the system generates a

general ledger transaction and the corresponding project transaction. On release of the project transaction, the system updates the revenue budget of the corresponding project on the **Revenue Budget** tab of the *Projects* form as follows:

- The **Actual Quantity** and **Actual Amount** of the corresponding revenue budget line are increased by the line quantity and line amount of the released accounts receivable invoice.
- The **Draft Invoice Amount** and **Draft Invoice Quantity** of the corresponding revenue budget line is decreased by the line amount and line quantity of the released accounts receivable invoice, respectively.

Workflow of Pro Forma Invoices

The following diagram illustrates the workflow of processing a pro forma invoice.



Pro Forma Invoices: To Process a Pro Forma Invoice for a Project

In this activity, you will learn about the workflow of a pro forma invoice that has been prepared for a project.

Story

Suppose that the HM's Bakery and Cafe customer has ordered juicers from the SweetLife Fruits & Jams company, along with the following services: site review, installation, and employee training on operating the juicers. SweetLife's project accountant has created a project that should be billed on demand as the juicers are installed

and all the services are provided. Before the invoice is sent to the customer for payment, the customer has requested a pro forma invoice to be submitted for acceptance. The site review has taken place, the juicers have been delivered and installed, and SweetLife's consultant has provided the training. After that, the project accountant has entered project transactions and updated the progress of the project.

Acting as the project accountant, you will bill the customer, print the pro forma invoice, and email the invoice to the customer for approval on 1/30/2025. Then you will release the pro forma invoice and the associated accounts receivable invoice.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the *Enable/Disable Features* (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the *Projects* (PM301000) form, the *HMBAKERY5* project has been created and the *PHASE1*, *PHASE2*, *PHASE3*, *PHASE4*, and *PHASE5* project tasks have been created for the project. The revenue budget level of the project is *Task and Item*. On the **Summary** tab (**Billing and Allocation Settings** section), the **Create Pro Forma Invoice on Billing** check box has been selected for the project. With this setting, the system creates a pro forma invoice for the project when you run project billing.
- On the *Project Transactions* (PM304000) form, the *PM00000008* batch of project transactions related to the project has been created and released.

Process Overview

On the *Projects* (PM301000) form, you will initiate the creation of a pro forma invoice for the project. Then you will review the created pro forma invoice on the *Pro Forma Invoices* (PM307000) form. You will then print the pro forma invoice, email the invoice, and release it on the same form. On the *Invoices and Memos* (AR301000) form, you will release the accounts receivable invoice created based on the pro forma invoice.

System Preparation

To prepare to perform the instructions of the activity, do the following:

- In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is displayed, click the Business Date menu button and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.
- On the *Projects Preferences* (PM101000) form, on the **General** tab (**General Settings** section), make sure *Detailed* is selected in the **Revenue Budget Update** box.

Step 1: Creating and Processing a Pro Forma Invoice

To prepare and process a pro forma invoice for the project, do the following:

- On the *Projects* (PM301000) form, open the *HMBAKERY5* project. On the **Cost Budget** tab, review the cost budget of the project. Notice that the **Actual Amount** of each line equals the original budgeted amount, which means the corresponding project transaction has been created and released.



You can review the transactions that correspond to each cost budget line on the *Project Transaction Details* (PM401000) form, which opens if you click the line and then click **View Transactions** on the table toolbar. The transactions have the **Billable** check box selected and the **Billed** check box cleared, which means the transactions are ready for billing and have not been billed yet.

2. On the **Revenue Budget** tab, review the revenue budget lines of the project, and make sure that the **Pending Invoice Amount** of the revenue budget lines is nonzero. In the table selection area, notice that the **Pending Invoice Amount Total** is equal to 2,700.00. You can bill the project for this amount.

3. On the form toolbar, click **Run Billing**.

The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form.

4. On the **Progress Billing** tab, make sure that the pro forma invoice includes five progress lines. Review the invoice lines that have been created based on the revenue budget lines of the project. The **Progress Billing Total** in the Summary area is 2,700.00.
5. In the Summary area, right of the **Project** box, click the Edit button to review how the creation of the pro forma invoice has affected the revenue budget of the project. The system opens the *Projects* form with the HMBAKERY5 project selected.

On the **Revenue Budget** tab, notice that amounts from the **Pending Invoice Amount** column have been moved to the **Draft Invoice Amount** column, and now the **Pending Invoice Amount** of all the revenue budget lines is zero. In the table selection area, notice that the **Pending Invoice Amount Total** is also equal to zero.

6. Return to the *Pro Forma Invoices* form with the pro forma invoice that you have prepared earlier.
7. On the **Time and Material** tab, make sure that the pro forma invoice includes three time and material lines that have been created based on the transactions prepared for billing. The **Time and Material Total** in the Summary area must be 7,750.00.



You can review the transactions that correspond to each line in the **Transaction Details** dialog box, which opens if you click the line and then click **View Transaction Details** on the table toolbar.

8. On the More menu, click **Print** to generate the printable version of the pro forma invoice. The system navigates to the *Pro Forma Invoice* (PM642000) report and opens the printable version of the pro forma invoice.
 9. Click Back in the browser window to go back to the pro forma invoice on the *Pro Forma Invoices* form, and on the More menu, click **Email** to send the invoice as an email to the customer.
- The system creates an email by using the notification template defined for the project on the **Mailing & Printing** tab of the *Projects* form, attaches the printed report, and sends the email to the customer by using the email address specified in the **Bill-To Contact** section on the **Addresses** tab of the *Pro Forma Invoices* form, which is copied from the project from the **Bill-To** section on the **Addresses** tab of the *Projects* form.
10. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status.
 11. On the form toolbar, click **Release**. The system creates the accounts receivable invoice based on the pro forma invoice and assigns the *Closed* status to the pro forma invoice.

Step 2: Processing an AR Invoice

To process the accounts receivable invoice that was generated based on the pro forma invoice, do the following:

1. While you are viewing the pro forma invoice on the *Pro Forma Invoices* (PM307000) form, on the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that was created.
2. On the *Invoices and Memos* (AR301000) form, which opens, notice that all progress billing and time and material lines of the pro forma invoice have been copied to the **Details** tab of the accounts receivable invoice, as the following screenshot illustrates. The settings in these lines cannot be edited, except in the **Salesperson ID** column.

The screenshot shows the 'Invoices and Memos' form for invoice 000121. The top section displays general invoice details: Type: Invoice, Customer: HMBAKER Y - HM's Bakery & Cafe, Status: On Hold, Date: 1/30/2025, Post Period: 01-2025, and Project: HMBAKER Y5 - Juicers with the installation. The bottom section shows a grid of transaction lines. One line, 'Site review', is highlighted with a red box.

Inventory ID	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Amount	Account	Description	Project Task	Cost Code
SITEREVIEW	Site review	0.00	HOUR	50.0000	200.00	0.000000	0.00	200.00	40000	Sales Revenue	PHASE1	00-000
INSTALL	Installation of equipment at the customers' ...	0.00	HOUR	100.0000	300.00	0.000000	0.00	300.00	40000	Sales Revenue	PHASE2	00-000
INSTALL	Installation of equipment at the customers' ...	0.00	HOUR	100.0000	400.00	0.000000	0.00	400.00	40000	Sales Revenue	PHASE3	00-000
INSTALL	Installation of equipment at the customers' ...	0.00	HOUR	100.0000	600.00	0.000000	0.00	600.00	40000	Sales Revenue	PHASE4	00-000
TRAINING	Training on juicer usage (at customer's place)	0.00	HOUR	50.0000	1,200.00	0.000000	0.00	1,200.00	40000	Sales Revenue	PHASE5	00-000
JUICER10	Pro series juicer with a production rate of 1...	1.00	PIECE	1,500.0000	1,500.00	0.000000	0.00	1,500.00	40000	Sales Revenue	PHASE2	00-000
JUICER15	Commercial juicer with a production rate of ...	1.00	PIECE	2,500.0000	2,500.00	0.000000	0.00	2,500.00	40000	Sales Revenue	PHASE3	00-000
JUICER20C	Commercial citrus juicer with a production r...	1.00	PIECE	3,750.0000	3,750.00	0.000000	0.00	3,750.00	40000	Sales Revenue	PHASE4	00-000

Figure: The AR invoice prepared based on the pro forma invoice

- On the form toolbar, click **Remove Hold** to assign the accounts receivable invoice the *Balanced* status, and then click **Release**.
 - On the **Financial** tab, click the link in the **Batch Nbr.** box. On the *Journal Transactions* (GL301000) form, which opens, review the created general ledger transactions.
- Notice that eight transaction lines have the project and project task specified. For these GL transactions, the system created the corresponding project transactions. For the transactions with the X project specified (the non-project code), the system created no project transactions.
- Return to the accounts receivable invoice that you have prepared on the *Invoices and Memos* form.
 - On the More menu (under **Inquiries**), click **Project Transactions** to review the corresponding project transactions.
 - On the *Project Transaction Details* (PM401000) form, which opens, review the project transactions related to the AR invoice. Notice that eight transactions have *AR Invoice* in the **Orig. Doc. Type** column and the reference number of the accounts receivable invoice you have released in the **Orig. Doc. Nbr.** column. These transactions also have the reference number of the general ledger batch you have just reviewed in the **GL Batch Nbr.** column.
 - On the *Projects* form, open the HMBAKER Y5 project, and review the **Invoices** tab. Notice that in the only line, the reference numbers of the prepared pro forma invoice and the corresponding accounts receivable invoice are shown in the **Pro Forma Reference Nbr.** and **AR Reference Nbr.** columns, respectively. The total billed amount in the **AR Doc. Orig. Amount** column is \$10,450.
 - On the **Revenue Budget** tab, make sure the **Actual Amount** of revenue budget lines was updated on release of the AR invoice. Also, make sure that the following new revenue budget lines have been created based on the billed project transactions:
 - The line with the PHASE2 project task and the JUICER10 inventory item
 - The line with the PHASE3 project task and the JUICER15 inventory item
 - The line with the PHASE4 project task and the JUICER20C inventory item
- Notice that the lines now have actual values and that the original budgeted values in these lines are 0.

You have finished processing the pro forma invoice and the AR invoice for the project.

Lesson 10: Billing Projects for Progress

You run billing for the project to prepare an invoice for the customer. You can bill the customer based on the current progress of the project.

Progress Billing: General Information

With progress billing in Acumatica ERP, you run project billing to automatically generate project invoices based on the progress recorded for the project.

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure a progress billing rule
- Update the project progress to make it ready to be billed
- Run project billing for a project
- Process the documents that have been generated during the project billing
- Review how the project's actual amounts are updated with the billed amounts

Applicable Scenarios

You run project billing to prepare an invoice for the customer based on the current progress of the project. The timing of project billing depends on the project billing period defined for the project.

Configuration of a Billing Rule Step

Each billing rule can include only one step of the *Progress Billing* type. For the billing rule step of this type, you can define the following settings:

- A formula to define the description of the invoice and another formula to define the description of each invoice line, to make the system compose these descriptions dynamically during the billing process.
 - The source of the sales account and the source of the destination branch for each invoice line.
- The billing process uses the originating branch from the project settings on the *Projects* (PM301000) form and the destination branches from the sources according to the billing rules. When an accounts receivable invoice is released, the accounts receivable account is updated under the originating branch of the invoice, while the revenue amounts are recorded to the destination branches of the invoice lines.
- The invoice group of the steps of the billing rules to which the project tasks refer.

The Progress Billing Process

Progress billing is a simple billing workflow for the projects that are gradually billed at a fixed contract amount. Progress billing does not involve project transactions. To bill a project task by its progress, you need to create a billing rule on the *Billing Rules* (PM207000) form and configure a step of the *Progress Billing* type in this rule. Then you assign the configured billing rule to project tasks on the **Tasks** tab of the *Projects* (PM301000) form.



If a project is billed with a billing rule that includes only a *Progress Billing* billing step, during the billing process, the system ignores any unbilled project transactions.

The progress billing procedure could be initiated for a project if either of the following is true:

- It has at least one revenue budget line with billable project revenue.
- It has pending values of 0 if the progress billing step of the billing rule assigned to any project task has the **Create Lines with Zero Amount and Quantity** check box selected on the [Billing Rules](#) form.

For more information, see [Billing with a Direct AR Invoice: General Information](#).

Each revenue budget line is billed based on amount or quantity, depending on the option selected in the **Progress Billing Basis** column on the **Revenue Budget** tab of the [Projects](#) form as follows:

- For a line billed by amount, you need to specify a nonzero amount, which may be a negative amount, in the **Pending Invoice Amount** column. For these lines, the **Pending Invoice Quantity**, **Draft Invoice Quantity**, and **Actual Quantity** values are always 0.
- For a line billed by quantity, you need to specify a nonzero quantity in the **Pending Invoice Quantity** column. In this case, the system will calculate the **Pending Invoice Amount** of the line as the pending invoice quantity multiplied by the unit rate specified in the line. The system will calculate the percentage of line completion (**Completed (%)**) based on the specified values.

You can also specify the **Completed (%)** value on the **Revenue Budget** tab for the needed revenue budget lines to indicate that the project tasks are being performed. The system will calculate the pending invoice values by using the following formulas:

$\text{Pending Invoice Amount} = \text{Revised Budgeted Amount} * (\text{Completed \%}) / 100 - \text{Draft Invoice Amount} - \text{Actual Amount}$

$\text{Pending Invoice Quantity} = \text{Revised Budgeted Quantity} * (\text{Completed \%}) / 100 - \text{Draft Invoice Quantity} - \text{Actual Quantity}$



Project-related invoices, debit memos, and credit memos that have been created manually on the [Invoices and Memos](#) (AR301000) form are not included in pending invoice quantities and amounts.

You run billing for one project by clicking the **Run Billing** button on the form toolbar of the [Projects](#) form or process multiple projects on the [Run Project Billing](#) (PM503000) form. When you run the project billing, the system prepares a project invoice whose type depends on the state of the **Create Pro Forma Invoice on Billing** check box on the **Summary** tab of the [Projects](#) form as follows:

- If the check box is selected, the system generates a pro forma invoice with a positive or negative amount.
- If the check box is cleared, the system generates an accounts receivable invoice (if the billed amount is positive) or credit memo (if the billed amount is negative). For more information about credit memos, see [Project Invoice Correction: Credit Memos for Projects](#).

The system creates a project invoice with the unit prices, amounts, and quantities copied from the **Unit Rate**, **Pending Invoice Amount** and **Pending Invoice Quantity** columns of the **Revenue Budget** tab of the [Projects](#) form for the corresponding revenue budget lines. If the project billing is performed by using the pro forma invoice workflow, the pro forma invoice lines that are produced by the progress billing steps are shown in the prepared pro forma invoice on the **Progress Billing** tab of the [Pro Forma Invoices](#) (PM307000) form.

During the billing process, the system groups the billable amounts into invoices based on the following:

- The invoice group of the steps of the billing rules to which the project tasks refer
- The customer
- The customer location
- The **Bill Separately** setting of each project task defined on the [Project Tasks](#) (PM302000) form

For more information, see [Grouping of Invoices: General Information](#).

Once an invoice is prepared, the **Draft Invoice Amount** and **Draft Invoice Quantity** of the revenue budget lines are updated with the amount and quantity for which the invoice has been prepared. The **Pending Invoice Amount** and **Pending Invoice Quantity** values become 0.

If you manually adjust the **Amount to Invoice** of a pro forma invoice line, the system automatically recalculates the **Total Completed (%)** in this line. This is the percentage of the revised budgeted amount of the revenue budget line of the project that has been invoiced by all the pro forma invoices of the project, including the current one. However, the system does not update the **Completed (%)** of the corresponding revenue budget line on the **Revenue Budget** tab of the [Projects](#) form accordingly. Also, the system does not update the **Completed (%)** of the revenue budget line if the related pro forma invoice with the corresponding progress billing line is deleted.

When you release a pro forma invoice and the system creates the corresponding accounts receivable invoice, the system copies the values in the **Amount to Invoice** column from the **Progress Billing** tab of the [Pro Forma Invoices](#) form to the corresponding lines of the accounts receivable invoice on the **Details** tab of the [Invoices and Memos](#) (AR301000) form.

Progress Billing: To Configure a Progress Billing Rule

The following implementation activity will walk you through the process of configuring a progress billing rule.

Story

Suppose that you, as the project accountant of the SweetLife Fruits & Jams company, need to configure a billing rule to be used for billing a customer based on the progress of a project that your company completes for the customer.

Configuration Overview

For the purposes of this activity, on the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.

Process Overview

You will configure a billing rule for progress billing on the [Billing Rules](#) (PM207000) form.

Step 1: Configuring a Billing Rule

To configure a billing rule to be used for progress billing, perform the following instructions:

1. On the [Billing Rules](#) (PM207000) form, add a new record.
2. In the Summary area of the left pane, specify the following settings:
 - **Billing Rule ID:** PRGRULE
 - **Description:** Billing projects by progress
3. In the left pane, add a row for the billing rule step, and specify the following settings in the row:
 - **Active:** Selected
 - **Step ID:** 10
 - **Description:** Billing by progress
4. In the right pane, specify the following settings for the step (which is selected in the left pane):
 - **Billing Type:** Progress Billing
 - **Invoice Description Formula:** ='Invoice for '+[PMPProject.ContractCD]

The system uses this formula to define the description of the invoice created based on the billing rule. The PMPProject.ContractCD data field stores the project identifier.
 - **Line Description Formula:** =[PMBudget.Description]

The system uses this formula to define the description of the invoice line created based on the billing step. The `PMBudget.Description` data field stores the description of a project budget line.

- **Use Sales Account From: Account Group**

The system uses as the sales account the default account of the account group of a revenue budget line of a project.

- **Create Lines with Zero Amount and Quantity: Cleared**

You clear this check box to add to the created invoice only the lines with nonzero amounts.

5. Save the billing rule you have created.

You have configured the billing rule that can be used for billing a fixed-price project based on its progress. To bill a project by using this rule, you need to assign the rule to the project tasks.

Progress Billing: To Bill a Project by Progress

This activity will walk you through the process of billing a project by its progress.

Story

Suppose that the HM's Bakery and Cafe customer has ordered 20 hours of new-employee training on operating juicers from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a project to handle the tracking and billing of the provided services; the project should be billed on demand as the services are provided. Before each invoice is sent to the customer for payment, the customer has requested that a pro forma invoice be submitted for acceptance.

Then suppose that on 1/30/2025, SweetLife's consultant has provided five hours of the training. As the project accountant, you need to update the progress of the project and bill the customer for the provided training.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the *Enable/Disable Features* (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the *Billing Rules* (PM207000) form, the *PROGRESS* billing rule has been configured.
- On the *Customers* (AR303000) form, the *HMBAKERY* customer has been created.
- On the *Projects* (PM301000) form, the *HMBAKERY3* project has been created. On the **Tasks** tab, the *TRAINING* project task has been added, and the *PROGRESS* billing rule is specified for this task. Also, on the **Summary** tab, the **Create Pro Forma Invoice on Billing** check box is selected, indicating that a pro forma invoice is created when the project is billed, and the **Billing Period** is set to *On Demand*.

Process Overview

You will update the progress of the project on the *Projects* (PM301000) form to indicate that services have been provided partially. Then you will run project billing and review the prepared pro forma invoice on the *Pro Forma Invoices* (PM307000) form. After that, you will release the pro forma invoice, which causes the corresponding accounts receivable invoice to be created. After you review and release the AR invoice on the *Invoices and Memos* (AR301000) form, you will review the project and make sure that the project balances have been updated.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is

displayed, click the Business Date menu button, and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: To Run Project Billing

To update the progress of project completion and bill the project in an amount corresponding to the progress, do the following:

1. On the [Projects](#) (PM301000) form, open the HMBAKERY3 project.
2. On the **Revenue Budget** tab, specify 25 as the **Completed (%)** in the only revenue budget line to indicate that 25 percent of the project task has been completed (5 hours of 20). The system calculates the **Pending Invoice Amount** as \$250. Because the project has a nonzero **Pending Invoice Amount** in the revenue budget line, you can now bill the project.
3. Save your changes to the project.
4. On the form toolbar, click **Run Billing**.

The system creates a pro forma invoice and opens it on the [Pro Forma Invoices](#) (PM307000) form.

Step 2: To Process a Pro Forma Invoice and the Corresponding AR Invoice

To process the pro forma invoice, while you are still viewing the prepared pro forma invoice on the [Pro Forma Invoices](#) (PM307000) form, do the following:

1. On the **Progress Billing** tab, review the only line. The system has added this line based on the corresponding revenue budget line of the project on the [Projects](#) form (PM301000) that has been billed by its progress. The **Amount to Invoice** in the only progress billing line and the **Progress Billing Total** on the Summary area of the invoice is \$250.
2. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release**. The system closes the pro forma invoice (and assigns it the *Closed* status), and creates a corresponding accounts receivable invoice based on the pro forma invoice.
3. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that has been created on the [Invoices and Memos](#) (AR301000) form.
4. On the form toolbar, click **Remove Hold** to assign the accounts receivable invoice the *Balanced* status, and then click **Release**.

Step 3: To Review the Updated Project Details

To review how the project billing has affected the project budget, do the following:

1. On the [Projects](#) form, open the HMBAKERY3 project.
2. On the **Revenue Budget** tab, review the only revenue budget line. Notice that the **Pending Invoice Amount** is now 0, and the **Actual Amount** is \$250, as shown in the following screenshot. Also notice that **Actual Income** in the Summary area has been updated and is now \$250.

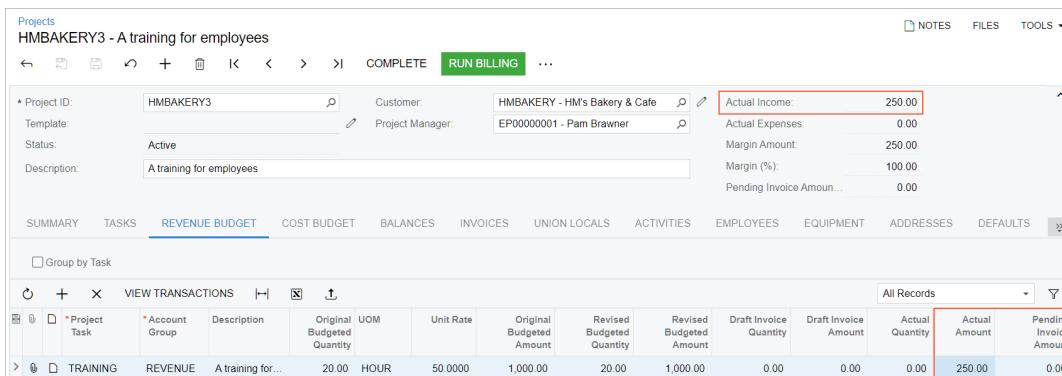


Figure: The revenue budget of the project

You have billed the project by its progress.

Lesson 11: Billing Projects for Time and Material

You run billing for a project to prepare an invoice for the customer. You can bill the customer for the time and material spent on the project.

Time and Material Billing: General Information

With time and material billing in Acumatica ERP, you run project billing to automatically generate customer invoices based on the cost project transactions.

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure a time and material billing rule
- Make sure that the project is ready to be billed
- Run project billing for a project
- Process the documents that have been generated during the project billing
- Review how the project's actual amounts are updated with the billed amounts

Applicable Scenarios

You run project billing to prepare an invoice for the customer for the time and material spent on the project. The timing of project billing depends on the project billing period defined for the project.

Configuration of a Billing Rule Step

For a billing rule step of the *Time and Material* type, you can specify the following settings:

- The account group that is used as a filter to select the transactions for billing by the *Time and Material* billing steps. When the billing procedure is run, the system selects all the transactions that are due for billing and that have this account group. Normally, you use for billing the same account group or groups that you use for accumulating the unrecognized revenue.

- A formula to define the description of the invoice and a formula to define the description of each invoice line, to make the system compose these descriptions dynamically during the billing process.
- A formula to calculate the amount of the invoice lines created by the *Time and Material* billing steps, and another formula to calculate the quantity of these invoice lines. In these formulas, you can use fields and attributes from such entities as the project, project budget, project task, project transaction, customer, vendor, employee, inventory item, and account group. You can also use different sources of the project rates: those from rate tables, which can be configured on the [Rate Tables](#) (PM206000) form; and those from sales price lists, which are defined on the [Sales Prices](#) (AR202000) form.



If inclusive taxes are configured in the system, the amounts of project transactions are considered gross amounts—that is, already including the inclusive taxes. If the project transaction amounts that you enter in your system are net amounts (that is, it does not include an inclusive tax), you need to configure the line amount formula to include the `PMBudget.InclTaxAmount` value in the calculations.

- The source of the sales account and the source of the destination branch for each invoice line. The billing process uses the originating branch from the project settings on the [Projects](#) (PM301000) form and the destination branches from the sources according to the billing rules. When an accounts receivable invoice is released, the accounts receivable account is updated under the originating branch of the invoice, while the revenue amounts are recorded to the destination branches of the invoice lines.
- The invoice group, which can be used during billing to make the system create separate invoices (either pro forma invoices or accounts receivable invoices, depending on the billing workflow of the project) for particular steps with the same invoice group during the project billing.
- Non-billable transactions that do not contribute to the amount billed to the customer and that you may decide to include in the invoice.
- Grouping criteria by date, employee, vendor, and inventory item for the invoice lines created by the *Time and Material* billing steps.

The Time and Material Billing Process

The time and material billing workflow is provided for project tasks that need to be billed based on project transactions. Time and material billing can be performed only for project tasks of a project that is pending billing—that is, if the project has at least one unbilled transaction that is ready to be billed on the invoice date. The *Time and Material* billing steps can be run once the project transactions that match the selection criteria have been processed. Optionally, the allocation process can be executed for these transactions before billing. For more information, see [Billing with a Direct AR Invoice: General Information](#).



If a project is billed with a billing rule that includes only *Time and Material* billing steps, during the billing process, the system ignores any pending invoice amount of the revenue budget lines.

To bill a project task for time and material, you need to create a billing rule on the [Billing Rules](#) (PM207000) form and configure a step or multiple steps of the *Time and Material* type in this rule. Multiple *Time and Material* steps are used in a billing rule for different account groups of transactions that should be used to determine the invoiced amounts by using different formulas. Then you assign the configured billing rule to project tasks on the **Tasks** tab of the [Projects](#) (PM301000) form.



If you configure multiple time and material steps for the same account group, only the last pro forma invoice line created based on these steps will be linked to the project transaction that has been used as a basis for billing.

You can run billing for one project by clicking the **Run Billing** button on the form toolbar of the [Projects](#) form or process multiple projects on the [Run Project Billing](#) (PM503000) form. When you run the project billing, the system

prepares a project invoice whose type depends on the state of the **Create Pro Forma Invoice on Billing** check box on the **Summary** tab of the [Projects](#) form as follows:

- If the check box is selected, the system generates a pro forma invoice with a positive or negative amount.
- If the check box is cleared, the system generates an accounts receivable invoice (if the total billed amount is positive) or credit memo (if the total billed amount is negative). For more information about credit memos, see [Project Invoice Correction: Credit Memos for Projects](#).

The system creates a project invoice based on the unbilled project transactions with amounts calculated by using the billing rules of the project tasks. In the billing, the system includes the transactions with a date that is earlier than the billing date and does not include the transactions with a date that is later than the billing date. If the project billing is performed by using the pro forma invoice workflow, the invoice lines that are produced by the *Time and Material* billing steps are displayed on the **Time and Material** tab of the [Pro Forma Invoices](#) (PM307000) form.

The transactions with the same date as the invoice date are billed if *Include Transactions with Billing Date* is selected as the **Billing Cutoff** on the [Projects Preferences](#) (PM101000) form; if *Include Only Transactions Before Billing Date* is selected, the system skips the transactions with the same date as the invoice date.

During the billing process, the system groups the billable amounts into separate invoices based on the following:

- The invoice group of the steps of the billing rules to which the project tasks refer
- The customer
- The customer location
- The **Bill Separately** setting of each project task defined on the [Project Tasks](#) (PM302000) form

For more information, see [Grouping of Invoices: General Information](#).

If the status of a pro forma invoice is *On Hold*, you can change the **Amount to Invoice** values in the time and material lines of the pro forma invoice. When you release a pro forma invoice and the system creates the corresponding accounts receivable invoice or credit memo, the system copies the values in the **Amount to Invoice** column from the **Time and Material** tab of the [Pro Forma Invoices](#) form to the lines of the accounts receivable invoice (or credit memo) on the **Details** tab of the [Invoices and Memos](#) (AR301000) form. You cannot change the **Amount to Invoice** value in the lines of a pro forma invoice with the *Open* and *Closed* status.



If the *Construction* feature is in use, you may need to prepare an American Institute of Architects (AIA) report that includes time and material amounts from the prepared pro forma invoice. To do this, you include the time and material amounts to be billed in the progress billing amounts. For more information, see [Construction Reports: Time and Material Amounts in AIA Reports](#).

Time and Material Billing: To Configure a Time and Material Rule

The following implementation activity will walk you through the process of configuring a time and material billing rule.

Story

Suppose that you, as the project accountant of the SweetLife Fruits & Jams company, need to configure a billing rule to be used for billing customers for the materials that have been spent on providing services as part of the project, and for the time that has been spent by SweetLife's employees performing work for the project.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Account Groups](#) (PM201000) form, the following account groups have been configured:
 - The *MATERIAL* account group of the expense type, which aggregates the amounts posted to the *50000 (GOGS – Inventory)* account
 - The *LABOR* account group of the expense type, which aggregates the amounts posted to the *54100 (Project Labor Expense)* account.

Process Overview

You will create a billing rule for time and material billing on the [Billing Rules](#) (PM207000) form, and add to this rule two steps for billing different account groups.

Step 1: Configuring a Billing Rule and Adding a Step

To configure a billing rule to be used for time and material billing and then add a step for billing for materials, perform the following instructions:

- On the [Billing Rules](#) (PM207000) form, add a new record.
- In the Summary area of the left pane, specify the following settings:
 - Billing Rule ID:** MATTIME
 - Description:** Billing rule for materials with markup
- In the left pane, add a row for the billing rule step, and specify the following settings in the row:
 - Active:** Selected
 - Step ID:** 10
 - Description:** Billing for materials (cost with markup)
- In the right pane, specify the following settings for the step (which is selected in the left pane because it is the only step):
 - Billing Type:** Time and Material
 - Account Group:** MATERIAL

This step of the billing rule will be used for processing project transactions related to the account group, which includes expenses for materials.
 - Invoice Description Formula:** = 'Invoice for '+[PMProject.ContractCD]

The system uses this formula to define the description of the invoice created based on the billing rule. The PMProject.ContractCD data field stores the project identifier.
 - Line Quantity Formula:** =[PMT Tran.BillableQty]
 - Line Amount Formula:** =[PMT Tran.Amount]*1.25

The invoiced amount is calculated as the amount of a project transaction multiplied by 1.25.
 - Line Description Formula:** =[PMT Tran.Description]
 - Use Sales Account From:** Inventory Item
 - Create Lines with Zero Amount and Quantity:** Cleared

You clear this check box to add to the created invoice only lines with a nonzero amount and quantity.
- Save your changes.

Step 2: Adding One More Step to the Billing Rule

To add and configure a step for billing for labor, do the following:

1. While you are still viewing the *MATTIME* billing rule on the [Billing Rules](#) (PM207000) form, in the left pane, add a row for the second step of the billing rule, and specify the following in the row:
 - **Active:** Selected
 - **Step ID:** 20
 - **Description:** Billing for employee time
2. In the right pane, specify the following settings for the new step (which is selected in the left pane):
 - **Billing Type:** *Time and Material*
 - **Account Group:** *LABOR*
This step of the billing rule will be used for processing project transactions related to the account group, which includes expenses for employee labor.
 - **Invoice Description Formula:** = 'Invoice for ' + [PMProject.ContractCD]
The system uses this formula to define the description of the invoice created based on the billing rule. The PMProject.ContractCD data field stores the project identifier.
 - **Line Quantity Formula:** =[PMT Tran.BillableQty]
 - **Line Amount Formula:** =[PMT Tran.Amount]*1.25
The invoiced amount is calculated as the amount of a project transaction multiplied by 1.25.
 - **Line Description Formula:** =[PMT Tran.Description]
 - **Use Sales Account From:** *Inventory Item*
 - **Create Lines with Zero Amount and Quantity:** Cleared
3. Save the created billing rule.

You have configured the billing rule that can be used for billing the cost-plus project for the time and material spent on the services related to the project. To bill a project by using this rule, you need to assign the rule to the project tasks.

Time and Material Billing: To Bill a Project for Time and Material

This activity will walk you through the process of billing a project for time and material.

Story

Suppose that the HM's Bakery and Cafe customer has ordered a juicer from the SweetLife Fruits & Jams company, along with the services of installation and employee training on operating the juicer. SweetLife's project accountant has created the project to handle the tracking and billing of the juicer and the provided services. Then the project accountant has entered a project transaction to record the delivery and installation of the juicer, and eight hours of training have been provided by SweetLife consultants on January 14, 2025. Acting as the project accountant, you need to bill the customer for the project so that the billing includes the materials used and the work time spent on the project.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Billing Rules](#) (PM207000) form, the *TM* billing rule has been configured. The billing rule includes three steps, each billing a particular account group (*MATERIAL*, *LABOR*, and *SUBCON*); for each group, the amount to be invoiced is calculated by multiplying the project transaction amount by 1.25.
- On the [Customers](#) (AR303000) form, the *HMBAKERY* customer has been defined.

- On the [Projects](#) (PM301000) form, the *HMBAKERY4* project has been created for the *HMBAKERY* customer, and the *PHASE1* and *PHASE2* tasks have been added to the project. On the **Tasks** tab, the *TM* billing rule has been specified for both project tasks. Also, on the **Summary** tab, the **Create Pro Forma Invoice on Billing** check box is selected, indicating that a pro forma invoice is created when the project is billed.
- On the [Project Transactions](#) (PM304000) form, the *PM00000007* batch of project transactions related to the project has been created and released to record the services provided for the project.

Process Overview

You will make sure that the project is pending billing and run the project billing on the [Projects](#) (PM301000) form, which causes the system to create a pro forma invoice. On the [Pro Forma Invoices](#) (PM307000) form, you will review the lines that have been added to this pro forma invoice and release it. Then you will review the corresponding accounts receivable invoice and release it on the [Invoices and Memos](#) (AR301000) form, and review how this affects the project's actual values.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2025*. If a different date is displayed, click the Business Date menu button, and select *1/30/2025* on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Reviewing Project Transactions Pending Billing

To review the project transactions that have not been billed yet, do the following:

- Open the [Project Transaction Details](#) (PM401000) form.
 - In the Selection area, select *HMBAKERY4* as the **Project**, and make sure that the **Project Task and Account Group** boxes are cleared. In the table, the system lists the following project transactions dated *1/14/2025*:
 - The *JUICER15* line in the amount of \$2,000
 - The *TRAINING* line in the amount of \$320
 - Two lines with the *INSTALL* item related to the *PHASE1* project task, with amounts of \$80 and \$240
- Notice that in all lines, the **Billable** check box is selected and the **Billed** check box is cleared, indicating that these project transactions are pending billing.

Step 2: Billing the Project and Processing the Related Documents

To bill the project, do the following:

- On the [Projects](#) (PM301000) form, open the *HMBAKERY4* project. In the Summary area, notice that the actual expenses of the project are \$2,640 (which is the total of the processed project transactions), while the actual income of the project is \$0 because the project has not been billed yet.
- On the form toolbar, click **Run Billing**. The system creates a pro forma invoice and opens it on the [Pro Forma Invoices](#) (PM307000) form.
- On the **Time and Material** tab of the form, review the lines that the system has created based on the project transactions. The pro forma invoice includes three lines:
 - The *JUICER15* line with the billed amount of \$2,500
 - The *TRAINING* line with the billed amount of \$400
 - The *INSTALL* line (which aggregates two project transactions) in the amount of \$400

4. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release**. The system creates a corresponding accounts receivable invoice based on the pro forma invoice. The pro forma invoice is assigned the *Closed* status.
5. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that has been created on the *Invoices and Memos* (AR301000) form.
6. On the form toolbar, click **Remove Hold** to assign the invoice the *Balanced* status, and then click **Release**.

Step 3: Reviewing the Project Transactions and the Updated Project Balance

To review the project transactions and project balance, do the following:

1. On the *Project Transaction Details* (PM401000) form, in the Selection area, select **HMBAKERY4** as the **Project**. In the table, review the project transactions that have been created based on the released accounts receivable invoice (these are the lines that have **AR** specified in the **Module** column and negative amounts). In the **GL Batch Nbr.** column, the reference number of the corresponding GL batch is shown. Also notice that the project transactions based on which you have performed time and material billing now have the **Billed** check box selected, indicating that these transactions have been billed.
2. On the *Projects* (PM301000) form, open the **HMBAKERY4** project. In the Summary area, notice that the actual income is now \$3,300. On the **Revenue Budget** tab, notice that the system has automatically created two revenue budget lines (one for each project task), and filled in the **Actual Amount** for the rows.
3. On the **Balances** tab (see the following screenshot), review the project income and expenses aggregated by account groups.

Account Group	Description	Original Budgeted Amount	Revised Budgeted Amount	Actual Amount	Performance (%)
Income					
REVENUE	Project Revenue	0.00	0.00	3,300.00	0.00
	Income Totals	0.00	0.00	3,300.00	0.00
Expense					
LABOR	Project Labor	320.00	320.00	320.00	100.00
MATERIAL	Project Material	2,000.00	2,000.00	2,000.00	100.00
SUBCON	Project Subcontract	320.00	320.00	320.00	100.00
	Expense Totals	2,640.00	2,640.00	2,640.00	100.00

Figure: The project balances after project billing

You have billed the project for time and material.

Lesson 12: Adding New Expenses to Billing Rules

In Acumatica ERP, billing rules are used to calculate the amounts being billed to customers. When you bill customers for the time and material spent on the project, the billing rule or rules specified for the project tasks must support the processing of each type of expense tracked in the project budget.

Learning Objectives

In this lesson, you will learn how to do the following:

- Add a time and material step to a billing rule to process a new type of expenses
- Use item prices in billing rules

Applicable Scenarios

You modify billing rules if your company starts providing new services while billing customers for the time and material.

Billing Rules: To Modify a Billing Rule to Track New Expenses

This activity will walk you through the process of modifying a billing rule by adding a new step, so that you can bill a new type of expenses within projects.

Story

Suppose that the West BBQ Restaurant customer has contacted the SweetLife Fruits & Jams company and requested a maintenance service for a juicer. This is a new type of service that the company has not previously provided for any customer. SweetLife's employee has visited the customer and provided two hours of the new maintenance service.

Acting as the project accountant of SweetLife, you need to update the billing rule used in the project to track the new type of expenses and bill the customer for the provided services.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the *Enable/Disable Features* (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the *Billing Rules* (PM207000) form, the *STANDARD* billing rule has been created.
- On the *Account Groups* (PM201000) form, the *MAINTSERV* account group has been created.
- On the *Chart of Accounts* (GL202500) form, the *54500 - Maintenance Expense* expense account has been created. The account has been mapped to the *MAINTSERV* account group.
- On the *Non-Stock Items* (IN202000) form, the *MAINTSERV* inventory item has been created. The *54500 (Maintenance Expense)* account has been selected as the expense account of the item and the default price has been set to \$80.
- On the *Customers* (AR303000) form, the *WESTBBQ* customer has been configured.
- On the *Projects* (PM301000) form, the *WESTSERV* project has been created for the *WESTBBQ* customer, and the *SERVICE* project task has been added to the project. On the **Tasks** tab, the *STANDARD* billing rule has been specified for the project task.

Process Overview

On the *Billing Rules* (PM207000) form, you will add a new step to the billing rule; for the step, you will configure processing transactions related to the new maintenance service. Then you will create project transactions on the *Project Transactions* (PM304000) form to record the provided maintenance work and update the actual

project values. Finally, you will bill a project and review the prepared pro forma invoice on the *Pro Forma Invoices* (PM307000) form.

Step 1: Modifying a Billing Rule

To add to an existing billing rule a billing step to bill maintenance expenses with a fixed margin coefficient of 1.2, do the following:

1. On the *Billing Rules* (PM207000) form, open the *STANDARD* billing rule.
2. In the left pane, add a row, and specify the following settings for it:

- **Active:** Selected
- **Step ID:** 40
- **Description:** Maintenance cost plus markup

3. In the right pane, specify the following settings for the step selected in the left pane:

- **Billing Type:** Time and Material
- **Account Group:** MAINTSERV

In this step of the billing rule, the system processes a project transaction that debits accounts mapped to the *MAINTSERV* account group.

- **If @Rate Is Not Defined:** Set @Rate to 0
- **Invoice Description Formula:** = 'Invoice for '+[PMProject.ContractCD]
- **Line Quantity Formula:** =[PMTtran.BillableQty]
The system uses the quantity of the project transaction as the quantity of each invoice line.
- **Line Amount Formula:** =[PMTtran.BillableQty]*1.2*@Price
The invoiced amount is calculated as the billable quantity of the project transaction multiplied by the price of the related inventory item with the markup.
- **Line Description Formula:** =[PMTtran.Description]
The system uses the description of the project transaction as the description of the invoice line.
- **Use Sales Account From:** Inventory Item
- **Create Lines with Zero Amount and Quantity:** Cleared

4. Save your changes to the billing rule.

Step 2: Creating and Processing a Project Transaction

To update the actual values of the project, create and process a project transaction for two hours of maintenance work by doing the following:

1. On the *Project Transactions* (PM304000) form, create a new transaction.
2. In the Summary area, specify *PM* as the **Module** and *Maintenance service* for *WESTSERV* as the **Description**.
3. In the table on the **Details** tab, click **Add Row** on the table toolbar, and specify the following settings in the row:
 - **Project:** WESTSERV
 - **Project Task:** SERVICE
 - **Cost Code:** 00-000
 - **Account Group:** MAINTSERV
 - **Inventory ID:** MAINTSERV
 - **Quantity:** 2
 - **Unit Rate:** 80.00

4. On the form toolbar, click **Save**, and then click **Release**.
5. On the *Projects* (PM301000) form, open the *WESTSERV* project, and on the **Cost Budget** tab, notice that a line with the cost of the provided maintenance service has appeared with an **Actual Amount** of \$160.

Step 3: Billing the Project and Reviewing the Billed Amount

To bill the project and review the document prepared for the customer, do the following:

1. While you are still reviewing the *WESTSERV* project on the *Projects* (PM301000) form, on the form toolbar, click **Run Billing**.
The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form.
2. On the **Time and Material** tab, review the invoice line that the system has created for the project transaction that you processed in the previous step. The **Billed Amount**, which is calculated by using the line amount formula you have specified for the new step of the billing rule, is \$192, which is the project transaction quantity (2) multiplied by the default price of the inventory item (\$80) and then multiplied by 1.2.
3. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release**. The system closes the pro forma invoice (which is now assigned the *Closed* status), and creates an accounts receivable invoice based on the pro forma invoice.
4. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that the system created on the *Invoices and Memos* (AR301000) form.
5. On the form toolbar, click **Remove Hold** to assign the accounts receivable invoice the *Balanced* status, and then click **Release**.
6. On the *Projects* (PM301000) form, open and review the *WESTSERV* project, which is shown in the following screenshot. Notice that in the Summary area, the **Actual Income** box now shows \$192, which is the total amount of the invoice that you have processed. The **Actual Expenses** box shows the amount of the project transaction that you have processed earlier (\$160).

Account Group	Description	Original Budgeted Amount	Revised Budgeted Amount	Actual Amount	Performance (%)
> Income					
REVENUE	Project Revenue	0.00	0.00	192.00	0.00
	Income Totals	0.00	0.00	192.00	0.00
Expense					
MAINTSERV	Maintenance Service	0.00	0.00	160.00	0.00
	Expense Totals	0.00	0.00	160.00	0.00

Figure: Updated project balances

You have updated the project billing rule and billed the project for time and material by using this rule.

Lesson 13: Grouping Invoices

This lesson describes how the system creates separate invoices depending on the project settings. You will also learn about the settings of billing rules that are used for billing.

Grouping of Invoices: General Information

In Acumatica ERP, the billing procedure provides opportunities for grouping invoices and creating separate invoices depending on the project settings and the settings of billing rules.

Learning Objectives

You will learn how to do the following:

- Configure project billing to create a single invoice for the project or to create multiple separate invoices
- Bill the project with different billing rules assigned to the project tasks
- Bill a project task separately from the other tasks of the project
- Bill project transactions that are associated with particular account groups separately from the other

Applicable Scenarios

You bill a project with separate invoices if, for example, the customer has asked you to provide a separate invoice for a particular project task, or if you need to create a separate invoice for a particular type of expenses.

Grouping of Invoices

When you run project billing for a particular project, the system creates a single invoice for all project tasks that have the same customer location selected in the **Location** box on the [Project Tasks](#) (PM302000) form.

The system also groups the billable amounts into multiple invoices based the originating branch of the invoice prepared during project billing that the system specifies by using the following priority:

1. If billing is performed with a pro forma invoice, the system first searches for a project branch, which is specified in the **Branch** box on the **Summary** tab (**Billing and Allocation Settings** section) of the [Projects](#) (PM301000) form. If project is billed with direct accounts receivable invoice, the system ignores the project branch.
2. The system searches for the shipping branch of the customer location selected in the project task, which is specified in the **Default Branch** box on the **General** tab of the [Customer Locations](#) (AR303020) form, if any. (Therefore, multiple pro forma invoices with different originating branches can be created for the same project if the project branch is not defined.)
3. The system searches for the shipping branch of the default location of the customer specified for the project task.
4. The system specifies the current branch selected on the Company and Branch Selection menu for the user that ran the project billing.

The system groups invoices to a single invoice for all the billing steps of billing rules for which the same **Invoice Group** is specified on the [Billing Rules](#) (PM207000) form. That is, if some project tasks are assigned a billing rule or multiple billing rules with billing steps that have the same invoice group, during the project billing, the system groups the lines created with these billing steps into a separate invoice.

To create a separate invoice for a particular project task, you need to select the **Bill Separately** check box in the **Billing and Allocation Settings** section on the **Summary** tab of the [Project Tasks](#) form.

Grouping of Invoices: Process Activity

This activity will walk you through the process of configuring project billing to create a single invoice for the project or to create multiple separate invoices. You will learn how to bill the project with different billing rules assigned to the project tasks, how to bill a project task separately from the other tasks of the project, and how to bill project transactions that are processed by particular steps of billing rules with a separate invoice.

Story

Suppose that the Thai Food Restaurant customer has ordered two juicers from the SweetLife Fruits & Jams company, along with the following services: site review, installation, and employee training on operating the juicers. The project accountant of SweetLife has created the project to handle the tracking and billing of the provided materials and services. The project has three tasks that represent three phases of the project execution:

- Phase 1: Installation of the first juicer
- Phase 2: Installation of the second juicer
- Phase 3: Training on operating the juicers

The juicers have been delivered and installed, and SweetLife's consultant has provided the training. Before each invoice is sent to the customer for payment, the customer has requested that a pro forma invoice be submitted for acceptance.

Acting as the project accountant, you will bill the customer with a single invoice. After the first billing, you will group the invoices in different ways based on the following customer's requests:

- Create a separate invoice for the third phase
- Create a separate invoice for the juicers

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the [Projects](#) (PM301000) form, the *TOMYUM9* project has been created and three project tasks have been configured.
- On the [Project Transactions](#) (PM304000) form, the *PM00000005* batch of project transactions related to the project has been created and released.

Process Overview

To bill a time and material project, you first will review and configure project invoices with the billing rule on the [Billing Rules](#) (PM207000) form and with the project tasks on the [Projects](#) (PM301000) form. Then you will bill the project on the [Projects](#) form. Finally, you will review the created pro forma invoice on the [Pro Forma Invoices](#) (PM307000) form.

System Preparation

To prepare to perform the instructions of the activity, in the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to 1/30/2025. If a different date is

displayed, click the Business Date menu button, and select 1/30/2025 on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.

Step 1: Billing a Project with Multiple Billing Rules

To bill the project with different billing rules assigned to the project tasks, do the following:

1. On the [Projects](#) (PM301000) form, open the *TOMYUM9* project.
2. On the **Cost Budget** tab, review the cost budget of the project. Make sure that it includes three lines with the *PHASE1* project task, three lines with the *PHASE2* project task, and one line with the *PHASE3* project task.
3. On the **Tasks** tab, in the line with the *PHASE2* task, change the billing rule in the **Billing Rule** column to *TM*. When you bill the project, the system will use this billing rule to process unbilled transactions associated with this project task.
4. Save your changes to the project.
5. On the form toolbar, click **Run Billing**.

The system creates a pro forma invoice and opens it on the [Pro Forma Invoices](#) (PM307000) form.

6. On the **Time and Material** tab, review the invoice lines and notice that lines related to all the project tasks are in the same invoice, even though the project tasks have different billing rules assigned. You need to reconfigure the billing to prepare a separate pro forma invoice for each project task.
7. Delete the pro forma invoice, so you can bill this project again when you change the configuration of project billing.

Step 2: Billing Project Tasks Separately

To bill the *PHASE3* project task separately from the other project tasks, do the following:

1. On the [Projects](#) (PM301000) form, open the *TOMYUM9* project.
2. On the **Tasks** tab, do the following to add a needed table column to those displayed on the tab:
 - a. In the table, click the Column Configuration button, the leftmost icon among the column headers. The system opens the **Column Configuration** dialog box.
 - b. In the **Available Columns** list of the dialog box, click the **Bill Separately** column.
 - c. Click the Add Column button (the right arrow icon between the lists) to add the column to the **Selected Columns** list.
 - d. Click **OK** to apply your changes to the list of columns and close the dialog box.
3. In the row with the *PHASE3* task, select the check box in the **Bill Separately** column to bill the task with a separate invoice.
4. Save your changes to the project.
5. On the form toolbar, click **Run Billing**, and review the generated invoices on the Pro Forma Invoices (PM3070PL) list of records that opens.

The system created two pro forma invoices. One invoice includes the transactions related to the *PHASE3* project task, and the other invoice includes the transactions related to the other project tasks.

6. Click the link in the **Reference Nbr.** column to open the pro forma invoice with the total amount of \$4,750 on the [Pro Forma Invoices](#) (PM307000) form. On the **Time and Material** tab, review the lines of the invoice. Notice that the invoice includes lines related to the *PHASE1* and *PHASE2* tasks.
7. Delete the pro forma invoice. The system navigates you back to the Pro Forma Invoices list of records.
8. Click the link in the **Reference Nbr.** column to open the pro forma invoice with the total amount of \$400 on the [Pro Forma Invoices](#) form. On the **Time and Material** tab, review the lines of the invoice. Notice that the invoice has a line related to only the *PHASE3* task.

- Delete the pro forma invoice.

You have deleted the pro forma invoices you created, so you are able to bill the project again when you change the configuration of project invoices again.

Step 3: Grouping Invoices by Steps of Billing Rules

To create a separate invoice for the juicers whose costs are tracked within the *MATERIAL* account group, do the following:

- On the *Billing Rules* (PM207000) form, open the *10 (Material cost plus markup)* step of the *TM* billing rule.
- In the right pane, enter *MATERIAL* in the **Invoice Group** box.

This step of the billing rule is used for time and material billing of transactions associated with the *MATERIAL* account group.

- Save your changes to the billing rule.
- Open the *20 (Material cost plus markup)* step of the *COMBINED* billing rule.
- In the right pane, enter *MATERIAL* in the **Invoice Group** box.

This step of the billing rule is used for time and material billing of transactions associated with the *MATERIAL* account group.

- Save your changes to the billing rule.

When you bill the project by using these billing rules, the system will group invoice lines created with the steps of the billing rules with the *MATERIAL* account group in a separate invoice.

- On the *Projects* (PM301000) form, open the *TOMYUM9* project.
- On the form toolbar, click **Run Billing**.

The system creates three pro forma invoices, and opens the Pro Forma Invoices (PM3070PL) list of records, shown in the following screenshot. The system has created one more separate invoice based on unbilled transactions with the *MATERIAL* account group using the steps of the billing rules with the *MATERIAL* invoice group.

Pro Forma Invoices										
		Status	Invoice Date	Customer ID	Project ID	Application Nbr.	Post Period	Customer Name	Description	Invoice Total
		ALL RECORDS	DRILLDOWN							
Drag column header here to configure filter										
	Reference Nbr.									
> 0	000027	On Hold	1/30/2025	TOMYUM	TOMYUM9	01-2025	Thai Food Restaurant	Invoice for TOMYUM9	400.00	
0	000026	On Hold	1/30/2025	TOMYUM	TOMYUM9	01-2025	Thai Food Restaurant	Invoice for TOMYUM9	750.00	
0	000025	On Hold	1/30/2025	TOMYUM	TOMYUM9	01-2025	Thai Food Restaurant	Invoice for TOMYUM9	4,000.00	

Figure: Pro forma invoices prepared during billing procedure

- Click the link in the **Reference Nbr.** column to open the pro forma invoice with the total amount of \$400 on the *Pro Forma Invoices* (PM307000) form. On the **Time and Material** tab, notice that the invoice includes one line related to the *PHASE3* task. Click Back in the browser window to go back to the list of records.
- Click the link in the **Reference Nbr.** column to open the pro forma invoice with the total amount of \$750 on the *Pro Forma Invoices* form. On the **Time and Material** tab, notice that the invoice includes four lines related to the *PHASE1* and *PHASE2* tasks except the lines with juicers. Click Back in the browser window to go back to the list of records.
- Click the link in the **Reference Nbr.** column to open the pro forma invoice with the total amount of \$4,000 on the *Pro Forma Invoices* form. On the **Time and Material** tab, notice that the invoice includes two lines with juicers related to the *MATERIAL* account group.

You have configured the grouping of pro forma invoices for the project and performed project billing with the new billing settings.

Part 4: Budget and Balances

This part describes how to populate and track the project budget, which is used to provide both a financial plan and cost constraints for a project. The part also covers how to review project balances.

Lesson 14: Configuring the Project Budget

This lesson explains how to configure the project budget and update its actual values.

Project Budget: General Information

The project budget is used to provide both a financial plan and cost constraints for a project. That is, you define the amount of money and resources to be spent on the project. As the project progresses, you can continuously track actual project costs and either adjust expenditures or revise the budget.

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure the revenue budget and the cost budget for a project
- Update the actual values of the project budget
- Review project balances

Applicable Scenarios

You configure a project budget in any of the following cases:

- If you want to plan the revenue of a project and track its completion
- If you want to plan and control the amount of money and resources spent on a project
- If you want to configure a fixed-price project that is billed for progress

Budget Planning

You plan a project budget during the estimation stage of the project, before any project transaction occurs. To estimate the project income, you add lines to the revenue budget of the project. To estimate the resources to be spent on the project, you add lines to the cost budget. During the execution stage of the project, when you process project transactions and bill the project, the actual values of the project budget are updated so that you can control the project execution and compare the actual values against the budgeted ones.

On the **Revenue Budget** and **Cost Budget** tabs of the [Projects](#) (PM301000) form, you can add, revise, and delete budget lines. Each budget line is defined by the project budget key, which is a unique combination of the following settings:

- A project
- A project task, which is a small identifiable piece of work that is a part of the project
- An account group, which determines the category of the revenue or expenses that are expected during the project execution.

- A particular inventory item needed to complete the task. If you do not need to associate the budget line with a particular item but the budget level is configured to include the item, you can select the empty item code (*N/A*) as the inventory item.
- A cost code if the *Cost Codes* features is enabled on the [Enable/Disable Features](#) (CS100000) form.

The level of details of revenue budget lines and cost budget lines—that is, whether you need to specify the inventory item and cost code or not, depends on the option selected in the **Revenue Budget Level** and **Cost Budget Level** boxes on the **Summary** tab (**Project Properties** section) of the [Projects](#) form. In each box, you can select one of the following options: *Task*, *Task and Item*, *Task and Cost Code*, and *Task, Item, and Cost Code*.

Other information that you can specify in a budget line includes the original budgeted quantity of the selected inventory item, the unit rate, and the original budgeted amount, which is calculated automatically as the original budgeted quantity multiplied by unit rate if you have not specified a value manually.

The revised budgeted quantity and amount are initially equal to the original budgeted values. During the estimation, acceptance, or execution stages of the project, you may want to revise the budget but keep the original budgeted amounts and quantities unchanged. This gives you the ability to analyze the accuracy of your original estimates while also adjusting the revised budgeted quantities and amounts. For more information, see [Project Budget Control: Budget Locking](#).

Budget Tracking

As a project is being processed, you create project-related documents, such as AP bills, purchase orders, or AR invoices. The release of these project-related documents causes the creation of project transactions. When these transactions are released, the system updates the **Actual Quantity** and **Actual Amount** on the **Revenue Budget** and **Cost Budget** tabs of the [Projects](#) (PM301000) form.



The system also updates the project budget when a change order line is released, a commitment line is added, a pro forma invoice line is added, an accounts receivable invoice line is added, and a new change request line is added or linked to a change order.

The system uses the project budget key to match the project transaction with a project budget line. If a budget line with the same combination exists, the system updates the actual values of the existing line. For a new combination that does not exist in the project budget, the system creates a new budget line.

For the revenue budget, the system creates a revenue budget line with the same inventory item as the inventory item of the transaction if the *Detailed* option is selected in the **Revenue Budget Update** box on the **General** tab of the [Projects Preferences](#) (PM101000) form. If the *Summary* option is selected, the system creates a revenue budget line with the empty item code (*N/A*) instead of the inventory item of the transaction. Similarly, the system creates cost budget lines based on the option selected in the **Cost Budget Update** box on the **General** tab of the [Projects Preferences](#) form.



The *Summary* option is useful if the following conditions are met:

- Only certain articles are budgeted at a very detailed level.
- There may be many transactions processed with different cost codes and items.
- All these transactions are budgeted in a single line of a project.

You track the **Actual Amount** of project budget lines on the [Projects](#) form and compare this amount with the **Revised Budgeted Amount** when reviewing the budget. In the **Performance (%)** column, the system estimates the percentage of the actual amount to the revised budgeted amount. In a project, you can track the performance at different levels as follows:

- For a project budget line on the **Revenue Budget** or **Cost Budget** tabs

A fully performed budget line has the performance of 100%. For a revenue budget line, this percent shows the progress of completion of your financial plan. For a cost budget line, the percentage shows how much expenses you have incurred against the planned amount.

- For a project task on the **Revenue Budget** or **Cost Budget** tabs if the **Group by Task** check box is selected on the table toolbar
- For an account group on the **Balances** tab

Similarly, you can compare the actual quantity of project budget lines with the revised budgeted quantity to control how the project execution fits the planned quantity. The actual quantity is updated only if the UOM is specified in the budget line and if the system can convert the UOM of the corresponding project transaction to the UOM of the budget line by using the list of unit conversions defined on the [Units of Measure](#) (CS203500) form.

Project Budget: To Configure and Update the Budget

In this activity, you will learn how to configure the project budget, update actual values of the project budget, and review project performance.

Story

Suppose that the Thai Food Restaurant customer has ordered a juicer along with the site review and installation services from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a project to handle the tracking and billing of the provided materials and services.

Acting as the project accountant, you will configure the revenue budget for the project to plan the expected revenue and the cost budget to plan the materials and services to be spent on the project. Then, when the juicer is delivered and the services are provided, you will enter project transactions to capture project costs and will check the expenses within the budget values. You will then bill the project and compare the project income with the budgeted values.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the [Enable/Disable Features](#) (CS100000) form, the *Project Accounting* feature has been enabled to provide support for the project accounting functionality.
- On the [Projects](#) (PM301000) form, the *TOMYUM5* project has been created and the *INSTALL* project task has been created for the project and configured as the default task. Also, *Task* is selected as the **Revenue Budget Level** of the project and *Task and Item* is selected as the **Cost Budget Level** of the project.
- On the [Account Groups](#) (PM201000) form, the *REVENUE*, *SUBCON*, *LABOR*, and *MATERIAL* account groups have been created.
- On the [Non-Stock Items](#) (IN202000) form, the *SITEREVIEW*, *INSTALL* and *TRAINING* non-stock items have been configured.
- On the [Stock Items](#) (IN202500) form, the *JUICER15* stock item has been configured.

Process Overview

In this activity, you will configure the project budget on the [Projects](#) (PM301000) form. You will then release project transactions on the [Project Transactions](#) (PM304000) form that will update the actual values of the project budget. You will then bill the project on the [Projects](#) (PM301000) form and release the created accounts receivable invoice on the [Invoices and Memos](#) (AR301000) form.

System Preparation

To prepare to perform the instructions of the activity, do the following:

1. Download the `TOMYUM5_Project_Transactions.xlsx` file provided with the course to your computer.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to `1/30/2025`. If a different date is displayed, click the Business Date menu button and select `1/30/2025` on the calendar. For simplicity, in this activity, you will create and process all documents in the system on this business date.
3. On the [Projects Preferences](#) (PM101000) form, specify the following settings on the **General** tab (**General Settings** section):
 - **Revenue Budget Update:** `Summary`
 - **Cost Budget Update:** `Detailed`
4. Save your changes to the project accounting preferences.

Step 1: Configuring the Project Budget

To specify the revenue and cost budgets for the project, do the following:

1. On the [Projects](#) (PM301000) form, open the `TOMYUM5` project.
On the **Summary** tab (**Project Properties** section), notice that the **Revenue Budget Level** of the project is `Task` and the **Cost Budget Level** of the project is `Task and Item`.
2. On the **Revenue Budget** tab, click **Add Row** on the table toolbar and specify the following settings for the added row:
 - **Project Task:** `INSTALL` (selected automatically as the default project task)
 - **Account Group:** `REVENUE`
 - **Original Budgeted Amount:** `3000`

The added line represents the price of the juicer, the site review, and the installation service.



Notice that because of the selected revenue budget level, the revenue budget does not include inventory items and you cannot add another line with the same project task and account group to the revenue budget.

3. On the **Cost Budget** tab, click **Add Row** and specify the settings shown in the following table in the three cost budget lines you add.

Project Task	Inventory ID	Original Budgeted Quantity	Unit Rate
<code>INSTALL</code>	<code>JUICER15</code>	1	2000
<code>INSTALL</code>	<code>SITEREVIEW</code>	2	40
<code>INSTALL</code>	<code>INSTALL</code>	4	80

When you select an inventory item in a budget line, the system automatically selects an account group for the line based on the expense account of the non-stock item or the COGS account of the stock item that is mapped to the account group.



Notice that because of the selected cost budget level you must specify an inventory item in a cost budget line. You cannot add another line with the same budget key (project task, inventory item, and account group) to the cost budget of the project.

4. On the form toolbar, click **Save**.

- In the table selection area, select the **Group by Task** check box. In the table, the only line to which the system grouped budget lines is shown. The **Original Budgeted Amount** of the line with the *INSTALL* project task is 2,400.00.

Step 2: Uploading Project Transactions

To upload and process the transactions to update actual values of the cost budget of the project, do the following:

- On the [Project Transactions](#) (PM304000) form, add a new record.
- In the Summary area, make sure **PM** is selected as the **Module**.
- In the **Description** box, type The juicer with the installation for the TOMYUM5 project.
- On the table toolbar of the **Details** tab, click **Load Records from File**.
- In the **File Upload** dialog box, which opens, click **Choose File** and select the **TOMYUM5_Project_Transactions.xlsx** file. Click **Upload**.
- In the **Common Settings** dialog box, which opens, leave the default settings, and click **OK**.
- In the **Columns** dialog box, leave the current column mapping, and click **OK**.

The system uploads four lines with the project transactions. In these lines, notice that the quantity of the provided services is less than you have budgeted—that is, an hour of the site review instead of two hours and three hours of the installation instead of four hours. Also notice that an extra line for two hours of training (which have not initially been budgeted) have been added.

- In the Summary area, make sure that the **Total Amount** of the uploaded transactions is 2,360.00.
- On the form toolbar, click **Save**, and then click **Release**.
- On the [Projects](#) (PM301000) form, open the *TOMYUM5* project, and in the Summary area, notice that the **Actual Expenses** box shows 2,360.00, which is the total amount of the released transactions.

On the **Cost Budget** tab, review the cost budget of the project. Notice that the system has created a new budget line with the *TRAINING* item because the *Detailed* level of the cost budget update is specified in the project accounting preferences. The system has also updated the **Actual Quantity** and **Actual Amount** of the budget lines based on the released transactions (see the following screenshot). You can compare revised budgeted values with actual ones and track the performance by budget line in the **Performance (%)** column.

	Project Task	Inventory ID	Account Group	Description	Original Budgeted Quantity	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Actual Quantity	Actual Amount	
>	INSTALL	SITEREVIEW	LABOR	Site review	2.00	HOUR	40.0000	80.00	2.00	80.00	1.00	40.00
<	INSTALL	TRAINING	LABOR	Training on juicer usage (at c...	0.00	HOUR	0.0000	0.00	0.00	0.00	2.00	80.00
<	INSTALL	JUICER15	MATERIAL	Commercial juicer with a prod...	1.00	PIECE	2,000.0000	2,000.00	1.00	2,000.00	1.00	2,000.00
<	INSTALL	INSTALL	SUBCON	Installation of equipment at th...	4.00	HOUR	80.0000	320.00	4.00	320.00	3.00	240.00

Figure: The cost budget of the project updated by released transactions

11. While remaining on the **Cost Budget** tab, in the table selection area, select the **Group by Task** check box and review totals by project task. The revised budgeted amount for the project task is 2,400.00, while the actual amount is 2,360.00.

Step 3: Billing the Project

To bill the project and process the invoice, do the following:

1. While you are still viewing the *TOMYUM5* project on the *Projects* (PM301000) form, on the form toolbar, click **Run Billing**.

The system creates an accounts receivable invoice and opens it on the *Invoices and Memos* (AR301000) form.

Notice that the **Detail Total** in the Summary area is 2,950.00.

2. On the form toolbar, click **Remove Hold** to assign the accounts receivable invoice the *Balanced* status, and then click **Release**.
3. Return to the *Projects* form with the *TOMYUM5* project opened, and press Esc to refresh the form. In the Summary area, notice that the **Actual Income** box shows 2,950.00, which is the total amount of the released invoice. The system also calculates the project margin as the difference of actual income and expenses (\$590).

On the **Revenue Budget** tab, review the revenue budget of the project. Notice that the system has updated the **Actual Amount** of the revenue budget line based on the released invoice.

4. On the **Balances** tab, review the project budget by account group, as shown in the following screenshot. You can track the performance by account group as well as by income and expense totals in the **Performance (%)** column.

Account Group	Description	Original Budgeted Amount	Revised Budgeted Amount	Actual Amount	Performance (%)
Income					
REVENUE	Project Revenue	3,000.00	3,000.00	2,950.00	98.33
	Income Totals	3,000.00	3,000.00	2,950.00	98.33
Expense					
LABOR	Project Labor	80.00	80.00	120.00	150.00
MATERIAL	Project Material	2,000.00	2,000.00	2,000.00	100.00
SUBCON	Project Subcontract	320.00	320.00	240.00	75.00
	Expense Totals	2,400.00	2,400.00	2,360.00	98.33

Figure: Project budget balances divided by account group

You have finished working with the project budget.

Lesson 15: Reviewing Project Balances

This lesson explains how you can review the project balances to become familiar with the project and gather the needed information about the work that has been performed.

Learning Objectives

In this lesson, you will learn how to do the following:

- Review the actual income and actual expenses of a project
- Understand whether the project has amounts that are pending billing
- Review the list of project commitments
- Review the project budget broken down by account group

Project Budget: To Review Project Balances

In this activity, you will review project balances by using Acumatica ERP reports and forms.

Story

Suppose that the HM's Bakery and Cafe customer has ordered juicers, along with the following services: site review, installation, and employee training on operating the juicers from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a project to handle the tracking and billing of the provided materials and services. The juicers have been delivered. The installation has been performed by Squeezo Inc. Then, SweetLife's consultant has provided the training. The project accountant of SweetLife has created purchase orders, entered project transactions, and partially billed the customer.

When the project accountant has got a sick leave, another SweetLife's project accountant continues working on the project. The first accountant has no possibility to hand over the project to the new accountant. Acting as the new project accountant, you need to review the project balances to become familiar with the project and gather all the information about performed work.

Configuration Overview

In the *U100* dataset, the following tasks have been performed to support this activity:

- On the *Enable/Disable Features* (CS100000) form, the *Project Accounting* feature has been enabled to support the project accounting functionality.
- On the *Projects* (PM301000) form, the *HMBAKERY6* project has been created and the *PHASE1*, *PHASE2*, *PHASE3*, and *PHASE4* project tasks have been created for the project.
- On the *Purchase Orders* (PO301000) form, the *000020* and *000021* purchase orders (which are related to the project) have been created and billed.
- On the *Project Transactions* (PM304000) form, the *PM00000009*, *PM00000010*, and *PM00000011* batches of project transactions related to the project have been created and released.

Project transactions related to the *PHASE1*, *PHASE2*, and *PHASE4* tasks of the project have been billed—that is, a pro forma invoice and the corresponding accounts receivable invoice have been created and released on the *Pro Forma Invoices* (PM307000) form and the *Invoices and Memos* (AR301000) form, respectively. Also, on the *Pro Forma Invoices* form, a pro forma invoice for project transactions related to the *PHASE3* task has been created.

Process Overview

You will review a project's cost and revenue budget on the *Projects* (PM301000) form along with the corresponding project transactions on the *Project Transaction Details* (PM401000) form. You will review the list of invoices prepared for the project to understand if it has amounts pending billing. Then you will review the list of project commitments

on the [Commitments](#) (PM306000) form. Finally, you will review the project budget broken down by account group on the **Balances** tab of the [Projects](#) form.

System Preparation

To prepare to perform the instructions of the activity, on the [Projects Preferences](#) (PM101000) form , select the **Internal Cost Commitment Tracking** check box, and save your changes to the project accounting preferences. This exposes the committed values of the budget, which you will need during the process of the budget review.

Step: Reviewing the Project Balances

To review project reports, do the following:

1. On the [Projects](#) (PM301000) form, open the HMBAKERY6 project.

In the Summary area, notice that the actual income is \$5,700 and the actual expenses are \$8,000.

2. On the **Revenue Budget** tab, pay attention to the values in the **Actual Amount** and **Draft Invoice Amount** columns, as shown in the following screenshot.

The lines with the *PHASE1*, *PHASE2*, and *PHASE4* tasks have nonzero actual amounts (\$1,850, \$2,950, and \$900, respectively), which means the work performed within these tasks have been billed. You can compare the actual amount and the revised budgeted amount of the lines to estimate the completion of the revenue budget.

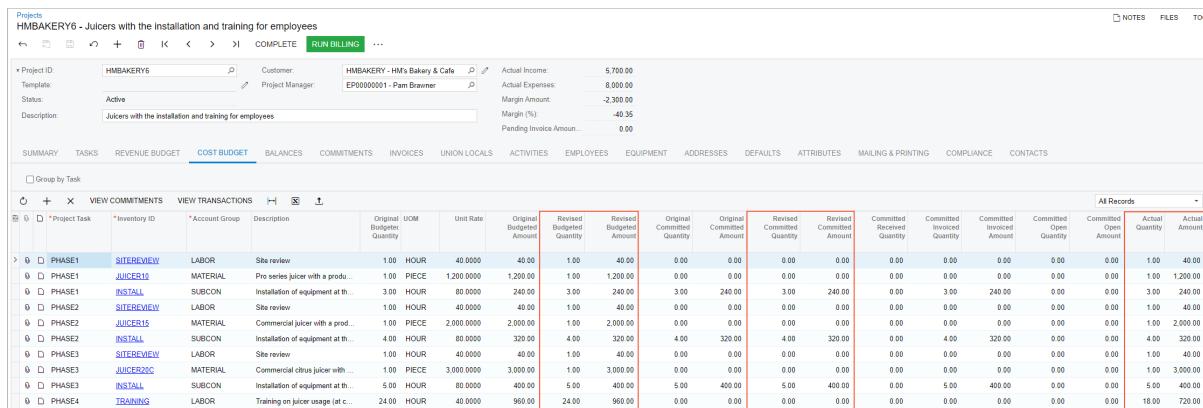
The line with the *PHASE3* task has a nonzero draft invoice amount (\$4,300), which means a pro forma invoice has been already prepared for this line but the corresponding AR invoice has not been created or has not been released yet.

* Project Task	* Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Draft Invoice Quantity	Draft Invoice Amount	Actual Quantity	Actual Amount
> <input type="checkbox"/> <input checked="" type="checkbox"/> PHASE1	REVENUE	Installation of the first juicer	0.00	HOUR	0.0000	1,850.00	0.00	1,850.00	0.00	0.00	4.00	1,850.00
< <input type="checkbox"/> <input checked="" type="checkbox"/> PHASE2	REVENUE	Installation of the second juicer	0.00	HOUR	0.0000	2,950.00	0.00	2,950.00	0.00	0.00	5.00	2,950.00
< <input type="checkbox"/> <input checked="" type="checkbox"/> PHASE3	REVENUE	Installation of the third juicer	0.00	HOUR	0.0000	4,300.00	0.00	4,300.00	0.00	4,300.00	0.00	0.00
< <input type="checkbox"/> <input checked="" type="checkbox"/> PHASE4	REVENUE	Training	0.00	HOUR	0.0000	1,200.00	0.00	1,200.00	0.00	0.00	18.00	900.00

Figure: Revenue budget lines with actual and revised values

3. On the **Invoices** tab, review the invoices created for the project. Notice that the second pro forma invoice has not been released yet and has no related accounts receivable invoice.
4. On the **Commitments** tab, review the purchase orders related to the project. Notice that both purchase orders have been processed and assigned the *Closed* status.
5. On the **Cost Budget** tab, pay attention to the values in the **Revised Budgeted Amount**, **Revised Committed Amount** and **Actual Amount** columns, as shown in the following screenshot. Notice the following:
 - The line with the *TRAINING* inventory item is the only line with the actual amount less than the revised budgeted amount, which means that the planned training has not been provided fully.
 - The remaining lines have an actual amount that is equal to the revised budgeted amount and the performance is 100%, which means that all the budgeted materials and services have been provided.
 - The lines with the *INSTALL* inventory item have nonzero committed values, which means these lines have related purchase orders. The **Revised Committed Amount** shows the amount of the purchase (\$240 in

Phase 1, \$320 in Phase 2 and \$400 in Phase 3). The **Committed Invoiced Amount** amount shows the amount on the purchase that has been already billed.



The screenshot shows the Project Cost Budget screen for project HMBAKERY6. The top navigation bar includes tabs for Projects, Tasks, Revenue Budget, Cost Budget, Balances, Commitments, Invoices, Union Locals, Activities, Employees, Equipment, Addresses, Defaults, Attributes, Mailing & Printing, Compliance, and Contacts. The Cost Budget tab is selected. The main area displays a table of cost budget lines. The columns include: Project Task, Inventory ID, Account Group, Description, Original Budgeted Quantity, UOM, Unit Rate, Original Budgeted Amount, Revised Budgeted Quantity, Revised Budgeted Amount, Original Committed Quantity, Revised Committed Quantity, Committed Received Quantity, Committed Invoiced Amount, Committed Open Quantity, Committed Open Amount, Actual Quantity, and Actual Amount. The table lists various tasks such as Site review, Installation, and Training, categorized by Inventory ID like LABOR and MATERIAL, and Account Group like PHASE1 through PHASE4.

Figure: Cost budget lines with actual and revised values

6. Click the line with the *PHASE4* project task and the *TRAINING* inventory item, and on the table toolbar, click **View Transactions** to review the project transactions that correspond to the cost budget line on the *Project Transaction Details* form that opens. Make sure that three project transactions correspond to the cost budget line.
7. Close the browser tab with the form, and return to the project on the *Projects* form.
8. Click the line with the *PHASE2* project task and the *INSTALL* inventory item, and on the table toolbar, click **View Commitments** to review the list of commitments that correspond to the cost budget line.
9. On the *Commitments* (PM306000) form that opens, make sure that two commitments correspond to the cost budget line.
10. Close the browser tab with the form, and return to the project on the *Projects* form.
11. In the selection area of the **Cost Budget** tab, select the **Group by Task** check box. The system groups the cost budget lines by task. You can review the total budgeted values by task. Notice that the *PHASE4* has the performance of 75%, which means not all the budgeted expenses have been incurred within the task.
12. On the **Balances** tab, review the project budget broken down by account group. Notice that the **Actual Amount** in the line with the *REVENUE* group is \$5,700, while the original budgeted amount is \$10,300, which means that not all the budgeted revenue has been billed.

You have finished revising information for the project.

Additional Materials

This part provides supplemental information related to the processes and examples in the course.

Appendix 1: Project Implementation

This appendix provides additional materials for the lessons of Part 1.

Account Groups: Related Reports and Forms

In the following sections, you can find details about report and inquiry forms that provide users with project information broken down by account groups.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Viewing a Budget Summary by Account Groups

If you want to view a budget summary broken down by account groups, you can use the *Budget Summary by Account Group* (PMPV0010) form, which is a pivot table. On this form, you can explore the particular amounts of project budgets; the pivot table uses data provided by the *Budget Details* (PMGI0010) generic inquiry form. The amounts are grouped by types of account groups and then by account groups.

You can edit the pivot table to reorganize and summarize the data of the underlying generic inquiry, so that you can view the data from different perspectives. You can also click any link in the table to explore the details of the budgets on the **Drilldown Filter Applied** filter tab of the *Budget Details* generic inquiry form.

Viewing Project Budget Amounts by Account Groups

If you want to view the account group balances for project tasks grouped by project, use the *Summary* report format of the *Project Balance* (PM621000) report. For each account group, this report shows the total of all amounts posted to all the accounts included in this account group for a particular project. The balances in this report are listed along with their budgeted, revised, and actual quantities and amounts. To view project balances at the project task level, you can use the *Detailed* report format of the report.

Also, you can view the budgeted, revised budgeted, and actual balance of each account group for a particular project on the **Balances** tab of the *Projects* (PM301000) form.

Project Creation and Processing: Project Security Configuration

Many organizations use projects to achieve their business objectives efficiently. An organization may have multiple projects in progress at a given time. By limiting users' access to and visibility of information about particular projects and related transactions, managers can properly organize the work on each project. In Acumatica ERP, you can use roles to provide access to forms based on employees' responsibilities and restriction groups and to limit the visibility of particular projects to only the responsible team, as described in this topic.



In Acumatica ERP, you can configure groups with direct and inverse restriction. In this topic, for simplicity, groups with direct restriction are used in examples. You can use inverse restriction groups in the same way as you use direct restriction groups. For details on the types of restriction groups, see [Types of Restriction Groups](#).

Usage Scenarios

The most common scenarios of securing projects are the following:

- Managing access to particular forms based on users' roles: Each employee involved with a project has specific tasks. You can define user roles that will give employees access to project-related forms based on their responsibilities. For details, see [Access to Forms Based on Roles](#).
- Managing the visibility of particular groups of projects: For more information, see [Visibility of Project Groups](#).



The non-project code specified on the [Projects Preferences](#) (PM101000) form (which is X by default) does not represent an actual project and thus cannot be added to any restriction group.

- Controlling the visibility of sensitive projects by user: If your organization has multiple project teams and multiple employees have the same functional responsibilities in different projects, you can make particular projects available to employees of only a particular project team by using restriction groups. For more information, see [Visibility of Projects by User](#).
- Controlling the visibility of projects by area of the system: If a project should be associated with transactions in a particular functional area of the system (such as accounts payable), you can make the project visible only within this area. For details, see [Visibility of Projects by Area](#).
- Managing the visibility of project transactions by account group: If you need to limit the visibility of sensitive project transactions so that only particular users can see and work with these transactions, you can configure access to the project transactions by account group. For details, see [Visibility of Project Transactions by Account Group](#).

Access to Forms Based on Roles

By using the user security forms, you can configure access rights to the project-related forms for each employee, in accordance with the employee's typical responsibilities. For more information about user roles, see [User Roles: General Information](#).

For example, you can create the following roles for employees of your organization who work with projects:

- Project Manager:* A role for an employee who coordinates projects and is responsible for achieving the project goals. In the system, this person sets up pricing in projects, creates tasks, and configures projects and project templates. This role should have access to project-related forms—that is, the forms in the **Projects** workspace—including those listed in the **Preferences** category. Also, this role may require access to the [Approvals](#) (EP503010) form so that users with this role can approve projects.
- Project Controller:* A role for an employee who controls project transactions, performs allocations, and runs project billing. This role should have full access to project-related forms—that is, the forms in the **Projects** workspace—including those listed in the **Processes** category.
- Project Accountant:* A role for an employee who plans and executes the project budget and enters project transactions. This role should have access to project-related forms—that is, the forms in the **Projects** workspace—including those listed in the **Transactions** and **Profiles** categories. Users with this role may also create project groups.
- Project Team Member:* A role for an employee who works on a project and enters time sheets and time cards. This role should have access to project-related forms—that is, the forms in the **Projects** workspace—

including those listed in the **Transactions** and **Profiles** categories. It should also have access to the forms listed in the **Time Tracking** category of the **Time and Expenses** workspace.

Visibility of Project Groups

By default, employees who have access to the [Projects](#) (PM301000) form can view or edit all the projects available in your organization. You may need to limit the visibility of specific projects to only employees of a particular project team. You can organize projects into *project groups*: groups of projects to which you configure access for a particular set of users by using restriction groups. You can define project groups on the [Project Groups](#) (PM202500) form. By using the row-level security forms of Acumatica ERP, you can configure the system to hide or display particular project groups for particular employees.

For example, you could configure a project group that includes internal projects and then configure restriction groups to make these projects available only for particular users. Alternatively, you could organize projects into project groups, with each project group managed by a particular project manager so that no project manager has access to the projects that belong to other project managers.

As another example, suppose that you are a system administrator for an organization that works with construction projects, internal projects that have been created for financial purposes, and other miscellaneous projects. You have to configure the visibility of project groups to the appropriate users as follows:

- You will configure project visibility for three users: user *AM*, user *PM*, and user *SC*.
- User *AM*, the accounting manager, is allowed to see any project, including internal projects, which should not be visible to other users.
- User *PM*, the project manager, is allowed to work with any projects except for the internal projects.
- User *SC*, the service consultant, does not work with the projects related to construction and cannot see internal projects, but should be able to work with any other project.

To configure this security, the system administrator performs the following general steps in the system:

1. On the [Project Groups](#) form, configures the *INTERNAL* and *CONSTR* project groups.
2. On the [Projects](#) form, assigns the created project groups to projects whose visibility should be controlled (that is, to internal projects and to construction-related projects).
3. On the [Project Access](#) (PM102000) form, creates a new restriction group with the *A* type and adds user *AM* and the *INTERNAL* project group to this restriction group.
4. On the same form, creates a second restriction group with the *A* type and adds user *PM*, user *AM*, and the *CONSTR* project group to this restriction group.

With this configuration, user *AM* can work with all projects, including the construction and internal ones. User *PM* can work with all projects except for the internal projects. User *SC* can work with the company's miscellaneous projects: the projects that are not assigned to the *INTERNAL* or *CONSTR* project group.

As a system administrator, you can further narrow the visibility of particular projects by user, as described in the next section.

Visibility of Projects by User

By using the row-level security forms of Acumatica ERP, you can configure the system to hide or display particular projects for employees, in addition to implementing task-based roles and access based on project groups. For details on restriction groups, see [Restriction Groups in Acumatica ERP](#).

As a simple example, suppose that you need to restrict the visibility of projects to employees in your organization given the following:

- There are two projects in your organization: *Project Y* and *Project Z*.
- User *PM* is a project manager who controls all projects in your organization.

- User *AC* is an accountant who plans budgets and enters project transactions for all projects in your organization.
- Users *E1* and *E2* are engineers who work on *Project Y*.
- Users *E3* and *E4* are engineers who work on *Project Z*.

To configure the visibility of projects according to the listed statements, you would do the following on the [Project Access](#) (PM102000) form:

1. Create two restriction groups of type *A* (with direct restriction): *Group 1* for *Project Y* and *Group 2* for *Project Z*.
2. Include the following entities in Group 1: *Project Y*, and users *PM*, *AC*, *E1*, and *E2*.
3. In Group 2, include *Project Z*, and users *PM*, *AC*, *E3*, and *E4*.

With the restriction groups you have created, the users' visibility of projects would be the following:

- Users *PM* and *AC* can see both *Project Y* and *Project Z*.
- Users *E1* and *E2* can see only *Project Y*.
- Users *E3* and *E4* can see only *Project Z*.

Visibility of Projects by Branch

Restriction groups configured for branches do not affect the visibility of projects that have these branches specified on the **Summary** tab of the [Projects](#) (PM301000) form. However, you can use the project group functionality to configure branch-based restrictions for user access to projects and project-related forms.

As a simple example, suppose that you need to restrict the visibility of projects to employees in your organization, which has the following organizational and project structure:

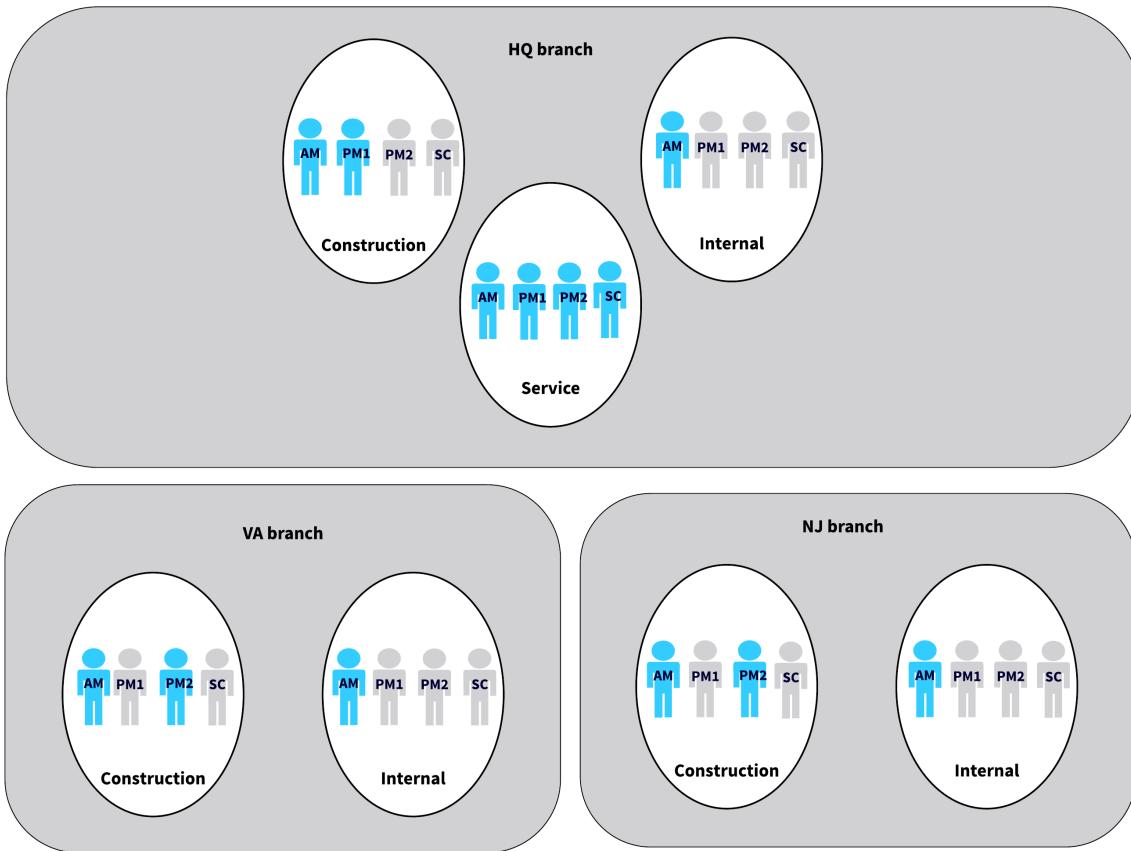
- There are three branches in your organization: *HQ*, *VA*, and *NJ*.
- There are three main types of projects in your organization: construction projects, service projects, and internal projects.
- Service projects are created and managed only in the *HQ* branch.

The following restrictions should be applied to employees of the company:

- User *AM*, the accounting manager, is allowed to see any project in the system, including internal projects, which should not be visible to any other users. This user works with all the projects of all three branches.
- User *PM1*, a project manager, is allowed to work with construction projects in the *HQ* branch. This user can also work with service projects.
- User *PM2*, another project manager, is allowed to work with construction projects in the *VA* and *NJ* branch. This user can also work with service projects.
- User *SC*, the service consultant, works only with service projects.

The following diagram illustrates the structure and restrictions to be configured.

Company structure and project access restrictions



To configure this security, the system administrator performs the following general steps in the system:

1. On the [Project Groups](#) (PM202500) form, configures the following project groups:
 - *HQCONSTR*: Construction projects of the *HQ* branch
 - *HQINTERNAL*: Internal projects of the *HQ* branch
 - *HQSERVICE*: Service projects of the *HQ* branch
 - *VACONSTR*: Construction projects of the *VA* branch
 - *VAINTERNAL*: Internal projects of the *VA* branch
 - *NJCONSTR*: Construction projects of the *NJ* branch
 - *NJINTERNAL*: Internal projects of the *NJ* branch
2. On the [Projects](#) form, assigns the created project groups to projects whose visibility should be controlled based on the type of the project and the branch that is specified for the project on the **Summary** tab of the [Projects](#) form.
3. On the [Project Access](#) (PM102000) form, creates restriction groups, and adds the users and project groups as follows.

The following table lists the restriction groups to be configured.

Restriction Groups	Type	Project Groups	Users
Group 1	A	HQCONSTR, HQINTERNAL,HQSERVICE,VA-CONSTR, VAINTERNAL, NJCONSTR, NJINTERNAL	AM
Group 2	A	HQSERVICE	PM1, PM2, SC
Group 3	A	HQCONSTR	PM1
Group 4	A	VACONSTR,NJCONSTR	PM2

With this configuration, user *SC* will not be able to see construction and internal projects of any branch. User *AM* is the only user that can see internal projects in all branches. User *PM1* can see construction projects of the *HQ* branch and service projects. User *PM2* can see construction projects of the *VA* and *NJ* branches, as well as service projects.

For the users included in restriction groups, visibility restrictions will result in the following:

- The users will not be able to open the restricted projects on the [Projects](#) form.
- The users will not be able to select the restricted projects on any project-related forms—that is, on the forms that are exclusive for the project and construction functionality, such as the [Change Orders](#) (PM308000) form and [Pro Forma Invoices](#) (PM307000) form.
- The users will still be able to work with existing documents that are related to restricted projects (such as financial documents). For example, if an AP bill is related to a project that is restricted for a user, but the user has access to the [Bills and Adjustments](#) (AP301000) form and has access to the branch that is specified on the document level of the bill, the user can see this AP bill.

Visibility of Projects by Area

After you have created a project in Acumatica ERP, the project is available system-wide by default. You can control the visibility of projects within functional areas of the system in the following ways:

- Display or hide the **Project** and **Project Task** boxes and columns on forms: If you want to track project-related data in particular functional areas (for example, accounts receivable and purchase orders), you can configure the system to display the boxes and columns where a user can specify the project-related data only within these areas. To do this, in the **Visibility Settings** section of the [Projects Preferences](#) (PM101000) form, you select the check boxes for the areas where these elements should be displayed and clear the check boxes for the areas where the elements should not be displayed.
- Display or hide a project: If the project transactions of a particular project should be performed within a particular area (for example, inventory), you can make the project visible in this area and hidden in other areas, so that users can select only appropriate projects when they are preparing documents. You can select areas in the **Visibility Settings** section of the **General** tab on the [Projects](#) (PM301000) form. After you have selected an area, users can select the project in documents generated on the related forms, and the release of these documents automatically updates the project data.
- Display or hide the tasks of a project: If the users perform particular tasks of a project in a certain area (for example, the *Warehouse operations* task requires users to enter inventory transactions, and the *Customer payments* task requires users to enter accounts receivable documents), you can select the areas where the task will be displayed in the settings of the project task. You select these areas in the **Visibility Settings** section of the **General Info** tab on the [Project Tasks](#) (PM302000) form.

Visibility of Project Transactions by Account Group

By using the *Project Transaction Visibility by Account Group* (PM103000) form, you can configure the system to hide particular lines of project transactions that contain sensitive information by configuring user access by account group.



The restrictions configured for project account groups do not affect the visibility of account groups on the **Balances** tab of the *Projects* (PM301000) form. That is, the system still shows the total balances by each account group, regardless of the access rights of the signed-in user. A user with insufficient access rights for a particular account group will see the total balance of each account group, but will not be able to review the detail information for the project transactions that include this account group.

If you configure a user to have no access to a particular account group, this user cannot enter and release project transactions that include lines with this account group on the *Project Transactions* (PM304000) form. Also, on the following forms, the user is not able to view transactions that include the restricted account group in the **Debit Account Group** or **Credit Account Group** box:

- *Project Transactions* (PM304000)
- *Project Transaction Details* (PM401000)
- *Project Transactions* (PM633000)
- *Project Cost History* (PM706230)



On any of these forms, if any transaction lines are hidden because a user is denied access to the account group, the system displays a warning and calculates the totals shown on the forms based on the visible transaction lines.

For example, suppose that you are a system administrator, and you have to configure the visibility of project transactions to the appropriate users considering the following:

- There are two users for which you need to configure the visibility of project transactions in your organization: User *A* and User *P*.
- User *A*, the accounting manager who controls work of the accounting department, is allowed to see all financial information. This user enters project expenses related to employee labor.
- User *P*, the project manager who manages the project is allowed to enter and view project transactions for project expenses related to cost of materials and subcontract work. The user must not be able to see sensitive information related to employee labor for the project

To configure the described security scenario, the system administrator does the following in the system:

1. On the *Account Groups* (PM201000) form, configures the *MATERIAL* (for material expenses), *SUBCON* (for subcontract expenses), and *LABOR* (for employee labor expenses) account groups, and maps the appropriate general ledger accounts to these groups.
2. On the *Project Transaction Visibility by Account Group* (PM103000) form, creates a new restriction group with the *B Inverse* type and adds User *P* and the *LABOR* account group to this restriction group.

With this configuration, User *A* enters project transactions with employee labor related to project and selects the *LABOR* account group. Access to this account group is restricted for User *P*, who is able to review the project transaction lines with the *MATERIAL* and *SUBCON* account groups but cannot view the lines with *LABOR* account group on data entry forms and in reports.

Forms for Project Security

In the following table, you can find the list of the forms that you can use to manage restriction groups with projects. The table also includes the task that you can perform by using each form.

For information about how to add or remove objects from a restriction group, see [Operations with Restriction Groups](#).

Table: Forms for Project Security

Task	Form
To initially configure the visibility of a project to users	Project Access (PM102000)
To change the visibility of a project in multiple restriction groups	Restriction Groups by Project (PM102010)
To change the visibility of a project group in multiple restriction groups	Restriction Groups by Project Group (PM102020)
To change the visibility of projects to a user in multiple restriction groups	Restriction Groups by User (SM201035)
To change the visibility of project transactions with particular account groups to a user in multiple restriction groups	Restriction Groups by Account Group (PM103000)

Project Creation and Processing: Related Report and Inquiry Forms

In the following sections, you can find details about the reports you may want to review to gather information about projects.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Finding Projects Related to a Customer

You can prepare a report with all the projects related to a particular customer on the [Projects](#) (PM631000) report form. In the prepared report, the projects are listed, along with their descriptions, statuses, and start dates.

Printing the Project Balance

While you are viewing a project on the [Projects](#) (PM301000) form, you can prepare a printable document showing the project balance at the project task level of detail; to do this, you click **Print Project Balance** on the More menu (under **Reports**). The system opens the printable document with the project balance on the [Project Balance](#) (PM621000) report. Then you can review the project balance, which is grouped by project tasks.

Project Tasks: Related Report and Inquiry Forms

In the following sections, you can find details about the reports and inquiry forms you may want to review to gather information about particular project tasks.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Finding Project Transactions Related to a Project Task

To find the project transactions that are related to a particular project task, you can view the cost budget lines or revenue budget lines grouped by project task. To do this, you select the **Group by Task** check box on the **Cost Budget** tab or **Revenue Budget** tab, respectively, of the [Projects](#) (PM301000) form. Then you click the aggregated line on the tab, and on the table toolbar, click **View Transactions**. The system opens the [Project Transaction Details](#) (PM401000) form with the list of project transactions that are related to this project and project task.

Printing Task Information

To generate a printable report with the project task information, you use the [Project Tasks](#) (PM632000) report form. The report provides a list of either all the project tasks, grouped by customer, or only the project tasks for the customer you select. You can also prepare a report with the project tasks of the projects assigned to a particular project manager.

Appendix 2: Capturing Costs for Projects

This appendix provides additional materials for the lessons of Part 2.

Project Transactions: Generated Transactions

The release of project transactions can generate the corresponding general ledger transactions; the release of general ledger transactions can also generate the corresponding project transactions. The generated general ledger transactions and project transactions are described in the following sections.

General Ledger Transactions Generated on Project Transaction Release

When a project transaction with the **Debit Account** and **Credit Account** specified on the [Project Transactions](#) (PM304000) form is released, if the **Amount** of the transaction is positive, the system generates a batch of the general ledger transactions shown in the following table.

Account	Source of Account	Project Budget Key	Debit	Credit
Debit account	The project transaction	The project, project task, and cost code in the project transaction line	Amount	0.00
Credit account	The project transaction	The project, project task, and cost code in the project transaction line	0.00	Amount

If the **Amount** of the project transaction is negative on the [Project Transactions](#) form, on the release of this transaction, the system generates a batch of the general ledger transactions shown in the following table.

Account	Source of Account	Project Budget Key	Debit	Credit
Debit account	The project transaction	The project, project task, and cost code in the project transaction line	0.00	Amount
Credit account	The project transaction	The project, project task, and cost code in the project transaction line	Amount	0.00

You can view the details of the batch associated with the release of a project transaction by clicking the link in the **GL Batch Nbr.** column on the [Project Transactions](#) form. The system displays the batch on the [Journal Transactions](#) (GL301000) form.

Project Transactions Generated on Release of the General Ledger Batch

When a batch of general ledger transactions is released, the system generates the project transactions shown in the following table.

Project Budget Key	Account Group	Debit Account	Credit Account	Amount
The project, project task, and cost code in the GL transaction line	The account group linked to the debit account	Account	Empty	Amount



The sign of the amount of the created project transaction depends on the sign of this amount in the GL transaction line and on the operation in this line. For more information, see [Project Transactions: GL Transactions Related to Projects](#).

You can review the created transactions on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project in the **Project** box. In the table, you can find the project transactions created on the release of the batch of GL transactions by the reference number of the batch in the **GL Batch Nbr.** column.

Project Transactions: Related Reports and Forms

In the following sections, you can find details about the reports and forms you may want to review to gather information related to project transactions.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Reviewing Project Transactions and Corresponding GL Batches

You can review the list of all the corresponding transactions of a project on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project, as well as the project task, account group, inventory item, and cost code to narrow the listed project transactions.

You can also find the batch of general ledger transactions that correspond to any listed project transaction on this form. In the table, for a particular transaction, you can find the reference number of the corresponding batch of GL transactions in the **GL Batch Nbr.** column. You click the link in this column to view the details of the batch on the [Journal Transactions](#) (GL301000) form.

Printing Project Transactions

You can prepare the printable list of project transactions related to a particular project using the [Project Transactions](#) (PM633000) report.

Reviewing the Actual Project Amounts

While you are viewing a particular project on the [Projects](#) (PM301000) form, you can quickly get more information about a project budget line. That is, for any line on the **Revenue Budget** or **Cost Budget** tab with a nonzero actual amount, you can view the project transactions. To review these project transactions, you click the project budget line; then on the table toolbar, you click **View Transactions**, and the system opens the [Project Transaction Details](#) (PM401000) form.

Reviewing Project Balances

You can review the project balance broken down by account group on the **Balances** tab of the [Projects](#) (PM301000) form. To review the corresponding project transactions of an account group, you click the line; then on the table toolbar, you click **View Transactions**. The system opens the [Project Transaction Details](#) (PM401000) form.

Project Transactions: Mass Processing of Documents

This topic explains how to perform mass-processing operations related to project transactions, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Releasing Project Transaction

To mass-release project transactions, you use the [Release Transactions](#) (PM501000) form. On this form, you select the unlabeled check boxes in the rows of the transactions to be released and click **Release** on the form toolbar to process the selected transactions; alternatively, you can click **Release All** to process all the transactions shown in the table.

Project Inventory Tracking by Warehouse Location: Generated Transactions

The following sections describe the GL transactions and project transactions that are generated for sales and purchases of stock items and non-stock items requiring receipt for projects.



For the list of transactions that are generated for non-stock items not requiring receipt that are being purchased for projects, see [Purchasing Services for Projects: Generated Transactions](#).

GL Transactions Generated on Release of an Inventory Receipt

On release of a project-related purchase receipt with a stock item, the corresponding inventory receipt is created. When the inventory receipt is released, the system creates the following batch of general ledger transaction.

Account	Source of Account	Project	Debit	Credit
Inventory account	Posting class of the item	X (non-project code)	Received amount (quantity * item price)	0.00
PO accrual account	Posting class of the item	X (non-project code)	0.00	Received amount (quantity * item price)

On release of a project-related purchase receipt with a non-stock item requiring receipt, the corresponding inventory receipt is created. When the inventory receipt is released, the system creates the following batch of general ledger transaction.

Account	Source of Account	Project Budget Key	Debit	Credit
Expense account	Inventory item	Project, project task, and cost code in the inventory receipt line	Received amount (quantity * item price)	0.00
Inventory account	Inventory item	X (non-project code)	0.00	Received amount (quantity * item price)

On the **Financial** tab of the [Receipts](#) (IN301000) form, you can click the link in the **Batch Nbr.** box to view the details of the general ledger transaction on the [Journal Transactions](#) (GL301000) form.

Project Transaction Generated on Release of the Inventory Receipt

On release of the general ledger transaction which was created on release of the inventory receipt with a stock item, the system generates no project transaction.

On release of the general ledger transaction which was created on release of the inventory receipt with a non-stock item requiring receipt, the system generates the following project transaction.

Project Budget Key	Account Group	Debit Account	Amount
Project, project task, inventory item, and cost code in inventory receipt line	Account group mapped to the Expense account of the item	Expense account of the item	Amount

You can review the created project transaction on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project in the **Project** box.

GL Transactions Generated on Release of an Inventory Issue

On release of an inventory issue with a stock item issued for a project, the system generates a batch of general ledger transactions.

Account	Source of Account	Project Budget Key	Debit	Credit
PO Accrual account	Posting class of the item	X (non-project code)	0.00	Issued amount (quantity * item cost)
Expense account	Reason code in the inventory issue line	Project, project task, and cost code in the inventory issue line	Issued amount (quantity * item cost)	0.00

You can view the reference number of the GL batch in the **Batch Nbr.** box on the **Financial** tab of the [Issues](#) (IN302000) form. You can click the link in this box to view the details of the batch on the [Journal Transactions](#) (GL301000) form.

Project Transaction Generated on Release of the Inventory Issue

On release of the general ledger transaction created on release of the inventory issue with a stock item for project, the system generates the following project transaction that updates the project's actual amounts:

Project Budget Key	Account Group	Debit Account	Amount
Project, project task, inventory item, and cost code in inventory issue line	Account group mapped to the GOGS account	COGS account of the item	Amount

You can review the created project transaction on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project in the **Project** box.

Purchasing Services for Projects: Generated Transactions

When you process an accounts payable bill with a service item for a project, on release of the AP bill, the system generates the GL and project transactions described in the following sections.

GL Transactions Generated on AP Bill Release

When an accounts payable bill with a service item is released, the system creates a batch of the general ledger transactions shown in the following table.

Account	Source of Account	Project Budget Key	Debit	Credit
Accounts payable account	Vendor	X	0.00	Amount

Account	Source of Account	Project Budget Key	Debit	Credit
Expense account	Item	Project, project task, cost code	Amount	0.00

On the **Financial** tab (**Link to GL** section) of the [Bills and Adjustments](#) (AP301000) form, you can click the link in the **Batch Nbr.** box to view the details of the batch on the [Journal Transactions](#) (GL301000) form.

Project Transaction Generated on AP Bill Release

When a batch of general ledger transactions is created on release of an accounts payable bill, the system also generates the project transaction shown in the following table.

Debit Account	Credit Account	Source of Account	Amount
Expense account	Empty	GL transaction	Amount

You can review the created project transaction on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project in the **Project** box. In the table, you can find the project transaction created on release of the accounts payable bill by the reference number of the AP bill in the **Orig. Doc. Nbr.** column.

Appendix 3: Project Billing

This appendix provides additional materials for the lessons of Part 3.

Pro Forma Invoices: Manual Creation of Pro Forma Invoices

Typically, the system automatically creates pro forma invoices for a project during project billing. However, you can also manually create pro forma invoices independently of the established billing schedule. For example, you may need to create a manual pro forma invoice to record ad hoc expenses that initially were not planned in the project budget. The following sections describe how you enter and adjust pro forma invoices and how manually created pro forma invoices affect the project budget of the respective project.

Manual Creation of a Pro Forma Invoice

To create a new pro forma invoice, you click **Add New Record** on the form toolbar of the [Pro Forma Invoices](#) (PM307000) form and select the project to which the pro forma invoice is related. Then you add progress billing and time and material lines to the pro forma invoice.

When you are entering a line on the **Project Billing** tab and you specify its project budget key settings, the system searches for the corresponding line of a revenue project budget. If the system finds a line in the budget of the project, it loads the default values from the found budget line. If no such line exists, the system inserts the default values in the pro forma invoice line based on the selected project task and adds a new line with the project budget key from the pro forma invoice line to the revenue budget. For more information on adding new revenue budget lines, see [Project Transactions: Update of the Project Budget Structure](#).



You can manually add progress billing lines and adjust the progress billing lines in the pro forma invoices that have been generated by the billing procedure as well. That is, you can configure a billing rule to create zero pro forma invoices (that is, the pro forma invoices with a pending invoice amount of zero), and then enter the billed quantities and amounts directly in the lines of the pro forma invoice that has been generated by the billing procedure.

As an alternative to manually entering progress billing lines, you can load all applicable lines automatically by clicking **Load Lines** on the table toolbar of the **Progress Billing** tab. The system loads the lines from the revenue budget of the project in which an active or completed project task of the *Revenue Task* or *Cost and Revenue Task* type is specified and the billing rule assigned to the project task includes the progress billing step. If a line with the particular project budget key already exists in the pro forma invoice, the system will skip adding it.

To add time and material lines with unbilled project transactions, on the table toolbar of the **Time and Material** tab, you click **Upload Unbilled Transactions**; you then select the lines with project transactions to be billed in the dialog box that opens. The lines will be added to the **Time and Material** tab and linked to the corresponding project transactions. Alternatively, you can enter a new time and material line manually; this line will not have a link to any project transaction.

After you have added all lines to the pro forma invoice and saved it, the system shows this pro forma invoice on the **Invoices** tab of the *Projects* (PM301000) form for the corresponding project. The amounts and quantities from the pro forma invoice lines update the **Draft Invoice Amount** and **Draft Invoice Quantity** columns, respectively, on the **Revenue Budget** tab.

Processing of a Manual Pro Forma Invoice

The processing of a manually created pro forma invoice has no differences from the processing of a pro forma invoice that is generated by the billing procedure. The following processes are fully supported for a manual pro forma invoices:

- Sequential release of the project invoices. For more information, see [Pro Forma Invoices: General Information](#).
- Generation of AR documents on release of the pro forma invoices. For more information, see [Pro Forma Invoices: General Information](#).
- Correction of the pro forma invoices. For more information, see [Project Invoice Correction: General Information](#).
- Preparation of American Institute of Architects (AIA) reports based on the pro forma invoice. For more information, see [Construction Reports: AIA Reports](#).
- Management of retainage in AP and AR documents. For more information, see [AR Invoices with Retainage: General Information](#).

Pro Forma Invoices: Generated Transactions

The release of a pro forma invoice does not generate general ledger transactions or project transactions directly. When you release the pro forma invoice, the system creates a corresponding accounts receivable invoice with all the information copied from the pro forma invoice. On release of the accounts receivable invoice, the system generates the general ledger transactions and project transactions described in the following sections.

GL Transactions Generated on Release of an AR Invoice

When an accounts receivable invoice that has been created based on a pro forma invoice is released, the system generates a batch of the general ledger transactions shown in the table below.

The system uses the following accounts as the source accounts in the GL batch it creates:

- The asset account, which is specified in the **AR Account** box on the **Financial** tab (**Link to GL** section) of the *Invoices and Memos* (AR301000) form.
- The income account, which is specified for each line in the **Account** column on the **Details** tab of the *Invoices and Memos* form. The system populates the income account from the corresponding pro forma invoice; the income account was determined by billing rules during the creation of the pro forma invoice.

Account	Source of Account	Debit	Credit
Accounts receivable account	The asset account	Amount	0.00
Sales account	The income account	0.00	Amount

You can view the details of the batch associated with the release of an invoice by clicking the link in the **Batch Nbr.** box on the **Financial** tab (**Link to GL** section) of the *Invoices and Memos* form. The system opens the batch on the *Journal Transactions* (GL301000) form.

Project Transactions Generated on Release of the GL Batch

On release of the batch of general ledger transactions, the system generates a corresponding batch of the project transactions shown in the following table.

Project and Project Task	Debit Account	Account Group	Amount
Project and project task in the GL batch line	Sales account in the GL batch line	Account group mapped to Sales account	-(Amount)

You can review the created transactions on the *Project Transaction Details* (PM401000) form. In the Selection area of this form, you select the project in the **Project** box. In the table, you can find the project transactions created on release of the accounts receivable invoice by the reference number of the AR invoice in the **Orig. Doc. Nbr.** column.

Pro Forma Invoices: Related Reports and Forms

In the following sections, you can find details about the reports and forms you may want to review to gather information about pro forma invoices.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Reviewing Project Transactions

You can review the list of project transactions that correspond to a pro forma invoice line on the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form. To review these project transactions, you click the line; then on the table toolbar, you click **View Transaction Details**, and the system opens the **Transaction Details** dialog box.

Printing a Pro Forma Invoice

You can print a pro forma invoice that you are viewing on the *Pro Forma Invoices* (PM307000) form by clicking **Print** on the More menu. The system opens the printable form of the invoice, which is project-specific and specified for

the PROFORMA mailing of the project on the **Mailing & Printing** tab of the [Projects](#) (PM301000) form. By default, this is the [Pro Forma Invoice](#) (PM642000) report. You can review the invoice and print it.

The contact information of the customer to whom the pro forma invoices should be sent is specified in the **Bill-To Contact** and **Bill-To Address** sections of the **Addresses** tab of the [Pro Forma Invoices](#) form. This information is copied to each pro forma invoice related to the project from the **Bill-To** and **Bill-To Address** sections of the **Summary** tab of the [Projects](#) form and can be modified at the invoice or project level.

Reviewing the Project Transactions Related to an AR Invoice

You can review the project transactions that were created on release of an accounts receivable invoice. To do this, while you are viewing the accounts receivable invoice on the [Invoices and Memos](#) (AR301000) form, you click **Project Transactions** on the More menu (under **Inquiries**). The system opens the [Project Transaction Details](#) (PM401000) form with reference number and type of the accounts receivable invoice specified in the Selection area.

Pro Forma Invoices: Mass-Processing of Documents

This topic explains how to process multiple pro forma invoices, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Validating Addresses

You can validate addresses for multiple projects and project-related documents (pro forma invoices and project quotes) on the [Validate Addresses in Project Documents](#) (PM507000) form. This form is available if the *Address Validation Integration* feature is enabled on the [Enable/Disable Features](#) (CS100000) form and an address provider is configured on the [Address Providers](#) (CS103000) form.

On the [Validate Addresses in Project Documents](#) form, you select the form in which the address records were entered in the **Creation Form** box, and select the unlabeled check boxes in the rows to be processed in the table. Then you click **Validate** on the form toolbar. To instead validate all the listed address records, you click **Validate All** on the form toolbar.

Mass-Billing Projects

You can initiate billing for multiple projects on the [Run Project Billing](#) (PM503000) form; this billing entails the creation of multiple invoices. A project is listed on the form only if the invoice date is after its next billing date, which is specified on the **Summary** tab of the [Projects](#) (PM301000) form.

To initiate billing for particular projects, you select the unlabeled check boxes in the rows of the projects to be processed in the table on this form, and click **Process** on the form toolbar. To instead initiate billing for all the listed projects, you click **Process All** on the form toolbar.

During processing, the system generates project invoices for the selected projects. Pro forma invoices will be created for only those projects that have the **Create Pro Forma Invoice on Billing** check box selected on the **Summary** tab of the [Projects](#) (PM301000) form; AR invoices will be created for projects for which this check box is cleared. The system creates project invoices with the date that is specified in the **Invoice Date** box in the Selection area of the form.

Mass-Releasing Pro Forma Invoices

Pro forma invoices can be mass-released. To release multiple pro forma invoices at a time, you open the [Release Pro Forma Invoices](#) (PM506000) form, select the unlabeled check boxes in the rows of the pro forma invoices to be processed, and click **Release** on the form toolbar. To instead release all the listed pro forma invoices, you click **Release All** on the form toolbar.

Mass-Recalculating Pro Forma Invoices

In some cases, you may need to validate the project balances to make draft invoice amounts and quantities of the project budget match the values of the change orders.

To recalculate budget values affected by change orders, on the *Recalculate Project Balances* (PM5040000) form, you select the **Recalculate Draft Invoice Amount and Quantity** check box in the Selection area. You then select the unlabeled check boxes in the rows of the projects to be processed and click **Process** on the form toolbar to process the selected projects. Alternatively, you can click **Process All** to process all the projects shown in the table.

For more information, see [Project Budget: Recalculation of the Project Balances](#).

Grouping Invoices: Related Reports and Inquiry Forms

In the following sections, you can find details about the reports and forms you may want to review to gather information about project billing and grouped invoices.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Reviewing Project Transactions

You can review the list of corresponding project transactions of a pro forma invoice line on the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form. To review the corresponding project transactions of a line, you click the line, on the table toolbar, click **View Transaction Details**, the system opens the *Project Transaction Details* (PM401000) form.

Printing Invoices

You can print a pro forma invoice by clicking **Print** on the More menu of the *Pro Forma Invoices* (PM307000) form. The system opens the printable form of the invoice that is project-specific and specified for the PROFORMA mailing of the project on the **Mailing & Printing** tab of the *Projects* (PM301000) form. By default, this is the *Pro Forma Invoice* (PM642000) form.

Appendix 4: Budget and Balances

This appendix provides additional materials for the lessons of Part 4.

Project Budget: Unit Rate in Budget Lines

The following sections describe the rules that the system uses for selecting the unit rate to be inserted in budget lines.

New Revenue Budget Lines

When you select an inventory item in a newly created revenue budget line—that is, a line with an account group of the income type on the **Revenue Budget** tab of the *Projects* (PM301000) form—the system automatically fills in the unit rate of the line with the applicable item price. The system searches for a price of the inventory item that

is effective on the start date of the project. For more details on how the system searches for the price, see [Sales Prices: Rules of Price Selection](#).

If the *Multicurrency Projects* feature is enabled on the [Enable/Disable Features](#) (CS100000) form, the system searches for an applicable sales price in the project currency by using the rate that is effective on the start date of the project. The project currency is specified in the **Project Currency** box on the **Summary** tab of the [Projects](#) form. For more information, see [Multicurrency Projects: Unit Rates in the Project Budget](#).

New Cost Budget Lines

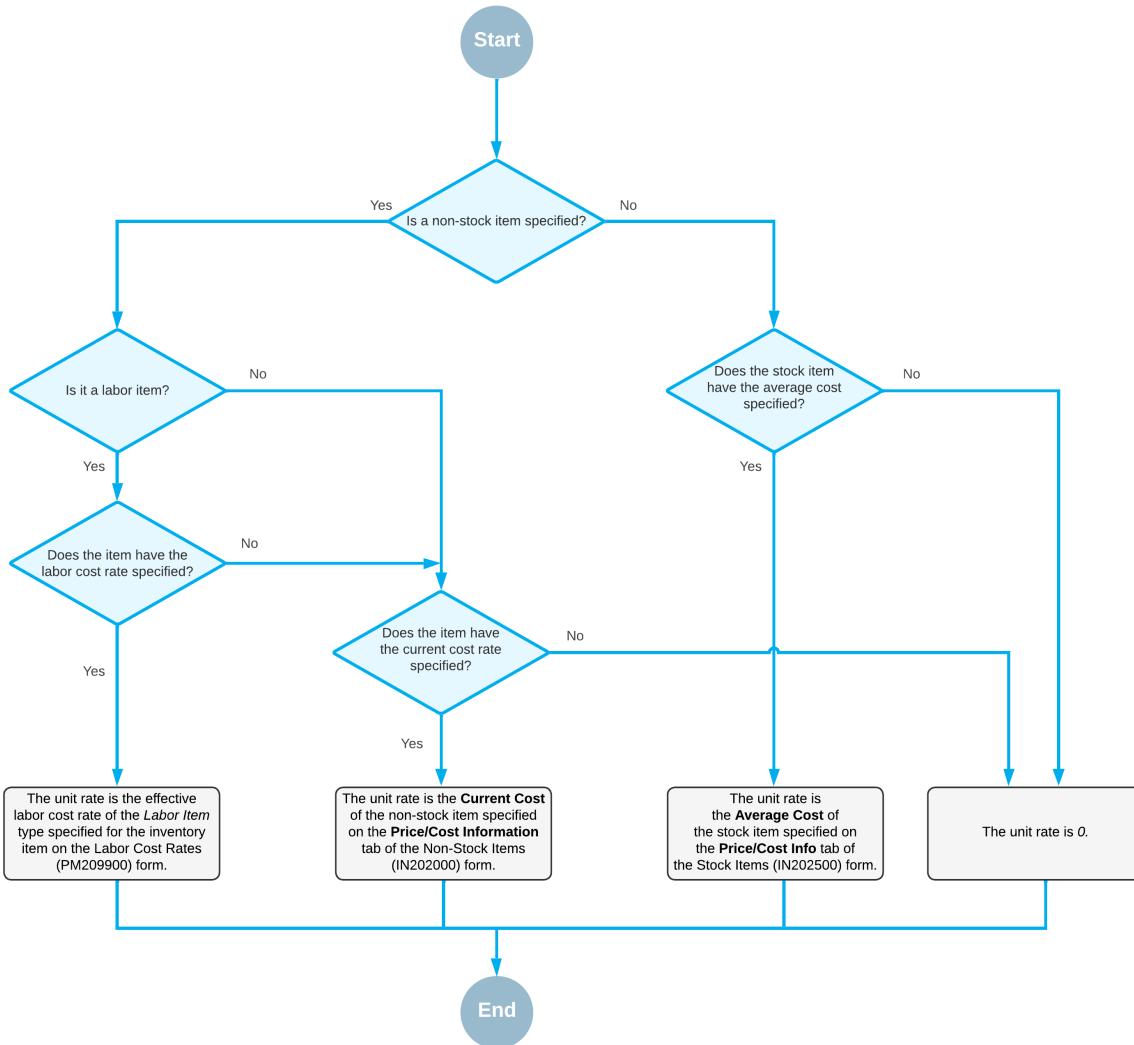
When you select an inventory item in a newly created cost budget line—that is, a line with the account group of the expense type on the **Cost Budget** tab of the [Projects](#) (PM301000) form—the system automatically fills in the unit rate of the line with the applicable item cost. The system searches for the applicable item cost depending on the type of the item selected in the line:

- For a stock item, the system inserts the **Average Cost** of the item from the **Price/Cost** tab of the [Stock Items](#) (IN202500) form.
- For a non-stock item with the *Labor* type selected in the **Type** box on the **General** tab (**Item Defaults** section) of the [Non-Stock Items](#) (IN202000) form, the system searches for the applicable labor cost rate. That is, it searches for a rate of the *Labor Item* type on the [Labor Rates](#) (PM209900) form that is associated with the same inventory item and has an effective date that is after the document date or the start date of project.
- For other types of non-stock items (and for non-stock items with the *Labor* type if no effective labor cost rate was found), the system specifies the **Current Cost** of the item from the **Price/Cost** tab of the [Non-Stock Items](#) form.

If no applicable price has been found, the system inserts 0 as the unit rate.

The following diagram illustrates the logic the system uses to select the cost for an inventory item.

Selection of unit rates in the project budget lines with a specified inventory item



Budget Lines Based on a Project Quote

If the *Project Quotes* feature is enabled on the [Enable/Disable Features](#) (CS100000) form and a project was created based on a project quote, in each created budget line on the [Projects](#) (PM301000) form, the system inserts the unit rate as follows:

- In a cost budget line, the unit rate is inserted based on the unit cost of the corresponding estimation line of the project quote on the **Estimation** tab of the [Project Quotes](#) (PM304500) form.
- In a revenue budget line, the system calculates the unit rate based on the values in the estimation lines of the project quote on the **Estimation** tab of the [Project Quotes](#) form by using the following formula: $\text{Unit Rate} = \text{Amount} / \text{Quantity}$, where $\text{Amount} = \text{Ext. Price} - \text{Discount Amount}$.

Budget Lines Based on a Change Order

If the *Change Orders* feature is enabled on the [Enable/Disable Features](#) (CS100000) form and the **Change Order Workflow** check box is selected for the project on the **Summary** tab of the [Projects](#) (PM301000) form, in each created budget line of the project, the system specifies the unit rates as follows:

- In a cost budget line created based on the change order, the unit rate is copied from the corresponding change order line.
- In a revenue budget line created based on the change order, the unit rate is copied from the corresponding change order line.

Project Budget Control: Overrun Notifications During Document Entry

You can configure the system to notify a user if the amount in a line of the document they are entering would exceed the budget of the corresponding project budget line.

To do this, you select *Show a Warning* in the **Budget Control** box on the **General** tab of the [Projects Preferences](#) (PM101000) form. When a user enters a project-related document, the system will generate a warning if a line amount exceeds the cost budget of the corresponding project budget line. These warnings can be generated when a user is entering any of the following documents:

- A purchase order of the *Normal* or *Project Drop-Ship* type and the *On Hold* or *Pending Approval* status on the [Purchase Orders](#) (PO301000) form.
- An AP bill with the *On Hold*, *Pending Approval*, or *Balanced* status on the [Bills and Adjustments](#) (AP301000) form.
- A change order with the *On Hold* or *Pending Approval* status on the [Change Orders](#) (PM308000) form.
- A subcontract with the *On Hold* or *Pending Approval* status on the [Subcontracts](#) (PO301000) form.



Subcontracts are available in the system if the *Construction* feature is enabled on the [Enable/Disable Features](#) form. For more information about the processing of subcontracts, see [Subcontracts: General Information](#).

The warning message in a document line shows you how much the line amount exceeds the budget. The system compares the document line with the corresponding cost budget line of the project and shows you the following amounts in the warning:

- *Budgeted*: The revised budgeted amount of the budget line.



If the project budget has no corresponding budget line with the same project budget key, the revised budgeted value of the line used in overrun calculation is 0.

- *Consumed*: The amount that has been spent already—that is, the sum of the actual amount and the committed open amount of the budget line.
- *Document*: The total amount (the **Ext. Cost** minus the **Discount Amount**) of all the document lines that impact the same budget line, including the current document.
- *Available*: The amount of the budget that is available for the document. The available amount is calculated as the difference between the *Budgeted* amount and the *Consumed* amount.
- *Remaining*: The amount that exceeds the budget. The remaining amount is calculated as the difference between the *Available* and *Document* amounts.

For example, suppose that you have budgeted a cost of \$400 for the project (the budgeted amount). You have already spent \$150 (the consumed amount). When you create an AP bill for the project in the amount of \$300 (the document amount) and specify the project budget key in the document line, the system will display the following warning:

Budgeted: 400.00, Consumed: 150.00, Available: 250.00, Document: 300.00, Remaining: -50.00

The warning does not prevent you from processing the document; it just informs you that by processing the document, you will exceed the budgeted values.

You can see the list of all document lines that potentially could exceed the budget of a selected project on the [Potential Project Budget Overruns](#) (PM404000) form.

Project Budget Control: Budget Locking

When you have decided to prevent any changes to the original budgeted values of the project, you click the **Lock Budget** command on the More menu of the [Projects](#) (PM301000) form. When the project is locked, the following columns on the **Revenue Budget** and **Cost Budget** tabs become read-only:

- **Original Budgeted Quantity**
- **Unit Rate**
- **Original Budgeted Amount**

You can still edit the budgeted values in the **Revised Budgeted Quantity** and **Revised Budgeted Amount** columns.

If you decide to again allow changes to be made to the project's original budgeted values, you unlock the project budget by clicking the **Unlock Budget** command on the More menu of the [Projects](#) form.

Project Budget: Related Reports and Inquiry Forms

In the following sections, you can find details about the reports and inquiry forms you may want to review to gather information about the project budget.



If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Reviewing the Actual Project Amounts

While you are viewing a particular project on the [Projects](#) (PM301000) form, you can quickly get more information about a project budget line. That is, for any line on the **Revenue Budget** or **Cost Budget** tab with a nonzero actual amount, you can view the project transactions. To review these project transactions, you click the project budget line; then on the table toolbar, you click **View Transactions**, and the system opens the [Project Transaction Details](#) (PM401000) form.

Reviewing Project Balances

You can review the project balance broken down by account group on the **Balances** tab of the [Projects](#) (PM301000) form. To review the corresponding project transactions of an account group, you click the line; then on the table toolbar, you click **View Transactions**. The system opens the [Project Transaction Details](#) (PM401000) form.

Reviewing the Commitments of a Project

You can review the list of a project's commitments on the [Commitments](#) (PM306000) form. In the Selection area of this form, you select the project; you can also filter the selected transactions by selecting a project task, an account group, and an inventory item.



The form displays the commitments associated with the branches to which your user has sufficient access rights.

Reviewing Commitments by Project Budget Line

You can review the commitments corresponding to a project budget line with a nonzero committed value on the **Cost Budget** tab of the [Projects](#) (PM301000) form. To review the corresponding commitments of a line, you click the line; then on the table toolbar, you click **View Commitments**, and the system opens the [Commitments](#) (PM306000) form.

Reviewing Commitments by Account Group

You can review the project budget broken down by account groups on the **Balances** tab of the [Projects](#) (PM301000) form. To review the commitments corresponding to an account group, you click a line; then on the table toolbar, you click **View Commitments**, and the system opens the [Commitments](#) (PM306000) form.

Printing the Project Balance

While you are viewing a project on the [Projects](#) (PM301000) form, you can prepare a printable document showing the project balance at the project task level of detail; to do this, you click **Print Project Balance** on the More menu (under **Reports**). The system opens the printable document with the project balance on the [Project Balance](#) (PM621000) report. Then you can review the project balance, which is grouped by project tasks.

Reviewing Project Transactions

You can review the list of all transactions corresponding to a project on the [Project Transaction Details](#) (PM401000) form. In the Selection area of this form, you select the project to review all the corresponding project transaction. You can also use the selection criteria to filter the project's transactions by cost code and inventory ID.

Viewing a Budget Summary by Account Groups

If you want to view a budget summary broken down by account groups, you can use the [Budget Summary by Account Group](#) (PMPV0010) form, which is a pivot table. On this form, you can explore the particular amounts of project budgets; the pivot table uses data provided by the [Budget Details](#) (PMGI0010) generic inquiry form. The amounts are grouped by types of account groups and then by account groups.

You can edit the pivot table to reorganize and summarize the data of the underlying generic inquiry, so that you can view the data from different perspectives. You can also click any link in the table to explore the details of the budgets on the **Drilldown Filter Applied** filter tab of the [Budget Details](#) generic inquiry form.

Reviewing Potential Project Budget Overruns

You can review all the amounts that may potentially exceed the budget of a project on the [Potential Project Budget Overruns](#) (PM404000) form. In the Selection area of this form, you select the project and the type of the documents to be included in calculations. You then click **Calculate** on the form toolbar. You can also filter the selected overruns by project task and date range.

Project Budget: Mass Processing of Documents

This topic explains how to perform mass-processing operations related to project budgets, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Recalculating Project Budgets

In some cases, you may need to validate the project budgets to bring them in line with the underlying transactions. This might be useful, for instance, if project data has been modified through external tools or import scenarios.

To recalculate project budgets, you use the *Recalculate Project Balances* (PM504000) form. On this form, you select the unlabeled check boxes in the rows of the projects to be processed and click **Process** on the form toolbar to process the selected projects; alternatively, you can click **Process All** to process all the projects shown in the table. For more information, see [*Project Budget: Recalculation of the Project Balances*](#).