End-User Course

Projects

Project Billing and Change Management 2025 R1

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Acumatica
The Cloud ERP

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How to Use This Course

This end-user course provides a set of lessons that illustrate project accounting processes in a midsize company. In the course, you will learn about the project accounting processes in Acumatica ERP. After you complete the course, you will have an understanding of the way the project accounting capabilities of Acumatica ERP are integrated with the general ledger. You will learn about the functionality of the billing rules that are used for project billing and the ways you can manage the billing process. Also, you will learn how to control changes to the project's budgeted values and commitments. You will also learn how to use time activities and time cards to track time spent on projects.

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 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: *brawner*
2. Lesson 2: *brawner*
3. Lesson 3: *brawner*
4. Lesson 4: *brawner*
5. Lesson 5: *brawner*
6. Lesson 6: *brawner*
7. Lesson 7: *brawner*
8. Lesson 8: *brawner*, *waite*
9. Lesson 9: *brawner*

10. Lesson 10: *gibbs*, *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: Advanced Billing

In Acumatica ERP, if you need to bill customers for the services provided as a part of a project, you can generate invoices based on the information collected in the project's accounting data. This part describes the advanced scenarios of billing, including billing with rates, modifying of existing billing rules, grouping of invoices, and correcting the prepared invoices.

Lesson 1: Billing Projects for Progress and 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.

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*.

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*.

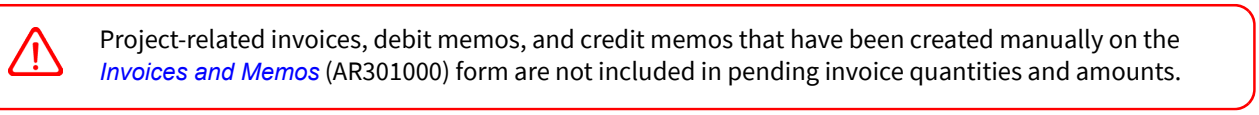
Each revenue budget line is billed based on amount or quantity, depending on the option selected in the **Progress Billing Basis** column on the **Revenue Budget** tab of the *Projects* form as follows:

- 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:

```
Pending Invoice Amount = Revised Budgeted Amount * ( Completed (%) / 100 ) -
Draft Invoice Amount - Actual Amount
```

```
Pending Invoice Quantity = Revised Budgeted Quantity * ( Completed (%) / 100 )
- Draft Invoice Quantity - 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.

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*.

Billing Projects: To Bill a Project with a Combined Rule

This activity will walk you through the process of billing a project by using a combined billing rule that depends on the progress stage being billed.

Story

Suppose that the Thai Food Restaurant customer has ordered a juicer from the SweetLife Fruits & Jams company, along with installation of the juicer and training of the company's employees on operating the juicer. The SweetLife project accountant has created a project to handle the tracking and billing of the juicer and the provided services. Both companies have agreed that the customer will be billed in two stages. At the end of the first stage, the customer will pay for 40 percent of the services, which have a fixed price, and for the juicer (which is installed during the first stage). At the end of the second stage (after the project is completed), the customer will pay for the remainder of the project.

Then suppose that on *1/30/2025*, the juicer has been delivered and installed. Acting as the project accountant, you need to update the progress of the project, process the issue of the juicer, and bill the customer for the first stage of 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 following features have been enabled:
  - *Project Accounting*, which provides support for the project accounting functionality
  - *Inventory and Order Management* feature, which provides the ability to maintain stock items and create and process sales orders and purchase orders
- On the *Customers* (AR303000) form, the *TOMYUM* customer has been defined.
- On the *Projects* (PM301000) form, the *TOMYUM2* project has been created for this customer, and two project tasks (*PHASE1* and *PHASE2*) have been added. 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 *Billing Rules* (PM207000) form, the *COMBINED* billing rule has been created; it has been assigned to both project tasks of the *TOMYUM2* project on the *Projects* form.

- On the *Warehouses* (IN204000) form, the *EQUIPHOUSE* warehouse has been created, and the *TOMYUM2* location has been created and associated with the *PHASE1* task of the *TOMYUM2* project.
- On the *Stock Items* (IN202500) form, the *JUICER15* stock item has been defined.

Process Overview

You will issue the stock item for the project on the *Issues* (IN302000) form to record the sale of a juicer. You will update the progress of the project on the *Projects* (PM301000) form and run the project billing. You will review the created pro forma invoice and release it on the *Pro Forma Invoices* (PM307000) form to create the corresponding accounts receivable invoice. On the *Invoices and Memos* (AR301000) form, you will review the prepared accounts receivable invoice, and release the invoice. Finally, you will review the project to make sure that the release of the AR invoice has caused the system to correctly update the actual amounts of the project.

System Preparation

To sign in to the system and prepare to perform the instructions of the activity, do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded; you should sign in 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 *1/30/2025*. 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: Issuing a Stock Item for the Project

To directly issue a stock item for the project (to record that the juicer that has been delivered to the customer) and capture the issued cost on the project, do the following:

1. On the *Issues* (IN302000) form, add a new record.
2. In the Summary area, type `A juicer for Thai Food Restaurant` in the **Description** box.
3. On the table toolbar of the **Details** tab, click **Add Row**, and specify the following settings in the row:
   - **Tran. Type**: *Issue*
   - **Inventory ID**: *JUICER15*
   - **Warehouse**: *EQUIPHOUSE* (inserted automatically)
   - **Location**: *TOMYUM2*
   - **Quantity**: `1`
   - **Unit Price**: `2,500`
   - **Reason Code**: *INISSUEPROJ*
   - **Inventory Source**: *Project Stock* (inserted automatically)
   - **Project**: *TOMYUM2* (inserted automatically)
   - **Project Task**: *PHASE1* (inserted automatically)
   - **Cost Code**: *00-000*

   In the footer of the table, the system shows that one juicer is available for issue for the selected project and warehouse location. **Unit Cost** in the line is $2,000. This is the cost at which the item will be issued from inventory.
4. Save the inventory issue, and release it.
5. On the *Projects* (PM301000) form, open the *TOMYUM2* project.
6. On the **Cost Budget** tab, make sure that the line with the *PHASE1* project task and the *JUICER15* inventory item was created based on the inventory issue you have released. The **Actual Quantity** is `1` because you

have issued one juicer from the project-specific location. The **Actual Amount** of the line is $2,000, which is the amount of the related project transaction (that is, the cost of the juicer).

7. On the table toolbar of the tab, click **View Transactions**. On the *Project Transaction Details* (PM401000) form, which opens, review the only row in the table. The **Amount** of the transaction is $2,000, the **Billable** check box is selected, and the **Billed** check box is cleared. This transaction will be billed by the time and material step of the billing rule assigned to the *PHASE1* project task.
8. Close the form to return to the *Projects* form.

Step 2: Billing the Project

To update the progress of project completion and bill the project, do the following:

1. While you are still viewing the *TOMYUM2* project on the *Projects* (PM301000) form, on the **Revenue Budget** tab, specify `40` as the **Completed (%)** of each revenue budget line. Notice that the system calculates the **Pending Invoice Amount** for each line ($112 for the *PHASE1* project task, and $160 for the *PHASE2* project task). This pending amount will be billed by the progress billing step of the billing rule assigned to the *PHASE1* and *PHASE2* project tasks.
2. Save your changes to the project, and on the form toolbar, click **Run Billing**. The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form. Review the invoice details and notice the following:
   - On the **Progress Billing** tab, the **Amount to Invoice** in each line is equal to the **Pending Invoice Amount** of the corresponding revenue budget line of the *TOMYUM2* project on the **Revenue Budget** tab of the *Projects* form.
   - On the **Time and Material** tab, the system has generated a line with the *JUICER15* item. The **Amount to Invoice** in the line is the price of the juicer ($2,500).
3. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release** to release the pro forma invoice. The system creates the accounts receivable invoice based on the pro forma invoice and assigns the *Closed* status to the pro forma invoice.
4. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that was created on the *Invoices and Memos* (AR301000) form. The AR invoice has three lines: two lines with the **Inventory ID** column empty that have been generated with the progress billing step of the billing rule (in the amounts of $112 and $160), and a line generated by the time and material step with the *JUICER15* item and the amount of $2,500.
5. On the form toolbar of the *Invoices and Memos* form, click **Remove Hold** to assign the invoice the *Balanced* status, and then click **Release** to release the accounts receivable invoice.
6. On the *Projects* form, open the *TOMYUM2* project, and on the **Balances** tab, review the amounts in the budget lines that have been updated as the result of the billing (see the following screenshot). **Actual Amount** for the *REVENUE* group is $2,772, which is the sum of the price of the juicer ($2,500) and 40 percent of the price of the services ($112 + $160); **Actual Amount** for the *MATERIAL* group is $2,000, which is the cost of the juicer.

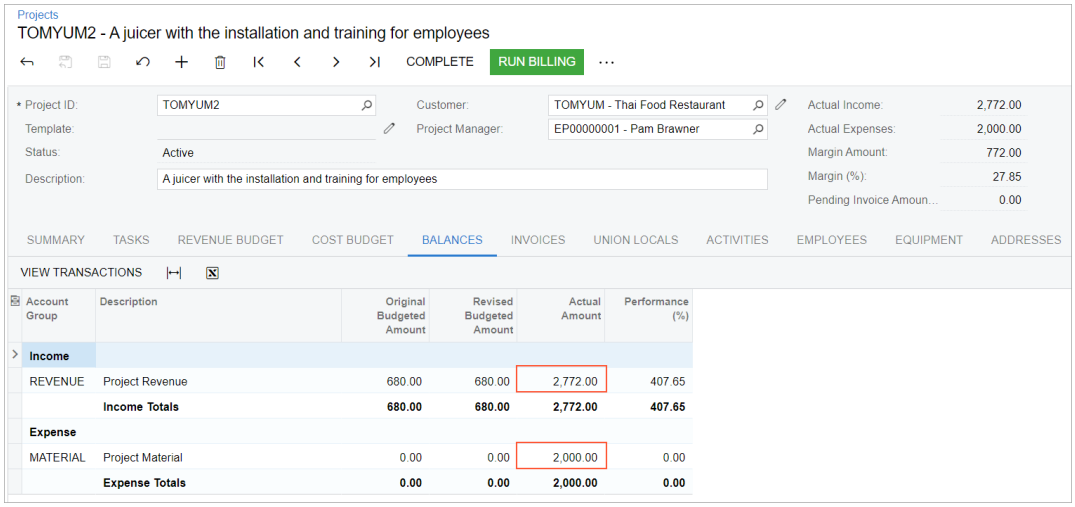


Figure: The project balances

You have finished billing the project with a combined billing rule.

Project Billing Preparation: Related Report and Inquiry Forms

This topic describes reports and forms you can review to gather information related to project billing. The topic also explains how you can print documents related to project billing.

Finding the Related Pro Forma Invoice

While you are working with a particular accounts receivable invoice on the *Invoices and Memos* (AR301000) form, you can review the pro forma invoice that was used for creating this accounts receivable invoice. To do this, you click **Pro Forma Invoice** on the More menu (under **Related Documents**) of the *Invoices and Memos* form.

Reviewing Unbilled Project Transactions

You can review the list of all the transactions that correspond to a project on the *Project Transaction Details* (PM401000) form. In the Selection area of this form, you select the project to review all its project transactions. The transactions for which the **Billed** check box is cleared have not been billed yet. You can narrow the range of listed transactions by specifying any of the following in the Selection area: project task, account group, and inventory item.

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.

Lesson 2: Using Prices and Rates in Billing

This lesson explains how you can configure a billing rule to be used for billing customers for different services provided for the project with different billing rates.

Billing Rates: General Information

You must establish an adequate pricing model in the project that you are managing to ensure that business outcomes are met, the project budget is used effectively, and project revenues and costs are properly balanced. In Acumatica ERP, you can implement virtually any pricing model by using billing rates for configuring complex billing rules.

Learning Objectives

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

- Create a rate table code and rate type
- Define a rate sequence
- Define a rate table with particular rates
- Use billing rates for billing projects with different billing rates

Applicable Scenarios

You configure and use billing rates if you need to perform project billing so that the system applies the appropriate rate based on the dates when the work has been performed, as well as any of the following factors:

- Particular projects and project tasks
- Specific account groups
- Certain inventory items
- Specific employees

Billing Rate Configuration

A billing rate is an exact value used for calculating the amount and quantity of the invoice lines that are created by the billing rule steps of the *Time and Material* type. The process of defining a billing rate includes the configuration of rate table codes, rate types, rate codes, and rate sequences.

A rate table is a set of billing rates that the system uses in the formulas of the billing rules during the billing of a project. A billing rate is defined for a particular date range; a rate table may include multiple rates with different effective dates. You can create a single rate table with multiple rate sequences and rate codes to be used for all projects, or define multiple rate tables to maintain different pricing models for the projects based on different factors. For example, you can create different rate tables and select the rate table to be used for the project depending on whether a customer of a project is a local one or international one.

In a rate table, for each rate type, you can define any number of rate sequences that include multiple factors that may affect the rates. These factors can include specific projects, project tasks, employees, account groups, and inventory items. You narrow the applicability of the rate based on the combination of factors you select. For example, you can configure a separate billing rate for particular tasks of specific projects if particular employees work on these project tasks.

Also, in each rate table, you can add rate codes, which represent an additional dimension in a rate table that you use to simplify the configuration of the rate table. By using multiple rate codes with one sequence, you can reduce the number of sequences that need to be configured for each pair of a rate table and a rate type. For example, instead of creating multiple sequences, each including the applicable rates for a particular employee, you can create only one rate sequence with the **Employee** check box selected on the *Rate Lookup Rules* (PM205000) form and create separate rate codes for each employee. As another example, suppose that you want to use different rates for three projects. Instead of creating multiple sequences with the **Project** check box selected in the table

on the *Rate Lookup Rules* form and specifying a rate for each sequence under one rate code, you can use only one sequence and three rate codes to define different rates for these three projects.

Workflow of Rate Table Configuration

You configure a rate table with rates by performing the following general steps:

1. You create a rate table code on the *Rate Table Codes* (PM204200) form.
2. You create a new rate type on the *Rate Types* (PM204100) form. Before creating the rate type, you need to plan how many and which rate types you will need in billing and allocation rules. (Typically, different rates are used for the billing of labor costs, revenues, and expenses.) When you configure billing or allocation rules, you will assign different rate types to different steps of these rules.
3. On the *Rate Lookup Rules* (PM205000) form, you create rate sequences for each combination of rate table code and rate type. Each sequence defines a group of options based on which the system will select the billing rate. You can select any combination of the *Project*, *Project task*, *Account group*, *Inventory item*, and *Employee* options. The sequence number specified in the **Sequence** column in the table defines the order in which the system will search for the rate in that row (starting from the sequence with the lowest number in the table).
4. On the *Rate Tables* (PM206000) form, for each combination of rate table code, rate type, and rate code, you select a rate sequence in the **Sequence** box. You select an existing rate code, or you create a new rate code by entering a new identifier in the **Rate Code** box.

   For the selected rate sequence, in the table on the **Rate** tab, you enter the exact values of billing rates with the date range during which the rates are effective. Also, on the tabs that appear for the types of factors that were defined in the rate sequence, you specify the specific factors that will define the applicability of the rates that you enter for the current rate sequence. These factors may include particular projects, project tasks, account groups, inventory items, and employees. Also, you specify the exact values of the billing rates with their date ranges in the **Rate** column on the **Rate** tab; the system will use these rates as the value of the *@Rate* parameter.
5. On the *Billing Rules* (PM207000) form, you create a billing rule and assign particular rate types to billing steps.

   In the billing rule steps, you use the *@Rate* parameter to refer to a particular billing rate in the billing rule formulas. In each billing rule step, you can specify this parameter as a multiplier, addend, or constant in the **Invoice Description Formula**, **Line Quantity Formula**, **Line Amount Formula**, and **Line Description Formula** boxes on the *Billing Rules* form.

   You can also assign rate types to allocation rules steps on the *Allocation Rules* (PM207500) form. Then you specify the *@Rate* parameter in the formulas of the allocation rule so that the system will use its value during transaction allocation. You can specify the parameter in the **Quantity Formula**, **Billable Qty. Formula**, **Amount Formula**, and **Description Formula** boxes on the *Allocation Rules* form.
6. On the *Projects* (PM301000) form, you assign a particular rate table to each of the project tasks of the project.

Billing Rates: To Bill a Project with Different Billing Rates

In this activity, you will bill a project with different billing rates to be used for the billing of different services provided in the project.

Story

Suppose that the Thai Food Restaurant customer has bought a juicer from the SweetLife Fruits & Jams company and ordered employee training from the company on how to use the juicer. SweetLife's project accountant, Pam Brawner, has created a project to account for the provided services. The training has taken place.

Acting as the project accountant, you need to bill the customer for the different services provided for the project with different billing rates.

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 the project accounting functionality.
- On the *Rate Tables* (PM206000) form, the *STANDARD* rate table, with rates for labor and materials, has been configured.
- On the *Billing Rules* (PM207000) form, the *TIMEMATERIAL* billing rule has been created. The billing rule includes the steps that have been configured for billing project transactions related to different account groups. (For an example of billing rule configuration, see *Billing Rates: To Create a Billing Rule with Rates*.)
- On the *Customers* (AR303000) form, the *TOMYUM* customer has been defined.
- On the *Non-Stock Items* (IN202000) form, the *INSTALL*, *JUICER15*, *SITEREVIEW* and *TRAINING* non-stock items have been created.
- On the *Projects* (PM301000) form, the *TOMYUM3* project for the *TOMYUM* customer has been created. On the **Tasks** tab of this form, the *PHASE1* and *PHASE2* project tasks has been configured and the *TIMEMATERIAL* billing rule and the *STANDARD* rate table are assigned to these project tasks. In the project, the **Create Pro Forma Invoice on Billing** check box is selected to indicate that when project billing is run, pro forma invoices are generated to be sent to the customer for acceptance before the accounts receivable invoices are prepared.
- On the *Project Transactions* (PM304000) form, the *PM00000002* project transaction related to the project has been created and released in preparation for billing.

Process Overview

You will bill the project on the *Projects* (PM301000) form and review the pro forma invoice amounts on the *Pro Forma Invoices* (PM307000) form.

Step 1: Billing the Project and Processing the Related Documents

To bill the project by using the time and material billing rule, do the following:

1. Open the *Project Transaction Details* (PM401000) form.
2. In the Selection area of the form, select *TOMYUM3* as the **Project**, and make sure that the other boxes are cleared. The table lists the related project transactions:
   - The line with the *INSTALL* item in the amount of $320
   - The line with the *JUICER15* item in the amount of $2000
   - The line with the *SITEREVIEW* item in the amount of $80
   - The line with the *TRAINING* item in the amount of $320

   Notice that in all lines, the **Billable** check box is selected and the **Billed** check box is cleared, indicating that the project is pending billing.

3. On the *Projects* (PM301000) form, open the *TOMYUM3* project. Notice that the **Actual Expenses** box in the Summary area shows $2,720 (which is the total of the processed project transactions), while **Actual Income** box contains *0* because the project has not been billed yet.
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. On the **Time and Material** tab of this form, review the four lines of the pro forma invoice (which have been created based on unbilled transactions).

   In each line, the system calculates **Billed Quantity** and **Billed Amount** by using the formula specified in the corresponding step of the billing rule. The following lines have been added to the pro forma invoice:

   - The *INSTALL* and *TRAINING* lines have been billed by the *20 – Labor from non-stock price* step, which has been configured for the *LABOR* account group; the billed amount for each line has been calculated based on the *@Rate* parameter defined in the *STANDARD* rate table for the *LABOR* rate type (which is 1.25). The calculated billing amount is $400 (320*1.25) for both lines.
   - The *JUICER15* line has been billed by the *10 – Material cost plus markup* step, which has been configured for the *MATERIAL* account group; the billed amount has been calculated based on the billable quantity (1) and the *@Price* parameter (which is the sales price of the *JUICER15* item, $2500). The calculated billing amount is $2500.
   - The *SITEREVIEW* line has been billed by the *30 – Re-invoice subcontractors* step, which has been configured for the *SUBCON* account group; the billed amount has been calculated by multiplying the transaction amount by the fixed coefficient (1.25). The calculated billing amount is $100 (1.25 * $80).

   The unit price in each pro forma invoice line is calculated as the billed amount divided by the billed quantity.
5. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release** to release the pro forma invoice. The system closes the pro forma invoice (which is now assigned the *Closed* status) and creates a corresponding accounts receivable invoice based on the pro forma invoice.
6. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that was created on the *Invoices and Memos* (AR301000) form.
7. On the form toolbar of the *Invoices and Memos* form, click **Remove Hold** to assign the invoice the *Balanced* status, and then click **Release** to release the accounts receivable invoice.

Step 2: 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 Summary area, select *TOMYUM3* 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 that have 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 billing now have the check box in the **Billed** column selected, indicating that these transactions have been billed.
2. On the *Projects* (PM301000) form, open the *TOMYUM3* project. Notice that in the Summary area, the **Actual Income** box now shows $3,400, which is the total amount of the invoice that you have processed. 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 (3,000 and 400).
3. On the **Balances** tab (see the following screenshot), review the project income and expenses aggregated by account groups.

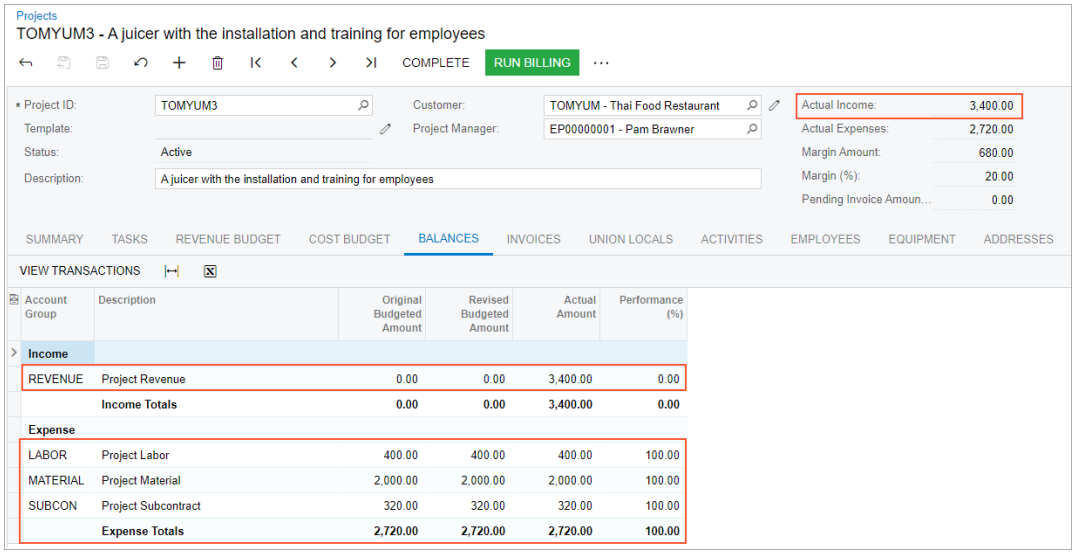


Figure: The project balances after project billing

You have billed the project based on the different billing rates specified for different types of expenses.

Lesson 3: Writing Off Amounts and Billing for Remainder

Acumatica ERP provides pro forma 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. Once all the necessary changes have been applied to the pro forma invoice, you release it and the system creates an accounts receivable invoice with all the information copied from the pro forma invoice. With this process, you minimize corrections that directly affect the accounts receivable subledger.

Time and Material Billing: Adjustments, Remainders, and Write-Offs

You may need to modify a pro forma invoice if you send this invoice to the customer for acceptance and if the customer requests some adjustments.

On the *Pro Forma Invoices* (PM307000) form, you can edit the lines of a pro forma invoice if it is assigned the *On Hold* status. If a pro forma invoice has the *Closed* status but you have not released the created accounts receivable document yet, you can delete the AR document to be able to edit the pro forma invoice.

> You can also rearrange the time and material lines of the pro forma invoice by dragging them to the appropriate positions.

Learning Objectives

In this lesson, you will learn how to:

- Add to the pro forma invoice an extra adjustment line that does not originate from project transactions
- Postpone the billing of a pro forma invoice line
- Write off a pro forma invoice line partially or fully

Applicable Scenarios

You modify a pro forma invoice if the customer has requested any adjustments. When you reach an agreement with the customer, you release the pro forma invoice to prepare the accounts receivable invoice.

Increasing the Billed Amounts

On the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form, you can increase the billed amounts by doing any of the following:

- Increasing the **Amount to Invoice** of the pro forma invoice line to bill the customer in a greater amount.
- Adding a new line to the pro forma invoice based on an unbilled transaction. To do this, you click **Upload Unbilled Transactions** on the table toolbar. In the **Upload Unbilled Transactions** dialog box, which opens, you select the lines with the project transactions that have not been billed yet, and click **Upload & Close**. The system creates new lines for these project transactions.
- Manually adding to a pro forma invoice an adjustment line that does not originate from the project transactions.

Postponing the Billed Amounts

To postpone the full amount of any pro forma invoice line, delete this line from the pro forma invoice on the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form. This line will appear in the next pro forma invoice prepared for the project.

To postpone a partial amount of the pro forma invoice line, decrease the **Amount to Invoice** and select *Hold Remainder* in the **Status** column. The unbilled remainder (that is, the difference between the original amount and the edited amount) will be postponed until the next billing for the project. For an unbilled remainder to be billed, the corresponding AR invoice that contains the line from which this remainder originates must be released.

You cannot postpone the partial amount of the pro forma invoice lines that have no link to a project transaction.

A pro forma invoice line with no link to a project transaction may be added manually by the user or generated by a billing rule that includes multiple time and material steps that have been configured for the same account group.

Writing Off the Billed Amounts

To write off the full amount of the pro forma invoice line, you select *Write Off* in the **Status** column for the line on the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form. This line will no longer appear in pro forma invoices prepared for the project.

To write off a partial amount of the pro forma invoice line, decrease the **Amount to Invoice** and select *Write Off Remainder* in the **Status** column. The unbilled remainder (that is, the difference between the original amount and edited amount) will be written off and will no longer appear in pro forma invoices prepared for the project.

You cannot fully or partially write off the amount of the pro forma invoice lines that have no link to a project transaction.

Decreasing the Billed Amounts

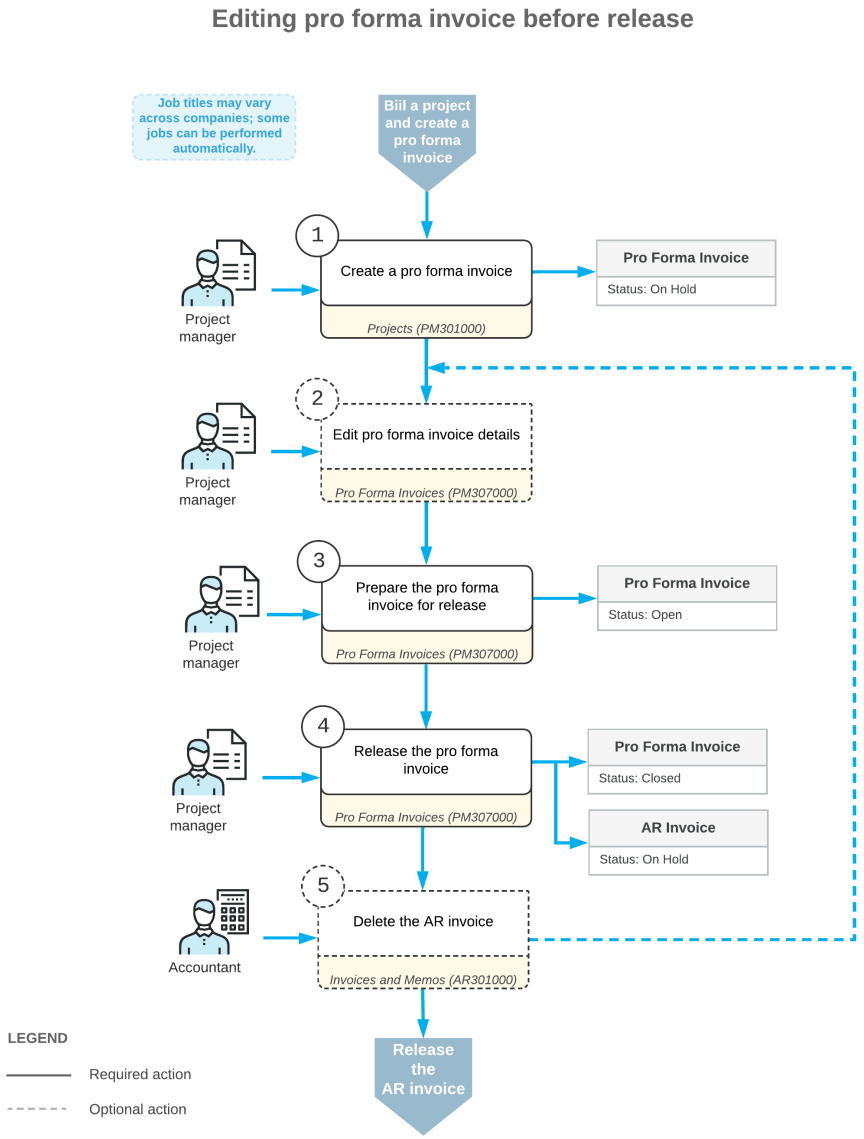
On the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form, you can click a pro forma invoice line and click **View Transaction Details** on the table toolbar. The system opens the **Transaction Details** dialog box, which shows the list of project transactions that correspond to this line. The **Billed Quantity** and **Billed Amount**

values for each project transaction in the list were calculated by using the formula of the billing rule. These values are totaled to populate the **Billed Quantity** and **Billed Amount** of the pro forma invoice line.

To reduce the billed quantity and amount of the pro forma invoice lines, you delete the particular transaction from the list. The deleted project transaction is unlinked from the pro forma invoice line and will appear in the next pro forma invoice prepared for the project.

Workflow of Changing Pro Forma Invoices

The following diagram illustrates the workflow of making changes to a pro forma invoice.



Time and Material Billing: To Postpone and Write Off Amounts

This activity will walk you through the process of postponing and writing off amounts in a pro forma invoice.

Story

Suppose that the Thai Food Restaurant customer has ordered a juicer, along with the services of installation and employee training on operating the juicer from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a project. The juicer has been delivered and installed, and a consultant has provided the training. The project accountant has billed the customer and sent the created pro forma invoice for approval.

SweetLife and the customer have agreed on the following adjustments to the pro forma invoice:

- The customer will pay $2,000 of the cost of the juicer with the first invoice (the accounts receivable invoice corresponding to this pro forma invoice) and the rest of the juicer's cost with the second invoice next month.
- The cost of the site review should be written off of the invoice, because the project manager agreed to provide the customer a free site review.
- A 50% discount will be applied to the cost of the training.
- The customer will pay $100 for an additional training session in Phase 1 of the project.

Acting as the project accountant, you will make the needed corrections to the pro forma invoice and bill the customer. You will then bill the customer for the second time with the amount postponed in the first 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 provide support for the project accounting functionality.
- On the *Projects* (PM301000) form, the *TOMYUM4* project has been created and the *PHASE1* and *PHASE2* project tasks have been created for the project.
- On the *Project Transactions* (PM304000) form, the *PM00000001* batch of project transactions related to the project has been created and released.
- On the *Pro Forma Invoices* (PM307000) form, the *000003* pro forma invoice has been created for the *TOMYUM4* project and saved with the *On Hold* status.
- On the *Stock Items* (IN202500) form, the *JUICER15* stock item has been created.
- On the *Non-Stock Items* (IN202000) form, the *SITEREVIEW*, *INSTALL*, and *TRAINING* non-stock items have been created.

Process Overview

In this activity, you will make corrections to the pro forma invoice and release the invoice on the *Pro Forma Invoices* (PM307000) form. On the *Invoices and Memos* (AR301000) form, you will review the accounts receivable invoice that was created based on the pro forma invoice; you will then release the accounts receivable invoice. You will then create one more pro forma invoice for the customer with the amount postponed in the first pro forma invoice.

Step 1: Adjusting the Pro Forma Invoice

To adjust the pro forma invoice according to the agreements that have been reached with the customer, do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM4* project.
2. On the **Invoices** tab, click the link in the **Pro Forma Reference Nbr.** column of the only row to open the pro forma invoice that you need to adjust.
3. On the **Time and Material** tab of the *Pro Forma Invoices* (PM307000) form, which opens, adjust the invoice lines as follows (see the adjustments in the screenshot below):

a. In the line with the *PHASE1* project task and the *JUICER15* inventory item, change **Amount to Invoice** to `2000`. When you enter an **Amount to Invoice** that is less than the **Billed Amount**, the system specifies *Hold Remainder* as the **Status** in this line; the difference between the **Billed Amount** and the **Amount to Invoice** will be billed later.

b. In the line with the *PHASE1* project task and the *SITEREVIEW* inventory item, select *Write Off* as the **Status** to write off the full amount of the line and exclude it from billing. The system specifies *0* in the **Amount to Invoice** column for this line.

c. In the line with the *PHASE2* project task and the *TRAINING* inventory item, do the following:

   a. Change **Amount to Invoice** to `200.00`.

   b. Select *Write Off Remainder* as the **Status** to write off the difference between the **Billed Amount** and the **Amount to Invoice** and exclude this difference from billing.

4. Add a new line with the following settings (also shown in the following screenshot):

   - **Project Task**: *PHASE1*
   - **Inventory ID**: *TRAINING*
   - **Cost Code**: `00-000`
   - **Description**: `An additional training session within phase 1`
   - **Amount to Invoice**: `100.00`

   After all the adjustments you have made, the invoice total in the Summary area should be $2,700.

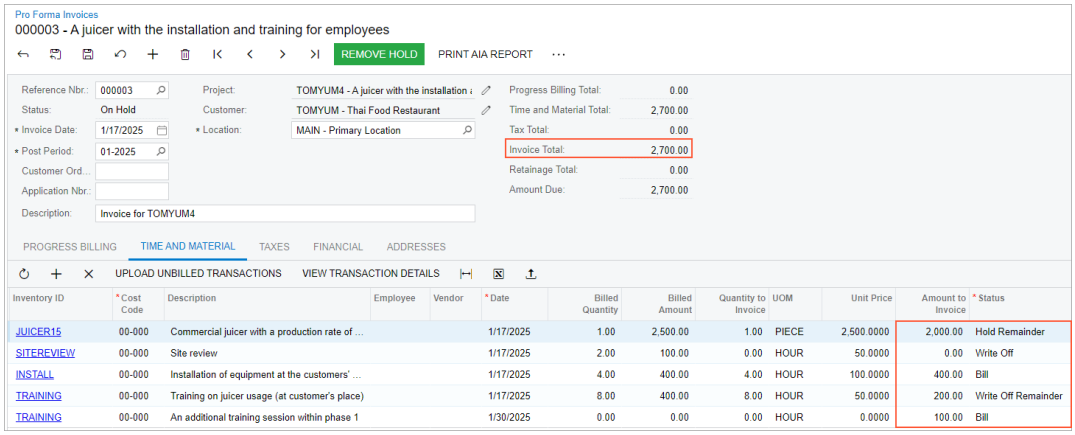


Figure: The adjustments to the pro forma invoice

5. Save your changes to the pro forma invoice.

6. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release** to release the pro forma invoice.

   The system creates the accounts receivable invoice based on the pro forma invoice and assigns the *Closed* status to the pro forma invoice.

7. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that has been created.

8. On the form toolbar of the *Invoices and Memos* (AR301000) form, which opens, click **Remove Hold** to assign the invoice the *Balanced* status, and then click **Release** to release the accounts receivable invoice.

Step 2: Billing the Project for the Remainder

To bill the customer the postponed amount (which is $500 of the juicer cost), do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM4* project, and on the **Cost Budget** tab, review the updated cost budget of the project. Click the cost budget line with the *PHASE1* project task and the *JUICER15* inventory item, and on the table toolbar, click **View Transactions**.
2. On the *Project Transaction Details* (PM401000) form, which opens, review the list of project transactions that correspond to the selected line.

   The transaction with an original document type of *Unbilled Remainder* has been created on release of the AR invoice that corresponds to the pro forma invoice from which the unbilled remainder originates. The identifier of the AR invoice is shown in the **Orig. Doc. Nbr.** column of the line. The transaction has the **Billable** check box selected and the **Billed** check box cleared, which means the transaction can be billed.
3. Close the form to return to the *Projects* form with the *TOMYUM4* project selected, and on the form toolbar, click **Run Billing** to bill the project for remainder.

   The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form.
4. On the **Time and Material** tab, review the pro forma invoice line that the system has created based on the unbilled remainder transaction. Only one line with the *PHASE1* project task and *JUICER15* inventory item has been added to the pro forma invoice. The amount of the line is $500.

   > The line with the *PHASE1* project task and the *SITEREVIEW* inventory item has not been added because you have written it off in the full amount. The line with the *PHASE2* project task and the *TRAINING* inventory item has been written off partially, and thus also has not been added to the pro forma invoice.

You have corrected the pro forma invoice and billed the project for the unbilled remainder.

Time and Material Billing: Generated Transactions

The following sections describe the transactions that are related to time and material billing.

Transactions Related to Time and Material Billing

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. For more information about these transactions, see *Pro Forma Invoices: Generated Transactions*.

Project Transactions Generated for an Unbilled Remainder

If an amount has been postponed in a pro forma invoice and the corresponding accounts receivable invoice (which contains the line from which this postponed amount originates) is released, the system generates the project transaction shown in the following table.

Billable	Billed	Amount	Orig. Doc. Type	Orig. Doc. Nbr.
Selected	Cleared	Postponed amount	*Unbilled Remainder*	The AR invoice in which the amount was postponed

The main attributes of the created transaction—such as the project, project task, and inventory item—are the same as those of the original project transaction from which this unbilled remainder originates. The date and

financial period of the unbilled remainder transaction is the date of the AR invoice on release of which this unbilled remainder transaction was created.

The system uses the following accounts as the debit and credit accounts in the project transaction it creates:

- If the project transaction to which the unbilled remainder relates was not posted to the general ledger, the system copies the debit and credit accounts (the specified accounts or empty values) of the corresponding project transaction from which the unbilled remainder originates.
- If the project transaction to which the unbilled remainder relates was posted to the general ledger, the system copies the accounts that are specified in the **GL Settings for Unbilled Remainders** section of the **General** tab of the *Projects Preferences* (PM101000) form. If no accounts are specified in the **GL Settings for Unbilled Remainders** section, the system copies the debit and credit accounts of the corresponding project transaction from which the unbilled remainder originates. In the line, the system also specifies the account group that is mapped to the debit account.

  On release of the project transaction generated for the unbilled remainder, the system also generates a batch of general ledger transactions. For details, see *Project Transactions: Generated Transactions*.

When the accounts receivable invoice that contains the unbilled remainder is released, the system generates the reversing project transaction for the unbilled remainder that is shown in the following table.

Billable	Amount	Orig. Doc. Type	Orig. Doc. Nbr.
Cleared	–(Postponed amount)	*Unbilled Remainder Reversal*	The AR invoice in which the postponed amount was billed

The main attributes of the created transaction—such as the project, project task, inventory item, account group, debit account, and credit account—are the same as those of the original project transaction of the unbilled remainder. The date and financial period are copied from the AR document that has caused the reversal of the unbilled remainder transaction (either credit memo that reverses the original AR invoice, or the AR invoice prepared for the unbilled remainder).

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 by the original document type in the **Orig. Doc. Type** column.

Time and Material Billing: Related Report and Inquiry Forms

This topic describes reports and forms you can review to gather information related to billing projects by progress. The topic also explains how you can print documents related to project billing.

Reviewing the Actual Amounts of the Project

You can review the list of project transactions corresponding to a project budget line with a nonzero **Actual Amount** on the **Revenue Budget** or **Cost Budget** tab of the *Projects* (PM301000) form. To review the corresponding project transactions of a line on either tab, you click the line; on the table toolbar, you click **View Transactions**, and the system opens the *Project Transaction Details* (PM401000) form with the project transactions displayed.

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 Unbilled Project Transactions

You can review the list of all the transactions that correspond to a project on the *Project Transaction Details* (PM401000) form. In the Selection area of this form, you select the project to review all its project transactions. The transactions for which the **Billed** check box is cleared have not been billed yet. You can narrow the range of listed transactions by specifying any of the following in the Selection area: project task, account group, and inventory item.

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.

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.

Lesson 4: Grouping Invoices

In this lesson, you will learn how you can configure project billing to create a single invoice for the project or to create multiple separate invoices. You will also 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.

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.

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.
9. 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:

1. On the *Billing Rules* (PM207000) form, open the *10 (Material cost plus markup)* step of the *TM* billing rule.
2. 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.
3. Save your changes to the billing rule.
4. Open the *20 (Material cost plus markup)* step of the *COMBINED* billing rule.
5. 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.
6. 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.
7. On the *Projects* (PM301000) form, open the *TOMYUM9* project.
8. 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.

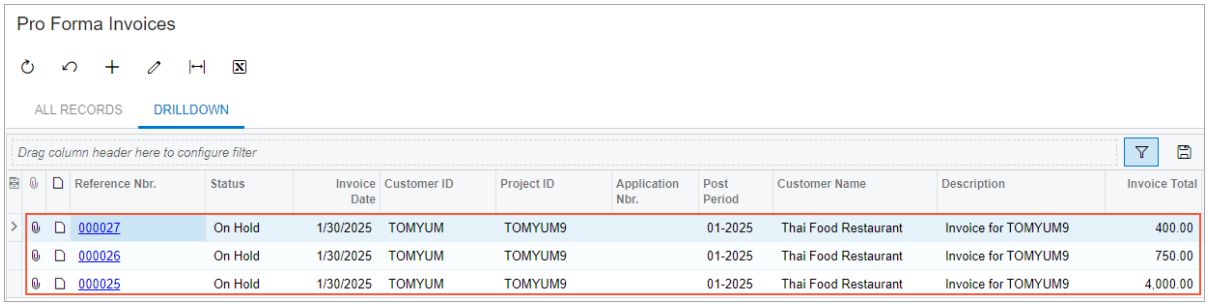


Figure: Pro forma invoices prepared during billing procedure

9. 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.
10. 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.
11. 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.

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.

Lesson 5: Modifying Billing Rules

This lesson describes how you can update the settings of an existing billing rule to ensure that the generated documents have the appropriate format.

Billing Rules: General Information

In Acumatica ERP, billing rules are used to automate the calculation of amounts being billed to customers for a particular project. You assign a particular billing rule to each project task, and the rule defines which transactions should be used for billing and which accounts should be used to record the transactions that are generated in the billing process.

Learning Objectives

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

- Configure billing rules for progress billing
- Configure billing rules for time and material billing
- Configure combined billing rules with multiple steps of different types
- Use billing rates and item prices in billing rules

Applicable Scenarios

You configure a billing rule to specify how the customers should be billed based on the project conditions:

- You configure a progress billing rule if you need to prepare an invoice for the customer that includes the services provided as a part of a fixed-price project.
- You configure a time and material billing rule if you need to prepare an invoice for the customer based on the project transactions that record the time and material spent on the project.
- You configure a combined billing rule that includes both progress billing and time and material billing steps if you need to calculate invoice amounts differently based on different project stages.

Configuration of Billing Rules

The billing process is defined by the billing rule of each project task. A billing rule is assigned to each project on the **Summary** tab (**Billing and Allocation Settings** section) of the *Projects* (PM301000) form. When a task is added to the project on the **Tasks** tab of this form, by default, it is assigned the billing rule of the corresponding project, but a different billing rule can be specified for the task.

You create billing rules on the *Billing Rules* (PM207000) form. In the **Billing Steps** table, you specify the sequence of steps for the selected billing rule. Then in the right pane, you define the calculation rules and invoice settings for each step. You can add either of the following to each billing rule:

- A single *Progress Billing* step to bill pending invoice amounts or quantities based on the progress of the performed work
- A single *Time and Material* step (or multiple steps of this type) to bill transactions by different account groups

A simple billing rule includes only one billing step. More complex billing rules consist of multiple steps with different conditions. Each step of a billing rule has a variety of settings, including the following, that depend on the step type:

- The account group that is used as a filter to select the transactions for billing if this is a *Time and Material* billing step.

  When the billing procedure is run, the system selects all the transactions that are due for billing. Normally, you use the same account group (or groups) for billing that you use for accumulating the unrecognized revenue. By running billing for these account groups, you recognize the revenue.

  > ⚠ 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.

- The formulas to define the description of the invoice and the description of each invoice line, to make the system compose each type of description dynamically during the billing process.
- The formulas to calculate the amount and the quantity of the invoice lines if this is a *Time and Material* billing step. In these formulas, you can use fields and attributes from such system 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 the rate tables can be configured on the *Rate Tables* (PM206000) form, and those from sales price lists, which are defined on the *Sales Prices* (AR202000) form.
- The sources of the sales account and the destination branch for each invoice line.

  The billing process uses the originating branch from the project settings on the *Projects* 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, if you want 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 for informational purposes if this is a *Time and Material* billing step; the respective invoice lines will have a billed quantity and billed amount of 0.
- Grouping criteria by date, employee, vendor, and inventory item for the invoice lines if this is a *Time and Material* billing step.

Formulas and Parameters in Billing Rules and Allocation Rules

> ⓘ The parameters and objects listed in this section could be specified in allocation rules as well.

In formulas that are used in the settings of billing rules, you can use the *@Rate* parameter to refer to billing rates defined in the rate tables on the *Rate Tables* (PM206000) form. For more information, see *Billing Rates: General Information*.

For project transactions with associated stock or non-stock items, you can retrieve the effective sales price of an inventory item by using the *@Price* parameter. For instance, to implement a price model that estimates the project billable amount as the billable quantity of the provided services multiplied by the price, you can use the following formula: =[PMTran.BillableQty]*@Price. For more information about using billing rates, see *Billing Rates: General Information*.

Also, in formulas that are used in the settings of a billing rule, you can use the following data access classes to retrieve the data:

- `PMAccountGroup`

- `PMBudget`

  When you bill a project using a billing rule with a formula that uses the `PMBudget` data access class, for each budget line of the project, the system retrieves the `PMBudget` records that are associated with the same project budget key. The project budget key includes the project, project task, account group, and inventory item, as well as the cost code if the *Cost Codes* feature is enabled on the *Enable/Disable Features* (CS100000) form.
- `PMProject`
- `PMTask`
- `PMTran`
- `Customer` (the customer of the project transaction that is being billed)
- `EPEmployee` (the employee of the project transaction that is being billed)
- `InventoryItem` (the inventory item of the project transaction that is being billed)
- `Vendor` (the vendor of the project transaction that is being billed)

Billing Rules: To Modify a Billing Rule

In this activity, you will learn how to update the settings of an existing billing rule, and review how this affects the documents generated by the project billing process.

Story

Suppose that as part of a contract to provide juicers to multiple restaurants, the Thai Food Restaurant customer has ordered a juicer from the SweetLife Fruits & Jams company, along with the following services: site review, installation, and training of employees on operating the juicer. The SweetLife project accountant has created a project to account for the provided work and has generated a pro forma invoice for the project. Then suppose that the project accountant has reviewed the prepared pro forma invoice, and has decided that the following changes should be made:

- The invoice's description should be corrected to be more clear. The updated description will say *Invoice for* followed by the identifier of the project.
- The processing of the travel expenses related to the project needs to be added to the billing rule. Per the agreement with the customer, these will be billed with a fixed margin coefficient of 1.4.
- The invoice lines should be grouped by inventory item.

Acting as the project accountant, you need to update the billing rule and verify that invoices are generated in the appropriate format.

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 *Account Groups* (PM201000) form, the *MATERIAL*, *LABOR*, and *SUBCON* expense account groups have been defined.
- On the *Billing Rules* (PM207000) form, the *TIMEMATERIAL* billing rule has been configured. The billing rule includes a step for each of the configured expense account groups.
- On the *Projects* (PM301000) form, the *TOMYUM10* project has been created. On the **Tasks** tab, the *TIMEMATERIAL* billing rule is specified for each project task. Also, the **Create Pro Forma Invoice on Billing** check box is selected on the **Summary** tab, indicating that a pro forma invoice is created when the project is billed.

- On the *Project Transactions* (PM304000) form, the *PM00000006* batch of project transactions related to the project has been created and released.

Process Overview

You will bill the project on the *Projects* (PM301000) form; you will also review how the current billing rules work, and how the prepared pro forma invoice looks on the *Pro Forma Invoices* (PM307000) form. Then you will delete the pro forma invoice, to cancel billing, and modify the billing rule on the *Billing Rules* (PM207000) form. You will change the description of the invoices to be created, add a new step to a billing rule for processing the travel expenses, and configure the grouping of project transactions for employee labor to a single line.

After you make these changes to the billing rule, you will bill the project again on the *Projects* form. Finally, you will review the pro forma invoice created with the modified billing rule on the *Pro Forma Invoices* form.

Step 1: Billing the Project

To bill the project for the Thai Food Restaurant customer, do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM10* project, and on the **Cost Budget** tab, review the cost budget of the project. In the lines with the *PHASE3* task, notice that travel expenses are associated with the *TRAVEL* account group, while the employee's labor on conducting training is associated with the *LABOR* account group.
2. On the form toolbar, click **Run Billing** to review the pro forma invoice the system creates for this project with the existing *TIMEMATERIAL* billing rule.

   The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form. Review the details of the pro forma invoice, which should be improved as follows:

   - The pro forma invoice description is *Invoice for TOMYUM10*. While the description is correctly noting the project identifier in the system, you would like the invoice description to also include the description of the project.
   - On the **Time and Material** tab, there is no line with the *TRAVEL* inventory item because the billing rule does not include a step configured for the billing of the expenses related to the *TRAVEL* account group.
   - On the **Time and Material** tab, there are three lines with the *PHASE3* task and the *TRAINING* inventory item. For a more typical and easier-to-grasp way of presenting invoice lines, multiple lines with the same inventory item should be grouped into one line.
3. On the form toolbar, click **Delete** to delete the pro forma invoice.

Now you need to modify the billing rule, and perform the billing process for the project again.

Step 2: Modifying the Billing Rule

To change the *TIMEMATERIAL* billing rule, do the following:

1. On the *Billing Rules* (PM207000) form, open the *TIMEMATERIAL* billing rule.
2. To modify the description of invoices created with the billing rule, do the following:
   a. In the **Billing Steps** table, click the *10 - Material cost plus markup* step so that you can modify the settings of this step.
   b. In the right pane, enter the following formula in the **Invoice Description Formula** box:

      ```
      ='Invoice for '+[PMProject.ContractCD]+'('+[PMProject.Description]+')'
      ```

   c. Save your changes.
   d. In the **Billing Steps** table, click the *20 - Labor from non-stock price* step and in the right pane, enter the following formula in the **Invoice Description Formula** box:

      ```
      ='Invoice for '+[PMProject.ContractCD]+'('+[PMProject.Description]+')'
      ```

e. Save your changes.

f. In the **Billing Steps** table, click the *30 - Re-invoice subcontractors* step and in the right pane, enter the following formula in the **Invoice Description Formula** box:

```
='Invoice for '+[PMProject.ContractCD]+'('+[PMProject.Description]+')'
```

g. Save your changes.

3. To add a billing step to bill travel expenses with a fixed margin coefficient of 1.4, do the following:

a. In the **Billing Steps** table, add a new row, and specify the following settings in the row:

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

b. In the right pane, specify the following settings for the step selected in the left pane (see the screenshot below):

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

  With this step of the billing rule, the system processes the project transaction that debits accounts mapped to the *TRAVEL* account group.
- **If @Rate Is Not Defined**: *Set @Rate to 0*
- **Invoice Description Formula**: `='Invoice for '+[PMProject.ContractCD]+'('+[PMProject.Description]+')'`
- **Line Quantity Formula**: `=[PMTran.BillableQty]`

  The system uses the quantity of the project transaction as the quantity of an invoice line.
- **Line Amount Formula**: `=[PMTran.Amount]*1.4`

  The system uses the amount of the project transaction multiplied by 1.4 as the amount of the invoice line.
- **Line Description Formula**: `=[PMTran.Description]`

  The system uses the description of the project transaction as the description of the invoice line.
- **Use Sales Account From**: *Inventory Item*

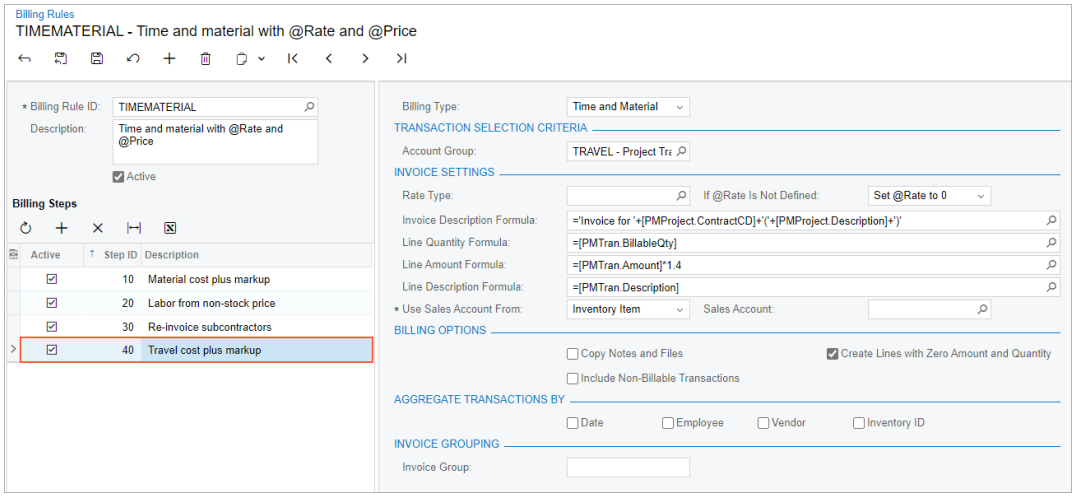


Figure: The new step of the billing rule

4. To group project transactions with the *LABOR* account group into a single invoice line if they also have the same inventory item, do the following:

a. In the left pane, click the *20 - Labor from non-stock price* step.

b. In the right pane, in the **Aggregate Transactions By** section, select the **Inventory ID** check box.

5. Save your changes to the billing rule.

Step 3: Billing a Project With the Updated Billing Rule

To bill the project with the billing rule that you have modified and review how the changes to the billing rule affect the prepared pro forma invoice, do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM10* project.
2. On the form toolbar, click **Run Billing**.

   The system creates a pro forma invoice and opens it on the *Pro Forma Invoices* (PM307000) form. Notice the following changes to the pro forma invoice, which are shown in the screenshot below:

   - The description of the pro forma invoice is now *Invoice for TOMYUM10 (A juicer with the installation and training for employees)*.
   - On the **Time and Material** tab, a line with the *TRAVEL* inventory item has appeared.
   - On the **Time and Material** tab, there is only one line with the *PHASE3* task and *TRAINING* inventory item.

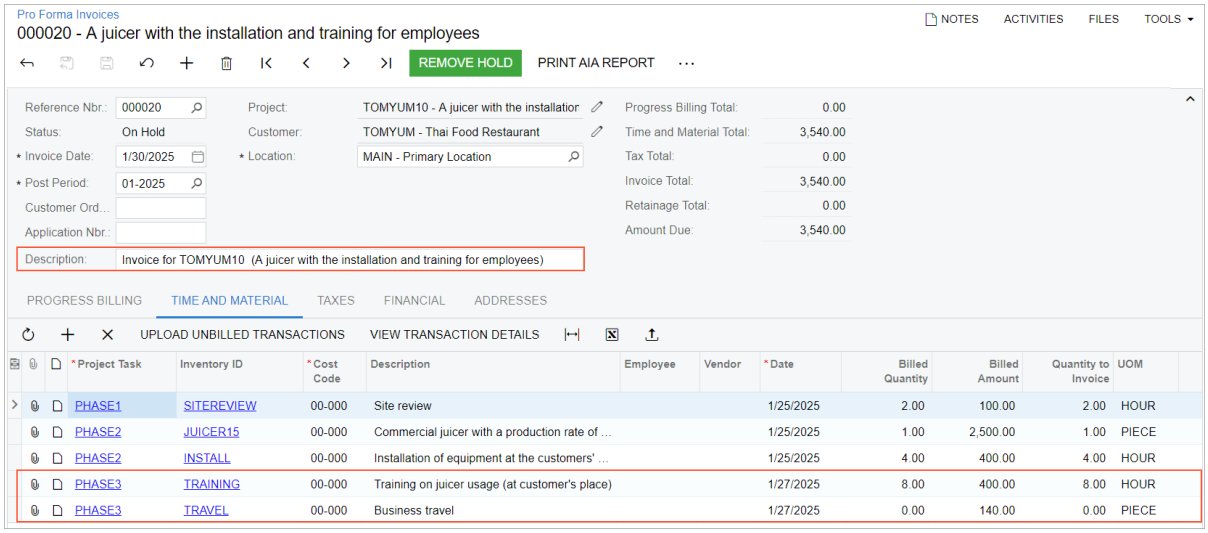


Figure: The pro forma invoice generated by the updated billing rule

3. Click the line with the *PHASE3* task and *TRAINING* inventory item, and on the table toolbar, click **View Transaction Details** to review the list of project transactions corresponding to the invoice line. In the **Transaction Details** dialog box, which opens, make sure that three transactions were grouped into one line during the billing, based on the aggregation setting of the billing rule you have modified.

You have modified the billing rule and prepared pro forma invoice for the project based on this updated rule.

Lesson 6: Correcting Actual Income of Projects

In Acumatica ERP, you can create a credit memo for a project during the project billing.

Project Invoice Correction: Credit Memos for Projects

To correct the actual amounts of a project that has been overcharged during the previous billing, you can create a credit memo for a project, either manually or during the project billing procedure.

Learning Objectives

In this lesson, you will learn how to create a credit memo for a project.

Applicable Scenarios

You create a credit memo for a project if you need to correct the actual amounts of the revenue budget that have been exceeded.

Project Billing with Credit Memo

If on the **Summary** tab of the *Projects* (PM301000) form, the **Create Pro Forma Invoice on Billing** check box is selected for the project, the system creates a credit memo on release of the pro forma invoice if the total amount of the pro forma invoice is negative.

During the billing of each processed project, the system creates a credit memo on the *Invoices and Memos* (AR301000) form if both of the following conditions are met for the project on the *Projects* form:

- On the **Summary** tab, the **Create Pro Forma Invoice on Billing** check box is cleared.
- The project has a negative **Pending Invoice Amount Total** on the **Revenue Budget** tab.

Credit Terms in Credit Memos

The system fills in the credit terms for the credit memo as follows:

- If the project has credit terms specified in the **Terms** box on the **Summary** tab of the *Projects* (PM301000) form and the **Use Credit Terms in Credit Memos** check box is selected on the *Accounts Receivable Preferences* (AR101000) form, the terms are copied from the project to the credit memo.
- If the **Terms** box is empty for the project and the **Use Credit Terms in Credit Memos** check box is selected on the *Accounts Receivable Preferences* form, the terms are copied from the customer's settings to the credit memo.
- If the **Use Credit Terms in Credit Memos** check box is cleared on the *Accounts Receivable Preferences* form, the **Terms** box of the *Invoices and Memos* (AR301000) form is empty for the credit memo.

For details on the calculation of cash discounts in the generated documents, see *Setup and Calculation of Cash Discounts*.

Project Invoice Correction: To Prepare a Credit Memo for a Project

In this activity, you will correct the actual amounts of a project that has been overcharged during the billing. To do this, you will create a credit memo for the project.

Story

Suppose that the Thai Food Restaurant customer recently ordered eight hours of training on how to use a juicer it had previously bought from the SweetLife Fruits & Jams company. SweetLife's project accountant created a project for this training, a consultant of SweetLife provided the training, and the project accountant billed the customer.

Further suppose that the project accountant has realized that the consultant provided six hours of training instead of eight, so the company overcharged the customer by $100. Acting as the project accountant, you need to correct the actual amount of the project and create a credit memo 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 provide support for the project accounting functionality.
- On the *Projects* (PM301000) form, the *TOMYUM11* project has been created and the *TRAINING* project task has been created for the project. On the **Summary** tab (**Billing and Allocation Settings** section), the **Create Pro Forma Invoice on Billing** check box has been selected for the project.
- For the project, the *000004* pro forma invoice and the corresponding *000075* accounts receivable invoice have been created and released on the *Pro Forma Invoices* (PM307000) and *Invoices and Memos* (AR301000) forms, respectively.

Process Overview

In this activity, on the *Projects* (PM301000) form, you will update the pending invoice amount of the project with a negative amount and run project billing to prepare a pro forma invoice. On the *Pro Forma Invoices* (PM307000) form, you will review the pro forma invoice and release it. You will then review the credit memo that was created based on the pro forma invoice and release the credit memo on the *Invoices and Memos* (AR301000) form.

Step: Creating a Credit Memo for the Project

To create a credit memo for the extra $100 that was billed for the project, do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM11* project. In the Summary area, notice that the actual income of the project is $400.
2. On the **Revenue Budget** tab, enter `-100` as the **Pending Invoice Amount** of the only revenue budget line that you are going to correct.
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. In the Summary area, notice that the **Invoice Total** is negative and equals the amount you have specified for the revenue budget line of the project (*–100.00*).
5. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release**. The system assigns the *Closed* status to the pro forma invoice.

   The **Invoice Total** of a pro forma invoice on the *Pro Forma Invoices* form was negative, so the system creates an accounts receivable credit memo when the pro forma invoice was released.
6. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the credit memo that has been created for the pro forma invoice.
7. On the form toolbar of the *Invoices and Memos* (AR301000) form, which opens, click **Remove Hold** to assign the credit memo the *Balanced* status, and then click **Release**.

8. On the *Projects* form, open the *TOMYUM11* project and press Esc to refresh the form. In the Summary area, notice that the actual income of the project, which has been updated as a result of the billing, is $300.

   On the **Invoices** tab, notice that the credit memo with the corresponding pro forma invoice has appeared in the table, as shown in the following screenshot.

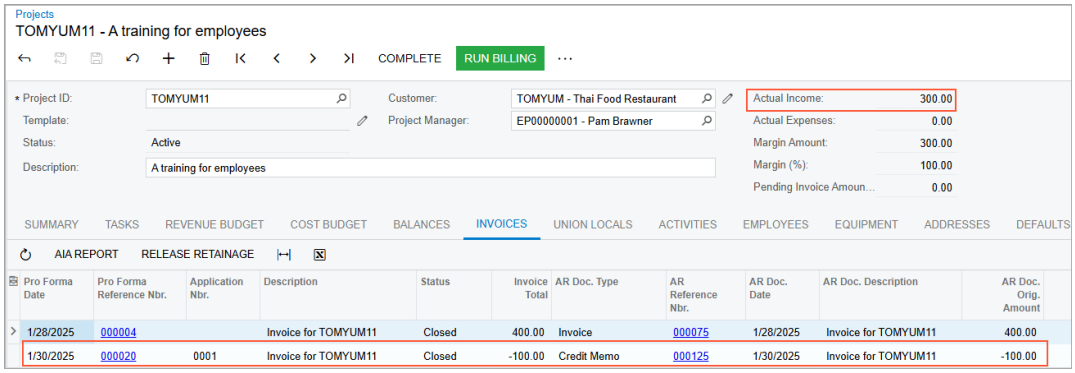


Figure: The credit memo created for the project

You have adjusted the overcharged actual income in the project.

Part 2: Transactions and Time Tracking

This part describes how to capture costs using project transactions and how to track the time that employees have spent for projects.

Lesson 7: Processing Project Transactions

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: 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.

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:

1. On the *Project Transactions* (PM304000) form, create a new record.
2. In the Summary area, make sure *PM* is selected as the **Module**.
3. Enter `A 4-hour training session` as the **Description**.
4. 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.
5. 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.

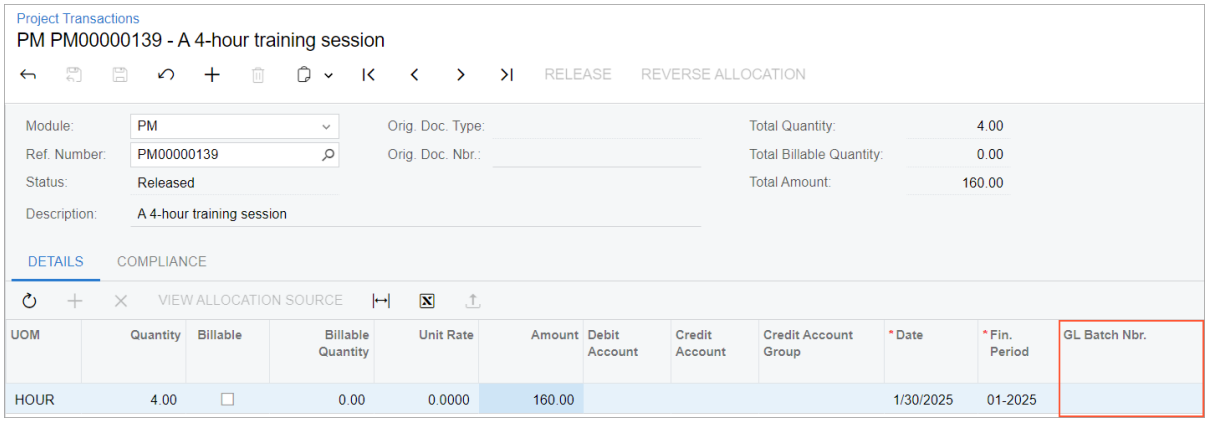


Figure: The project transaction that produces no GL transaction

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.

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.

Lesson 8: Tracking Employee Work in Projects

This lesson describes how to track billable hours and employees' work time on projects, and how to bill projects based on this time.

Employee Time Billing: General Information

In Acumatica ERP, you can use the time reporting functionality to give employees the ability to report the time that they spend for the project. During project billing, you can bill customers for this time.

Learning Objectives

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

- Enter a billable time activity related to a project, and log the time spent for the project
- Enter a billable time card related to a project, and log the time spent for the project
- Bill a project for employees' time spent working on it

Applicable Scenarios

You may want to learn more about employee time billing if you are an employee who needs to log work time spent on particular project.

This information is also useful if you are a project accountant, and you need to bill the customer for employee time that was spent for a particular project and logged by using time cards.

Entry of Time Tracking Documents

In Acumatica ERP, employees can report their work time by creating time cards that include separate detail records associated with different projects or project tasks.

A time card, which an employee enters on the *Employee Time Cards* (EP305000) form, is a weekly report on the time an employee has spent on each activity. In each line of a time card, the following information is specified:

- The earning type, which defines whether the reported work should be billed
- The project and project task related to the reported hours
- The labor item assigned to the employee who performed the work
- The time spent on each day of the week for which the time card is prepared

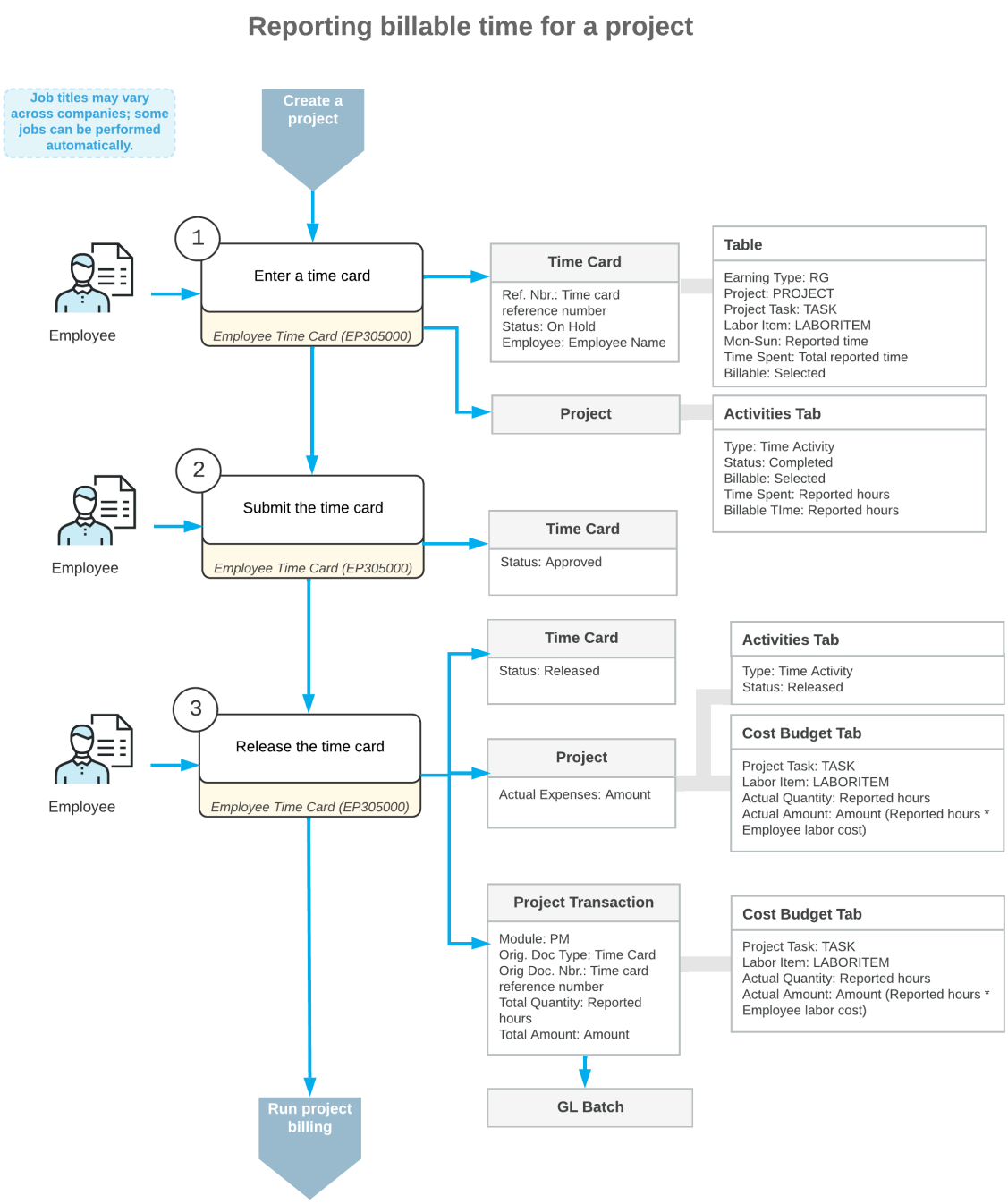
For each time duration reported in the time card, the system creates a time activity linked to the project; the activity is assigned the *Completed* status. You can review the list of time activities related to a project on the **Activities** tab of the *Projects* (PM301000) form.

If time tracking with time activities is configured, on the **Activities** tab, you can add an individual project-related activity to the selected project by clicking **Create Activity** on the table toolbar and selecting the type of activity to be created. Then you enter the details of the time activity on the *Activity* (CR306010) form, which opens. To indicate that the time activity is related to a project, you select the **Track Time and Costs** check box and specify the project-related information in the Summary area of the form. Finally, you complete the activity to submit it. The reported data from the time activity becomes available in the employee time card; the time activity can be released within this time card or individually.

When the time card is released, the related project transaction is created and released, so that the logged employee time is tracked in the related project and can then be billed. Also, on release of the time card, for each day of the week with reported time, a separate time activity is released.

Workflow of the Submission of a Time Card

For a project-related time card, the processing involves the actions and generated documents shown in the following diagram.



Billing Employee Time in Projects

Once time tracking is configured for projects and the system is configured to generate transactions from time activities, the working time reported by employees is tracked in the related projects and can be billed automatically during the project billing procedure.

Each line of a time card is a time activity. On release of a time card with project-related lines, the system processes these lines as follows:

- Generates project transactions for each time activity within a time card that is associated with a project.

This extra step between the release of the time-tracking document and the updating of balances of general ledger accounts makes it possible to define labor costs and bill customers based on these costs and the quantity of working hours reported by employees for the project. The system further processes the project transactions originating from a time card based on the allocation or billing rules assigned to the project tasks of the project to which this transactions relates.

- Generates general ledger transactions (and does not generate project transactions) for each time activity within a time card that is associated with a non-project code.

Labor Items: Labor Cost Rates

In Acumatica ERP, you can define labor rates, which are used to determine the cost of employee time spent on a particular project, and bill the customers based on this cost. The following sections explain how the labor cost rates are specified and retrieved in projects.

Creation of Labor Cost Rates

On the *Labor Rates* (PM209900) form, you can define labor cost rates that are specific to particular entities, such as the employee, project, project task, labor item, date, union local, certified job, and workers' compensation code.

When you define a labor cost rate, you specify its type, the rate, and an optional description and external reference number of the rate. Based on the type you select, particular columns become available so you can specify the particular entity the rate applies to and other relevant details. In the **Type** column of the *Labor Rates* form, you select one of the following options:

- *Labor Item*: If you select this type, in the row, you must also select the labor item and the rate.
- *Employee*: If you select this type, in the row, you must select the employee and the rate; optionally, you can also select a particular labor item to which the rate applies.
- *Project*: If you select this type, in the row, you must select the project and the rate. Optionally, you can select any of the following to which the rate applies: the project task, the employee, and the labor item.
- *Union Wage*: If you select this type, in the row, you must select the applicable union local and labor item.

  You might define a rate of this type if an employee is a member of a local branch of a union; in this case, the union requires the company to pay the dictated union rate, which is usually higher than the prevailing wage rate.
- *Prevailing Wage*: If you select this type, in the row, you must select the project and labor item.

  You might define a rate of this type if a government entity requires the construction companies to pay a non-union employee no less than the dictated prevailing wage rate. The prevailing wage is a government mechanism to equalize the wage rates that are paid by a construction company to non-union workers compared to labor union workers for the same type of work performed for a certified job. (A certified job is a job performed for government, such as a construction project of a municipal building.)

For each labor cost rate, regardless of its type, you specify the effective date. If there are multiple labor cost rates with the same settings, the system uses the rate with the most recent effective date that precedes the current date. You can also create a labor cost rate with the same settings as an existing labor cost rate but with an effective date that is later than the latest effective date of the existing labor cost rate.

Units of Measure in Labor Cost Rates

When you specify the rate for a row with a labor item selected on the *Labor Rates* (PM209900) form, you specify the rate for the base unit of measure (UOM) of the labor item. The base UOM of the labor item should be convertible into minutes so that the system can convert the base UOM to a minute. That is, there should be conversion rules from a minute to the base UOM and from the base UOM to a minute on the *Units of Measure* (CS203500) form.

When you create a labor cost rate for a labor item with a base UOM that is not an hour, make sure that you enter the rate for the base UOM of the labor item on the *Labor Rates* form so that the system calculates the correct amount when a time activity with this labor item is released.

For example, suppose that you have the *TRAINING* labor item, whose base UOM is *UNIT*. According to the conversion rules specified on the *Units of Measure* (CS203500) form, one unit equals four hours. On the *Labor Rates* form, when you add a labor cost rate with an employee and the *TRAINING* labor item, you should specify the rate in the base UOM, which is *UNIT*. When the employee enters a time card on the *Employee Time Cards* (EP305000) form and selects the *TRAINING* labor item in a time activity on the *Activity* (CR306010) form, the time is reported in hours even though the base UOM of the selected item is not an hour. When the time card with the corresponding time activities is released, the system generates a project transaction with the *TRAINING* labor item in the base UOM of the item. If the employee has reported eight hours, the project transaction will contain two *TRAINING* units.

Time Card Population

When you create a time card on the *Employee Time Cards* (EP305000) form, for each line, you select the employee, project, project task, labor item, date, union local, certified job, and worker compensation code.

In a time card, the system automatically populates the **Union Local** column with the union local copied from the settings of the employee specified on the **General Info** tab of the *Employees* (EP203000) form if the employee's union local specified is one of the union locals of the project specified on the **Union Locals** tab of the *Projects* (PM301000) form, or if the project has no union local. Otherwise, the system leaves the column blank.

The system automatically selects the **Certified Job** check box in the time card line if for the corresponding project, the **Certified Job** check box is selected in the **Project Properties** section on the **Summary** tab of the *Projects* form. In a time card, you can override the automatically selected **Certified Job** and **Union Local** settings, if needed.

Retrieval of Labor Cost Rates

For each time card line on the *Employee Time Cards* (EP305000) form, the system retrieves the cost rate from the labor cost rate table on the *Labor Rates* (PM209900) form as follows:

1. Among labor cost rates of the *Project*, *Employee*, and *Labor Item* rate types, the system selects the most specific existing labor cost rate among the defined labor cost rates that matches all the settings specified in the time card line and is effective on the date of the document. The system looks for the following sets of settings that match the time card settings and uses the first set it finds:
   - The *Project* rate type, project, project task, employee, and labor item
   - The *Project* rate type, project, project task, and employee
   - The *Project* rate type, project, project task, and labor item
   - The *Project* rate type, project, and project task
   - The *Project* rate type, project, employee, and labor item
   - The *Project* rate type, project, and employee
   - The *Project* rate type, project, and labor item
   - The *Project* rate type, and project
   - The *Employee* rate type, employee, and labor item
   - The *Employee* rate type, and employee
   - The *Labor Item* rate type, and labor item
2. For the time card line, if the **Certified Job** check box is selected and a **Union Local** is specified, the system selects the *Union Wage* and *Prevailing Wage* rate types that match the settings specified in the time card line. Then the system compares the most specific labor cost rate that has been found in the previous step with the selected labor cost rates of the *Union Wage* and *Prevailing Wage* rate types. Based on the comparison, the system selects the higher labor cost rate.

3. If there are multiple labor cost rates with the same settings, the system uses the rate with the actual effective date corresponding to the date of the time card line in the time zone in which the time card line was reported.

Labor Items: To Define Labor Cost Rates

In the following implementation activity, you will learn how to define labor cost rates.

Story

Suppose that in the SweetLife Fruits & Jams company, the price of the consulting services depends on the qualifications of the consultant who provides the service. Acting as SweetLife's project manager, you need to define the labor cost rates that will become effective on January 1, *2025*, for three of your company's consultants:

- Pam Brawner, a project manager, whose work rate is $48 per hour
- Jon Waite, a senior consultant, whose work rate is $44 per hour
- Alberto Jimenez, a junior consultant, whose work rate is $40 per hour

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.
- On the *Non-Stock Items* (IN202000) form, the *CONSULTJR*, *CONSULTSR*, and *CONSULTPM* labor items have been created; on the *Employees* (EP203000) form, these items have been assigned to the *EP00000004 (Alberto Jimenez)*, *EP00000003 (Jon Waite)*, and *EP00000001 (Pam Brawner)* employees, respectively. The base unit of all items is *HOUR*.

Process Overview

You will define labor cost rates that are based on the employee who performed the work on the *Labor Rates* (PM209900) 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 *1/1/2025*. If a different date is displayed, click the Business Date menu button, and select *1/1/2025* on the calendar.

Step: Defining Labor Cost Rates

To define the needed labor cost rates, do the following:

1. On the *Labor Rates* (PM209900) form, to add a new labor cost rate for Alberto Jimenez, click **Add Row** on the table toolbar, and specify the following settings in the row:
   - **Labor Rate Type**: *Employee*
   - **Employee**: *EP00000004 (Alberto Jimenez)*
   - **Labor Item**: *CONSULTJR* (inserted automatically as the labor item associated with the employee)
   - **Rate**: `40`
   - **Effective Date**: *1/1/2025* (inserted automatically)

2. To add a labor cost rate for Jon Waite, click **Add Row** on the table toolbar, and specify the following settings in the row:
   - **Labor Rate Type**: *Employee*
   - **Employee**: *EP00000003 (Jon Waite)*
   - **Labor Item**: *CONSULTSR* (inserted automatically as the labor item associated with the employee)
   - **Rate**: `44`
   - **Effective Date**: *1/1/2025* (inserted automatically)
3. To add a labor cost rate for Pam Brawner, again click **Add Row** on the table toolbar, and specify the following settings in the row:
   - **Labor Rate Type**: *Employee*
   - **Employee**: *EP00000001 (Pam Brawner)*
   - **Labor Item**: *CONSULTPM* (inserted automatically as the labor item associated with the employee)
   - **Rate**: `48`
   - **Effective Date**: *1/1/2025* (inserted automatically)
4. Save your changes to the labor cost rates. The labor cost rates you have defined should look like those shown in the following screenshot.

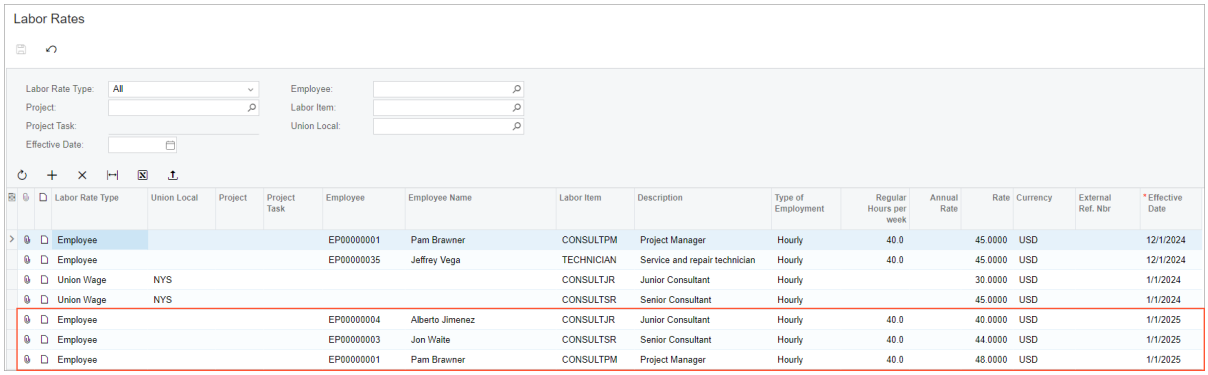


Figure: The added labor cost rates

You have completed configuring labor cost rates.

Employee Time Billing: Process Activity

This activity will walk you through the process of billing employee time spent on a particular project.

Story

Suppose that Lake Cafe has requested 40 hours of training on operating juicers that were previously purchased from and installed by the SweetLife Fruits & Jams company. Jon Waite, SweetLife's senior consultant, has provided 16 hours of training (three hours on Monday, January 27, 2025; five hours on Tuesday, January 28; and eight hours on Thursday, January 30).

Acting as SweetLife's project accountant, Pam Brawner, you need to create a project to account for the provided services. Then acting as Jon Waite, you need to enter a time card to log the work related to the project. Finally, again acting as Pam Brawner, you need to bill the project and review the invoice prepared for the customer.

Configuration Overview

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

- The *Project Accounting* feature has been enabled on the *Enable/Disable Features* (CS100000) form.
- The *54100 (Project Labor Expense)* account is mapped to the *LABOR* expense account group, which has been defined on the *Account Groups* (PM201000) form.
- On the *Billing Rules* (PM207000) form, the *TM* billing rule has been created, and a step for billing project transactions associated with the *LABOR* account group has been added to the rule.
- On the *Customers* (AR303000) form, the *LAKECAFE (Lake Cafe)* customer has been created.
- On the *Projects* (PM301000) form, the *TRAINCAF* project has been configured.

Process Overview

You will create and release a time card on the *Employee Time Cards* (EP406000) form. You will review the project transaction generated based on the time card on the *Project Transactions* (PM304000) form. Next, you will bill the project on the *Projects* (PM301000) form, and release both the prepared pro forma invoice on the *Pro Forma Invoices* (PM307000) form and the AR invoice on the *Invoices and Memos* (AR301000) form. Finally, on the *Projects* form, you will make sure that the project cost and revenue budget have been updated with the billed employee time.

System Preparation

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

1. Sign in to the system as Jon Waite by using the *waite* username and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, click the Business Date menu button, and select *1/30/2025* on the calendar.

Step 1: Entering an Employee Time Card

In this step, you will enter Jon Waite's working hours for the project by creating an employee time card as follows:

1. On the form toolbar of the *Employee Time Cards* (EP406000) form, click **Add New Timecard** to create a new time card. The system opens the *Employee Time Cards* (EP305000) form with the new time card created for the employee who is currently signed in (Jon Waite).
2. In the Summary area, make sure that *2025-05 (01/26 - 02/01)* is specified in the **Week** box. This is the work week during which the work for the project has been performed.
3. On the **Summary** tab, add a row, and specify the following settings:
   - **Earning Type**: *RG* (inserted automatically)
   - **Project**: *TRAINCAF*
   - **Project Task**: *TRAINING* (inserted automatically)
   - **Cost Code**: *00-000*
   - **Labor Item**: *CONSULTSR* (inserted automatically)
   - **Mon**: `03:00`
   - **Tue**: `05:00`
   - **Thu**: `08:00`
   - **Time Spent**: *16:00* (calculated and inserted automatically)

     When you enter hours in the columns representing the days of the week for any row, the system calculates the **Time Spent** in the Summary area as the sum of all these columns.

- **Billable**: Selected (selected automatically based on the settings of the selected earning type)
- **Description**: `Training provided by senior consultant`
- **Approval Status**: *Not Required* (inserted automatically)

4. Save the time card.
5. On the form toolbar, click **Submit** to submit the time card. The status of the time card is changed to *Approved*.
6. On the form toolbar, click **Release** to release the time card; its status is changed to *Released*.
7. On the form toolbar, click **View Transactions**. On the *Project Transactions* (PM304000) form, the system opens the project transaction that has been generated based on the released time card. Notice that the system has created a separate project transaction line for each time activity within the time card. The total billable quantity of the transaction is 16, which is the quantity of reported hours, and the total amount is calculated based on the billable quantity and employee labor cost as follows:

   `16.00 * 44.00 = 704.00`
8. Sign out of the system.

Step 2: Billing the Project

To review the cost budget of the project and bill the project on behalf of the project accountant, 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, click the Business Date menu button, and select *2/5/2025* on the calendar.
3. On the *Projects* (PM301000) form, open the *TRAINCAF* project.

   On the **Cost Budget** tab, notice that the system has updated the actual quantity and amount with the data of the project transaction that was generated on release of the time card, as shown in the screenshot below.

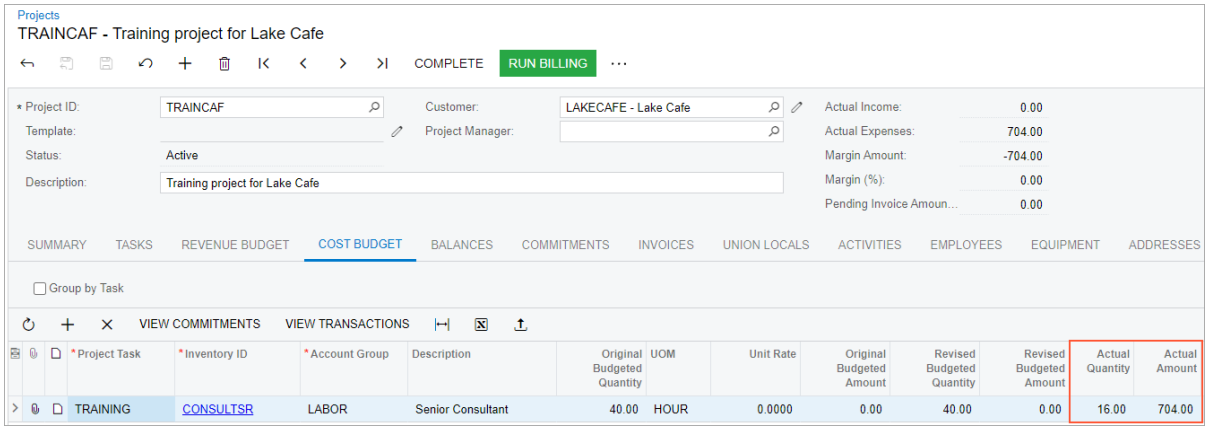


Figure: The cost budget updated based on the released time card

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.

   On the **Time and Material** tab of this form, notice that based on the settings of the step of the *TM* billing rule that processes the project transactions associated with the *LABOR* account group, the invoiced amount for each line has been calculated as the amount of the related project transaction line (that is, the cost of the provided employee labor) multiplied by 1.25. The total invoiced amount is $880 ($704.00 * 1.25).
5. On the form toolbar, click **Remove Hold** to assign the pro forma invoice the *Open* status, and then click **Release** to release the pro forma invoice.

6. On the **Financial** tab, click the **AR Ref. Nbr.** link to open the accounts receivable invoice that has been created.
7. On the form toolbar of the *Invoices and Memos* (AR301000) form that opens, click **Remove Hold** to assign the invoice the *Balanced* status, and then click **Release** to release the accounts receivable invoice.
8. On the *Projects* form, open the *TRAINCAF* project, and in the only line on the **Revenue Budget** tab, make sure that the **Actual Amount** is now $880.

You have billed the project for the employee labor.

Employee Time Billing: Generated Transactions

To be able to bill customers for employee time spent on particular projects, you configure time tracking in projects. When project-related time cards are released, the system generates the transactions described in the following sections.

Project Transaction Generated for a Time Card

When you release a project-related time card, the system generates the following project transaction for each time activity in the time card line.

Project and Project Task	Account Group	Inventory ID	Billable Quantity	Unit Rate	Amount
Project and project task in the time card line	Account group mapped to Expense account	Labor item in the time card line	Reported billable hours in the time card line	Labor cost rate defined on the *Labor Rates* (PM209900) form	Billable quantity * unit rate

You can review the project transaction that was generated on release of a particular time card by opening a time card on the *Employee Time Cards* (EP305000) form and clicking **View Transactions** on the form toolbar.

GL Transaction Generated from a Project Transaction

When a project transaction related to time card is released, the system creates a batch of the following accounting transactions.

Account	Project	Project Task	Debit	Credit
Expense account defined by the **Expense Account Source** setting on the *Projects Preferences* (PM101000) form	The value in the time card line	The value in the time card line	Billable quantity * unit rate	0.00

Account	Project	Project Task	Debit	Credit
Expense Accrual account defined by the **Expense Accrual Account Source** setting on the *Projects Preferences* form	Non-project code	Empty	0.00	Billable quantity * unit rate

You can view the reference number of the GL batch in the **GL Batch Nbr.** box in the project transaction line on the *Project Transactions* (PM304000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

GL Transaction Generated from an AR Invoice

When an AR invoice generated by the project billing procedure is released, the system creates a batch of the following accounting transactions.

Account	Project	Project Task	Debit	Credit
Accounts Receivable account of the customer	Non-project code	Empty	Invoiced amount	0.00
Sales account of the labor item	The value in the time card line	The value in the time card line	0.00	Invoiced amount

You can view the reference number of the GL batch in the **GL Batch Nbr.** box in the project transaction line on the *Project Transactions* (PM304000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Project Transactions Generated from GL Transaction

When the batch of GL transactions generated on release of an AR invoice generated by the project billing procedure is released, the system generates the following project transaction for each invoice line.

Project and Project Task	Account Group	Inventory ID	Amount	Debit Account
The values in the time card line	Account group mapped to the Sales account	Labor item assigned to the employee	Amount calculated by billing rule	Sales account of the labor item

You can review the project transaction that was generated on release of a particular time card by opening a time card on the *Employee Time Cards* (EP305000) form and clicking **View Transactions** on the form toolbar.

Employee Time Billing: 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 employee time spent on a project.

Reviewing Time-Tracking Documents for a Project

You can review the list of all time cards and time activities (if applicable) that relate to a particular project on the **Activities** tab of the *Projects* (PM301000) form.

Reviewing Time Cards for an Employee

You can review the list of time cards submitted by a particular employee on the *Employee Time Cards* (EP406000) inquiry form. You select the employee in the **Employee** box of the Selection area, and the system groups this employee's time cards by their status.

Reviewing Time Activities for an Employee

You can review the list of time activities on the *Employee Time Activities* (EP307000) form. In the Summary area of this form, you select an employee and the time range (in weeks) for which you want to review the time activities submitted by the employee. You can also select a particular project (and, optionally, a project task) to review only the time activities that have been performed by the employee for the project.

You can review all existing time activities in the system on the *Activities* (EP404300) form.

Finding Project Transaction Generated for Time Card

You can review the project transaction that was generated on release of a particular time card by opening a time card on the *Employee Time Cards* (EP305000) form and clicking **View Transactions** on the form toolbar. The system opens the project transaction on the *Project Transactions* (PM304000) form.

Part 3: Single-Tier Change Management

This part describes how you can track changes to the project revenue and cost budget by using the functionality of change orders.

Lesson 9: Tracking Changes to the Budget

This lesson explains how to turn on the change order workflow for a project and how to process a change order to update the project budget based on a customer's request. You will also learn how to reflect these changes at the project budget level.

Single-Tier Change Management: General Information

Acumatica ERP provides change order functionality, which you can use to track changes to project's budgeted and committed values and to control the profitability of every change initiated by a customer. A change order is a document for profitability analysis and an audit of changes to the project revenue budget, commitments, and budgeted costs. Change orders do not alter the original figures of a project directly. They are tracked in separate project budget columns.

Learning Objectives

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

- Configure a change order class
- Create a change order for a project
- Update the project budget with the change order
- Review the changes made with change orders in the project budget
- Prevent direct purchases for the project

Applicable Scenarios

You turn on the change order workflow for a project if you want to control changes made to the budgeted and committed values of the project budget and to track these changes at the budget level. To make changes to the project budget, you create change orders that do not alter the original budgeted and committed values.

You prevent the direct creation of purchase orders for the project if you want to create new purchase orders only by means of change orders to track these purchases as changes to the project budget.

Change Order Classes

A change order class defines which project data—the revenue budget, the cost budget, or commitments—can be adjusted with a change order of this class. You must specify a change order class for each change order you create, so you first need to configure change order classes on the *Change Order Classes* (PM203000) form.

To allow users to make changes to the project budget by using a change order of a particular class, on the *Change Order Classes* form, you select any combination of the following check boxes for the change order class:

- **Revenue Budget**: To allow changes to the revenue budget
- **Cost Budget**: To allow changes to the cost budget

- **Commitments**: To allow changes to committed values. For more information, see *Change Orders for Commitments: General Information*.

Change order classes also make it possible to group change orders by their impact on projects. For example, you can segregate changes by class in reports to analyze which types of changes have the greatest impact on project profitability.

Once you have created change order classes, you specify the change order class to be used by default in newly created change orders in the **Default Change Order Class** box on the **General** tab of the *Projects Preferences* (PM101000) form.

In a new change order, you can override the change order class that the system has inserted by default. If no default change order class has been specified on the *Projects Preferences* form, you must select the change order class manually on the *Change Orders* (PM308000) form.

Change Order Workflow

To make it possible for users to track changes for a project by using change orders, you select the **Change Order Workflow** check box on the **Summary** tab of the *Projects* (PM301000) form for the project. You need to select this check box for each project for which you want to turn on the change order workflow.

Once you have selected this check box for a project, you create a change order for the project on the *Projects* form by clicking **Create Change Order** on the More menu. The system creates a change order with the *On Hold* status and the project selected and opens it on the *Change Orders* (PM308000) form.

In a change order with the *On Hold* status, on the **Revenue Budget** and **Cost Budget** tabs of the *Change Orders* form, you can increase and decrease values in existing project budget lines as well as create new budget lines. When you edit a change order line, you can see the following values: the original budgeted amount in the **Original Budgeted Amount** column; the released and draft change order (CO) amounts in the **Previously Approved CO Amount** and **Other Draft CO Amount** columns, respectively; and the updated budgeted amount in the **Revised Budgeted Amount** column.

When a change order is saved with the *On Hold* status, the **Quantity** and **Amount** values of a revenue budget line or cost budget line of the change order increase the **Potential CO Quantity** and **Potential CO Amount** of the corresponding revenue budget line or cost budget line of the project on the *Projects* form.

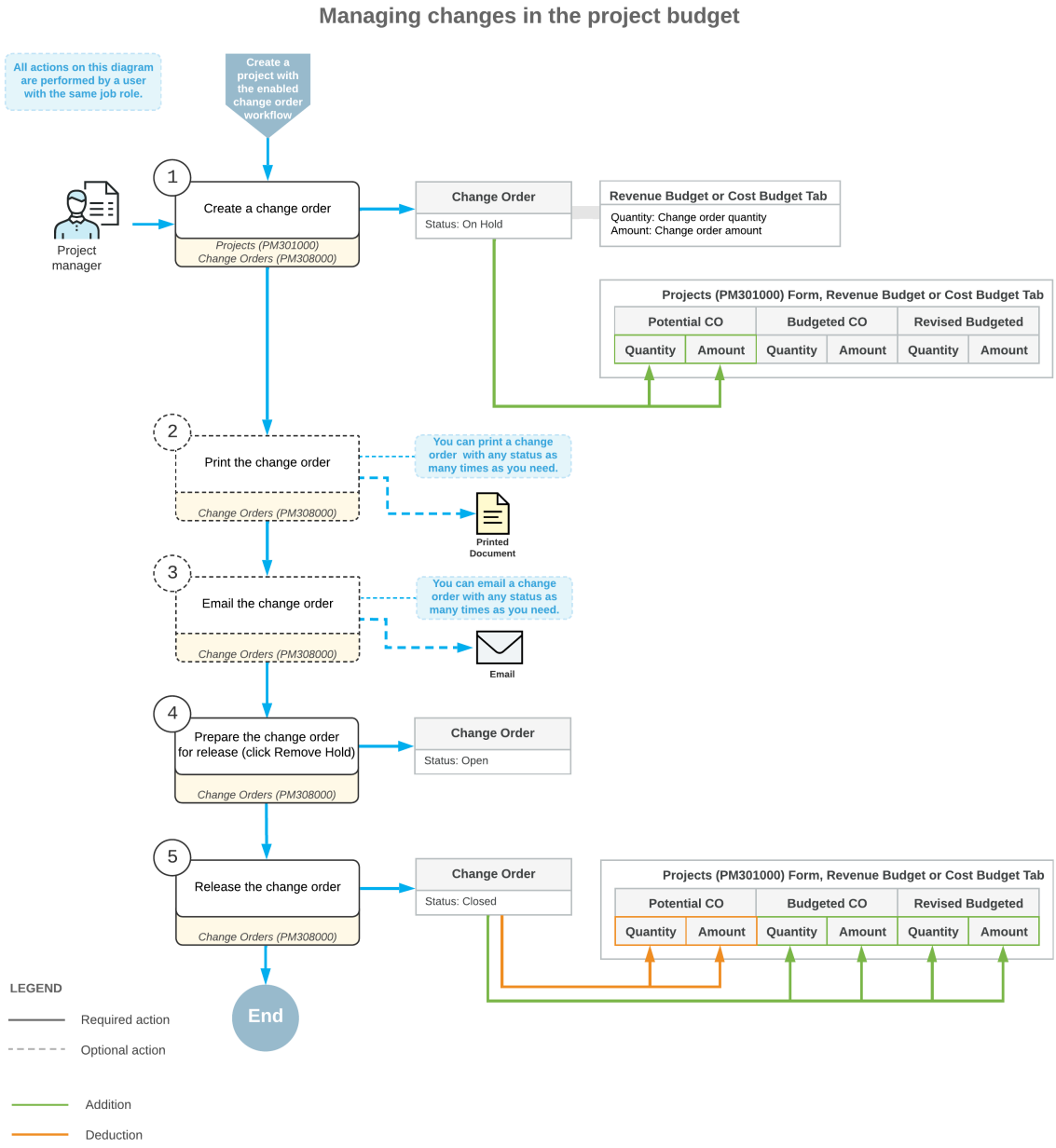
A change order can be printed or emailed to the customer. To print the change order, on the More menu of the *Change Orders* form, you click **Print**. To email the change order, on the More menu of the same form, you click **Email**.

When a change order is released, the **Potential CO Quantity** and **Potential CO Amount** of the corresponding budget lines are decreased and the **Budgeted CO Quantity** and **Budgeted CO Amount** are increased on the *Projects* form. The change order is assigned the *Closed* status.

You can cancel a change order by clicking **Cancel** on the form toolbar of the *Change Orders* form to indicate that the changes will not be processed further. The system assigns the change order the *Canceled* status and decreases the potential CO values of the corresponding revenue budget lines and cost budget lines of the project on the *Projects* form.

Workflow of Managing Changes to the Project Budget

The following diagram illustrates the workflow of managing changes to the project budget.



Update of the Project Budget when a Change Order Is Released

When a change order is released, the budgeted values of the corresponding project on the *Projects* (PM301000) form are updated as follows:

- If the project has a revenue budget line with the same project task, account group, and inventory item as a revenue budget line of the change order, the system updates the following columns of the revenue budget line of the project on the **Revenue Budget** tab, with the column values computed as noted:
  - **Budgeted CO Quantity** = The total quantity of released change orders
  - **Budgeted CO Amount** = The total amount of released change orders
  - **Revised Budgeted Quantity** = **Original Budgeted Quantity** + **Budgeted CO Quantity**
  - **Revised Budgeted Amount** = **Original Budgeted Amount** + **Budgeted CO Amount**

- **Pending Invoice Amount** = **Revised Budgeted Amount** * **Completed (%)** / 100 – **Actual Amount** – **Draft Invoice Amount**

  > As the result of the update of the **Pending Invoice Amount**, the amount can be a rational value, including a negative one.

- If the project has a cost budget line with the same project task, account group, and inventory item as a cost budget line of the change order, the system updates the following columns of the cost budget line of the project on the **Cost Budget** tab, with the column values calculated as follows:
  - **Budgeted CO Quantity** = The total quantity of released change orders
  - **Budgeted CO Amount** = The total amount of released change orders
  - **Revised Budgeted Quantity** = **Original Budgeted Quantity** + **Budgeted CO Quantity**
  - **Revised Budgeted Amount** = **Original Budgeted Amount** + **Budgeted CO Amount**
- If the project does not have a revenue or cost budget line with the same project task, account group, and inventory item as a revenue or cost budget line of the change order, the system creates a new revenue or cost budget line for the project based on the revenue or cost budget line of the change order. In this newly created budget line, the unit rate is copied from the corresponding change order line.

Single-Tier Change Management: To Track Changes to the Project Budget

In this activity, you will learn how you can turn on the change order workflow for a project and manage changes to the project's budgeted values by creating change orders.

Story

Suppose that the Thai Food Restaurant customer has ordered two juicers, along with eight hours of the installation service from the SweetLife Fruits & Jams company. SweetLife's project accountant has created a project and configured the revenue and cost budgets based on the agreement reached with the customer. During project execution, the customer requests one more juicer, along with the installation, as a part of the same project. The project accountant has estimated that the installation of this additional juicer will require five hours of the installation service. Also, the project accountant has decided to track these changes to the project at the budget level because the installation of the third juicer was not planned initially.

Acting as the project accountant, you will turn on the change order workflow for the project to be able to track changes to the project budget. Then you will create a change order to update the project budget according to the customer's request and to reflect these changes at the project budget level.

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
  - *Change Orders*, which gives you the ability to manage changes to the project's budgeted and committed values
- On the *Projects* (PM301000) form, the *TOMYUM6* project has been created and the *INSTALL* project task has been created for the project.
- On the *Change Order Classes* (PM203000) form, the *DEFAULT* change order class has been created.
- On the *Projects Preferences* (PM101000) form, the *DEFAULT* change order class has been selected in the **Default Change Order Class** box on the **General** tab (**General Settings** section).

Process Overview

In this activity, you will turn on the change order workflow for the project on the *Projects* (PM301000) form. Then you will create and process a change order for the project on the *Change Orders* (PM308000) form. Finally, you will review how the changes have affected the values in the project budget.

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.

Step 1: Turning on the Change Order Workflow for the Project

To turn on the change order workflow for the project, which makes it possible to create change orders for the project, do the following:

1. On the *Projects* (PM301000) form, open the *TOMYUM6* project.
2. On the **Summary** tab, select the **Change Order Workflow** check box to turn on the change order workflow for the project.
3. Save your changes to the project.

   Since you turned on the change order workflow for the project, the **Revised Budgeted Quantity** and **Revised Budgeted Amount** columns on the **Revenue Budget** and **Cost Budget** tabs have become read-only. Now you can make changes to these values only by using the change orders.

Step 2: Creating a Change Order for the Project

To make changes to the project budget by creating a change order, do the following:

1. While you are remaining on the *Projects* (PM301000) form with the *TOMYUM6* project selected, on the More menu, click **Create Change Order**. The system creates a change order for the project and opens it on the *Change Orders* (PM308000) form.

   Notice that the system has automatically selected the *DEFAULT* change order class for the change order because this class is the default change order class specified on the *Projects Preferences* (PM101000) form.
2. In the Summary area of this form, in the **Description** box, enter `One more juicer with installation requested by the customer`.
3. On the **Revenue Budget** tab, click **Add Row** on the table toolbar and specify the following settings in the row:
   - **Project Task**: *INSTALL*
   - **Account Group**: *REVENUE*
   - **Description**: `Additional juicer with installation`
   - **Amount**: `2900`

     When you enter the **Amount** of the line, which represents the additional revenue, the system calculates the **Revised Budgeted Amount** as the sum of the **Original Budgeted Amount** and the **Amount**.
4. On the table toolbar of the **Cost Budget** tab, click **Add Budget Lines**.
5. In the **Add Budget Lines** dialog box, which opens, select the unlabeled check box for both cost budget lines, and click **Add Lines & Close**.

   The system closes the dialog box and adds the selected lines to the change order.

6. In the added budget line with the *LABOR* account group (which is the line for the *INSTALL* item), enter `5` in the **Quantity** column.
7. In the line with the *MATERIAL* account group (which is the line for the *JUICER15* item), enter `1` in the **Quantity** column.

   The system automatically calculates the **Amount** value based on the **Unit Rate** value of the line, which is inherited from the project budget line. In the line, the system also calculates the **Revised Budgeted Quantity** value as the sum of the **Original Budgeted Quantity** and **Quantity** values, and it calculates the **Revised Budgeted Amount** value as the sum of the **Original Budgeted Amount** and **Amount** values.

   When you specify changes to the project budget, the revenue budget change total in the Summary area becomes $2,900 and the cost budget change total becomes $2,400. Until you release the change order, these changes will not affect the project budget.
8. Save your changes to the change order.
9. On the More menu, click **Print** to print the change order.

   The system navigates to the *Change Order* (PM643000) report, which is a ready-to-print version of the change order. The printed form lists the revenue budget lines of the change order, which the customer might need to review and agree to.
10. Click Back in the browser tab to return to the change order on the *Change Orders* form.
11. On the form toolbar, click **Remove Hold** to assign the change order the *Open* status. Then click **Release** to release the change order.
12. On the *Projects* form, open the *TOMYUM6* project.
13. On the **Change Orders** tab, make sure the change order you have created is shown. The change order has the *Closed* status.
14. On the **Cost Budget** tab, review the cost budget lines that have been updated by the change order you have processed (see the screenshot below).

    The system has calculated the **Revised Budgeted Quantity** as the sum of the **Original Budgeted Quantity** and the **Budgeted CO Quantity**, and it has calculated the **Revised Budgeted Amount** as the sum of the **Original Budgeted Amount** and the **Budgeted CO Amount** (see the following screenshot). The **Budgeted CO Quantity** and **Budgeted CO Amount** are the quantity and amount of the change order.

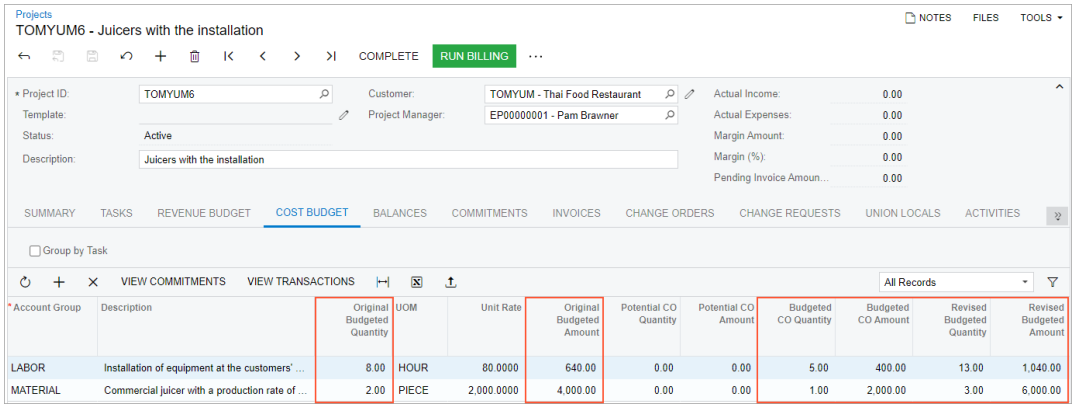


Figure: The cost budget updated with the change order

You have processed a change order for the project.

Lesson 10: Tracking Changes to Commitments

This lesson describes how you can use the functionality of change orders to track changes to the project commitments. This gives you the ability to control the profitability of every change initiated by a customer.

Change Orders for Commitments: General Information

By using the change order functionality in Acumatica ERP, you can manage changes to a project's committed values if the commitment functionality has been configured for project accounting. For more information on commitments, see *Committed Costs: General Information*.

Learning Objectives

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

- Create a change order class for tracking commitments
- Update cost commitments with a change order
- Review the changes to the project budget that have been made with change orders
- Make changes to closed commitments

Applicable Scenarios

You turn on the change order workflow for a project and enable commitment tracking if you want to distinguish purchases within the cost budget of a project, control changes made to the committed values of the project budget, and track these changes at the budget level. To make changes to the project budget, you create change orders, which do not alter the original committed values.

Configuration of a Change Order Class

If the **Internal Cost Commitment Tracking** check box is selected on the **General** tab (**General Settings** section) of the *Projects Preferences* (PM101000) form, the system exposes commitments on the *Commitments* (PM306000) form. To allow users to make changes to commitments, you configure a change order class on the *Change Order Classes* (PM203000) form. On this form, you select the **Commitments** check box to allow changes to committed values.

Change Orders for Project Commitments

You can track changes to project commitments that have been created based on project-related subcontracts and purchase orders that have the *Normal* and *Project Drop-Ship* type.

On the *Change Orders* (PM308000) form, in a change order with the *On Hold* status, you can process the following changes to a project's committed values:

- Creating a new purchase order or subcontract for a project
- Adding a new line to an existing purchase order or subcontract
- Adjusting an existing purchase order or subcontract by adding a new negative line
- Making an addition to or deduction from an existing purchase order or subcontract with a positive or negative amount

> ⚠ The amount of a negative change order line may not exceed the **Line Total** amount of the purchase order.

- Making an addition to or deduction from an existing purchase order line or subcontract line with a positive or negative amount

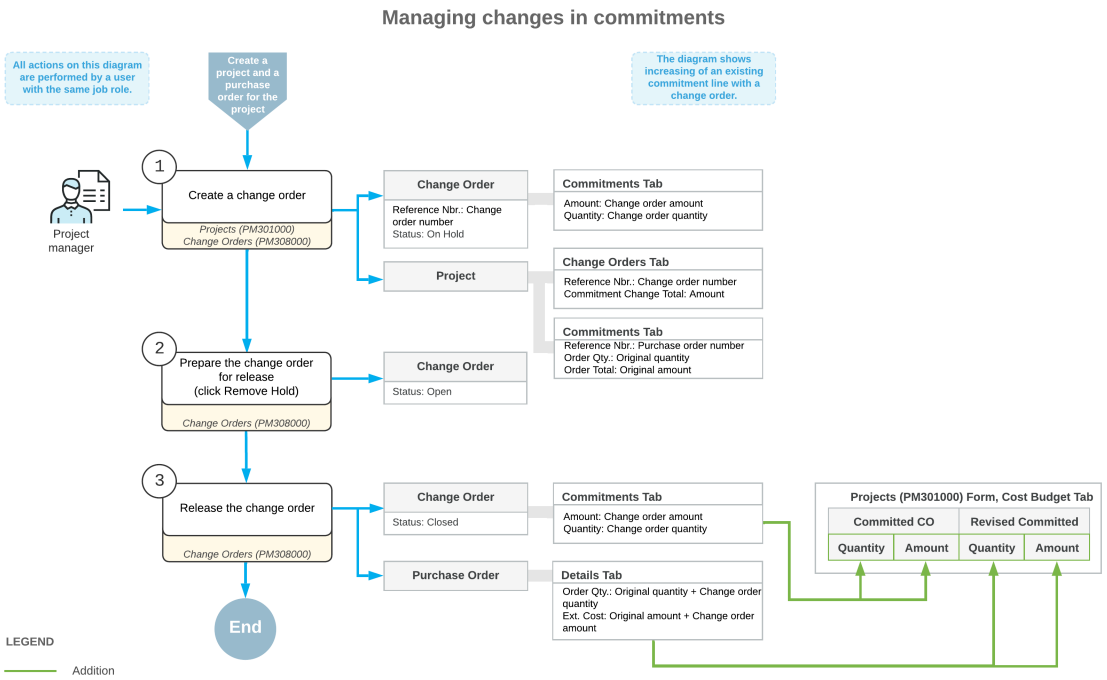
> ⚠ The quantity and amount of a negative change order line may not exceed the received or billed quantities and amounts of the purchase order.

- Reopening a purchase order or subcontract

When you release the change order, based on the **Quantity** and **Amount** of a commitment line on the **Commitments** tab of the *Change Orders* form, the system updates the related commitment document or creates a new one, depending on the type of the commitment line, and updates the **Committed CO Quantity**, **Committed CO Amount**, **Revised Committed Quantity** and **Revised Committed Amount** of the corresponding cost budget line of the project on the *Projects* (PM301000) form. For more information, see *Change Orders for Commitments: Commitment Updates on Release of Change Orders*.

Workflow of Managing Changes to Commitments

The following diagram illustrates the workflow of managing changes to commitments.



Change Orders for Commitments: To Create a Change Order Class

This activity will walk you through the process of configuring a change order class.

Story

Suppose that you, as the system administrator of the SweetLife Fruits & Jams company, need to configure a change order class to be used by a purchase manager for creating change orders for project commitments. The change order class must prevent users from changing the revenue and cost budgets of a project.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS100000) form:

- *Project Accounting*, which provides support for the project accounting functionality
- *Change Orders*, which gives you the ability to track changes to projects with change orders

Process Overview

You will configure a change order class on the *Change Order Classes* (PM203000) form.

System Preparation

To prepare to perform the instructions of this activity, sign in to the system as the system administrator by using the *gibbs* username and the *123* password.

Step: Creating a Change Order Class

To create a change order class that will be used for creating change orders for project commitments, perform the following instructions:

1. On the *Change Order Classes* (PM203000) form, add a new record.
2. In the Summary area, enter the following settings:
   - **Class ID**: `COMMITMENT`
   - **Description**: `Change orders to commitments`

   Notice that the **Active** check box is selected by default.
3. Clear the **Cost Budget** and **Revenue Budget** check boxes, and leave the **Commitments** check box selected. With these settings, for the change orders with this class selected, users can make changes to only commitments without the cost and revenue budgets being affected.
4. Save the change order class.

You have defined a change order class that can be used for creating change orders that affect project commitments.

Change Orders for Commitments: Process Activity

In this activity, you will learn how you can track changes to project commitments with change orders.

Story

Suppose that the HM's Bakery and Cafe customer has ordered the services of installation and employee training on operating the previously bought juicer from the SweetLife Fruits & Jams company. The project accountant

of SweetLife has created the project in Acumatica ERP and ordered the following services from the Squeezo Inc. vendor:

- Three hours of juicer installation
- Eight hours of training on operating the juicer

The vendor has provided the services. Acting as the project accountant, you will create a purchase order with both of the provided services in the appropriate quantities. You will then receive the invoice from the vendor and realize that the quantity of the provided services differs from the quantity of the ordered services as follows:

- An hour of an additional service, the site review, was provided.
- The vendor also provided and installed a feeder basket for the juicer.
- The installation took one hour more than the ordered number of hours.
- The training took two hours less than the ordered number of hours.

Per the agreement with the vendor, you will adjust the provided services within the created purchase order and create a new purchase order for the feeder basket.

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
  - *Change Orders*, which gives you the ability to manage changes to the project's budgeted and committed values
  - *Inventory and Order Management* feature, which provides the functionality of purchase orders
- On the *Projects* (PM301000) form, the *HMBAKERY12* project has been created and the *INSTALL* project task has been created for the project. This project task is also the default task of the project. On the **Summary** tab of the form (**Project Properties** section), the **Change Order Workflow** check box is selected for the project so that users can track all the changes to the budgeted values by using change orders.
- On the *Non-Stock Items* (IN202000) form, the *SITEREVIEW*, *INSTALL*, and *TRAINING* non-stock items have been defined.
- On the *Stock Items* (IN202500) form, the *BASKET* stock item has been defined.
- On the *Vendors* (AP303000) form, the *SQUEEZO* vendor has been created.

Process Overview

In this activity, you will create a purchase order on the *Purchase Orders* (PO301000) form. On the *Commitments* (PM306000) form, you will review the commitments that the system has made to the project based on the purchase order. You will also review the corresponding committed values of the project budget on the *Projects* (PM301000) form. On the *Change Orders* (PM308000) form, you will create a change order to adjust the created commitments. You will then modify and process the created change order on the *Change Orders* form.

System Preparation

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

1. Sign in to the system as Pam Brawner using the *brawner* username and *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 *1/30/2025*. 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. Open the *Projects Preferences* (PM101000) form, and on the **General** tab (**General Settings** section), select the **Internal Cost Commitment Tracking** check box to expose commitments and committed values in the project budget, and save your changes to the project accounting preferences.

Step 1: Creating Commitments for the Project

To create a purchase order for the project, which entails the creation of commitments, do the following:

1. On the *Purchase Orders* (PO301000) form, add a new record.
2. In the Summary area, enter the following settings:
   - **Vendor**: *SQUEEZO*
   - **Description**: `Purchase for HM's Bakery and Cafe`
3. On the **Details** tab, add two purchase order lines, and specify the settings shown in the following table in the lines you add.

Inventory ID	Order Qty.	Project	Cost Code
INSTALL	3	*HMBAKERY12*	*00-000*
TRAINING	8	*HMBAKERY12*	*00-000*

The system inserts *INSTALL* as the project task in each line because this is the default task of the *HMBAKERY12* project.

4. Save the purchase order.
5. On the form toolbar, click **Remove Hold**. The system assigns the purchase order the *Open* status and creates commitments for the project.
6. In the Summary area of the *Commitments* (PM306000) form, select *HMBAKERY12* in the **Project** box, and make sure the other boxes are cleared. In the table, review the commitments that the system created when you saved the purchase order with the *Open* status. There are two commitments:
   - The commitment with the *INSTALL* item and committed original and revised amounts of $240
   - The commitment with the *TRAINING* item and committed original and revised amounts of $320
7. On the *Projects* (PM301000) form, open the *HMBAKERY12* project, and on the **Commitments** tab, notice that the project has only one related purchase order, which is the one you have just created. On the **Cost Budget** tab, review the original committed values and the revised committed values. Notice that the original committed quantity of each line equals the revised committed quantity (8 for the *TRAINING* item and 3 for the *INSTALL* item) and the original committed amount of each line equals the revised committed amount ($320 for the *TRAINING* item and $240 for the *INSTALL* item).

Step 2: Changing the Project Commitments

To change the project commitments by using a change order, do the following:

1. While you are remaining on the *Projects* (PM301000) form with the *HMBAKERY12* project selected, on the More menu, click **Create Change Order**. The system creates a change order and opens it on the *Change Orders* (PM308000) form.
2. In the Summary area, specify the following settings:
   - **Class**: *COMMITMENT*
   - **Description**: `Adjustment to the purchase orders from Squeezo Inc.`

3. On the **Commitments** tab, to increase the quantity and amount of an existing line of the purchase order, do the following:
   a. On the table toolbar, click **Add Commitments**.
   b. In the **Add Commitments** dialog box, which opens, select the unlabeled check box in the line with the *INSTALL* inventory item and a line amount of $240, and click **Add Lines & Close**.

      The system adds the selected purchase order line to the change order and closes the dialog box. Notice that the status of the added line is *Update*.
   c. In the added line, enter `1` in the **Quantity** box.

      When you update the **Quantity** value, the system automatically calculates the **Amount** value ($80) based on the **Unit Cost** of the line.

      The system also calculates the **Potentially Revised Quantity** value, which is 4, as the sum of the **Order Qty.** and **Quantity** values (3 + 1), and calculates the **Potentially Revised Amount** value, which is $320, as the sum of the **Ext. Cost** and **Amount** values ($240 + $80).
4. To decrease the quantity and amount of an existing line of the purchase order, do the following:
   a. On the table toolbar, click **Add Commitments**.
   b. In the **Add Commitments** dialog box, select the commitment with the *TRAINING* inventory item by selecting the check box in the unlabeled column, and click **Add Lines & Close**.

      The system closes the dialog box and adds the selected purchase order line to the change order. Notice that the status of the added line is *Update*.
   c. In the added line, enter `-2` in the **Quantity** column.

      When you update the **Quantity** value, the system automatically calculates the **Amount** (-$80), **Potentially Revised Quantity** (6), and **Potentially Revised Amount** ($240) values.
5. To add a new line to the existing purchase order, add a new row and specify the following settings for it (see the screenshot below):
   - **Project Task**: *INSTALL*
   - **Cost Code**: *00-000*
   - **Inventory ID**: *SITEREVIEW*
   - **Quantity**: `1`
   - **Unit Cost**: `40`
   - **Commitment Nbr.**: The reference number of the purchase order

     This is the same reference number as was used in the two previous lines.
   - **Description**: `Site review`

   Notice that the system has assigned the line the *New Line* status.
6. To add a new purchase order for the project, add a new row, and specify the following settings for it:
   - **Project Task**: *INSTALL*
   - **Cost Code**: *00-000*
   - **Inventory ID**: *BASKET*
   - **Quantity**: `1`
   - **Unit Cost**: `250`
   - **Vendor**: *SQUEEZO*
   - **Description**: `Feeder basket`

   Notice that the system has assigned the line the *New Document* status.
7. Save your changes to the change order.

The **Commitment Change Total** in the Summary area must be equal to $290, as shown in the following screenshot.

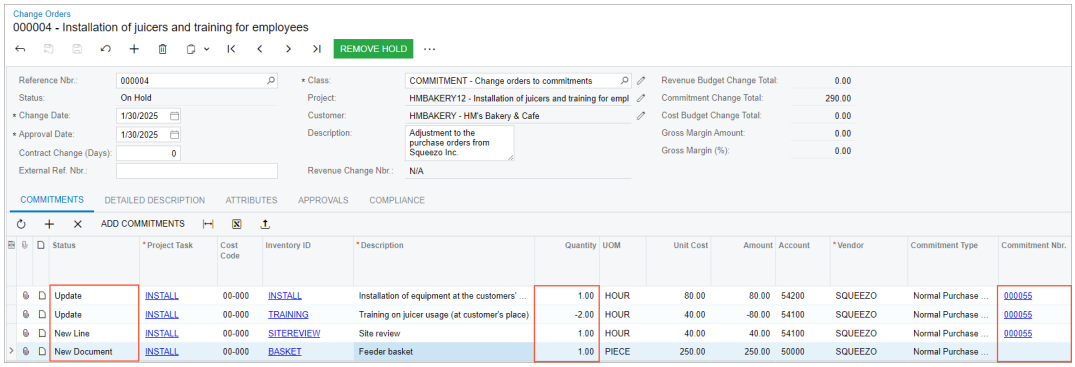


Figure: Changes to project commitments

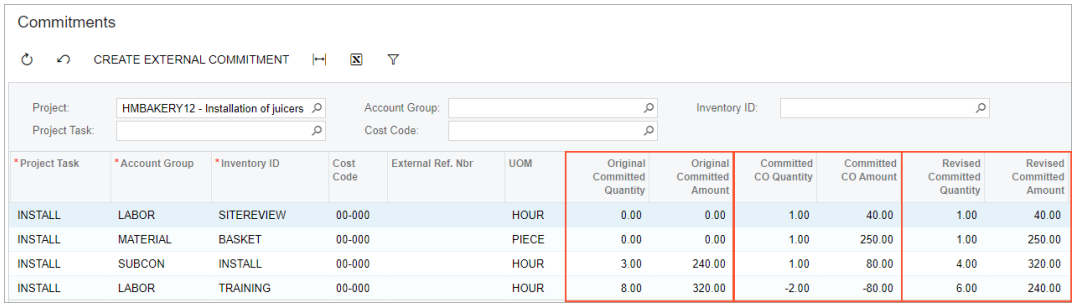
8. On the form toolbar, click **Remove Hold** to assign the change order the *Open* status, and then click **Release** to release the change order.
9. On the *Purchase Orders* (PO301000) form, open the purchase order that you have prepared earlier in this activity, and review how the purchase order has been modified as follows:
   a. On the More menu, notice that the **Hold** command is unavailable. You cannot put the purchase order on hold and make changes to the purchase order because the purchase order has a related change order.
   b. On the **Details** tab, make sure the purchase order now contains three lines. Make sure that the **Order Qty.** is set to *4* in the line with the *INSTALL* item and *6* in the line with the *TRAINING* item. Also, notice the newly added line with the *SITEREVIEW* item and a quantity of *1*.
   c. On the **Change Orders** tab, make sure that three change order lines related to the purchase order are displayed.
10. On the same form, open the second purchase order that was created on release of the change order. This purchase order to the *SQUEEZO* vendor was created based on the change order line with the *New Document* status and has the order total of *250.00*.
11. In the Summary area, review the description of the created purchase order, which contains the number of the change order that the purchase order is based on.
12. On the **Details** tab, make sure that the order has a single line with the *BASKET* inventory item and a quantity of *1*. On the **Change Orders** tab, make sure that the corresponding change order line is displayed.

Step 3: Reviewing the Updated Commitments

To review the commitments that the system has updated based on the change order you have processed earlier in this activity, do the following:

1. Open the *Commitments* (PM306000) form.
2. In the Summary area, select *HMBAKERY12* in the **Project** box. In the table, review the commitments that have been updated.

   Notice that the commitments that have been updated with the change order have nonzero **Committed CO Quantity** and **Committed CO Amount** values. The **Revised Committed Quantity** and **Revised Committed Amount** values of these commitments also differ from the **Original Committed Quantity** and **Original Committed Amount** values, respectively.



* Project Task	* Account Group	* Inventory ID	Cost Code	External Ref. Nbr	UOM	Original Committed Quantity	Original Committed Amount	Committed CO Quantity	Committed CO Amount	Revised Committed Quantity	Revised Committed Amount
INSTALL	LABOR	SITEREVIEW	00-000		HOUR	0.00	0.00	1.00	40.00	1.00	40.00
INSTALL	MATERIAL	BASKET	00-000		PIECE	0.00	0.00	1.00	250.00	1.00	250.00
INSTALL	SUBCON	INSTALL	00-000		HOUR	3.00	240.00	1.00	80.00	4.00	320.00
INSTALL	LABOR	TRAINING	00-000		HOUR	8.00	320.00	-2.00	-80.00	6.00	240.00

Figure: Project commitments updated with the change order

3. On the *Projects* (PM301000) form, open the *HMBAKERY12* project, and on the **Cost Budget** tab, review the updated committed values of the cost budget lines.

   Notice that the system has updated the revised committed values that have been calculated as the sum of the original committed values and committed CO values.

4. On the **Commitments** tab, make sure that the second purchase order created based on the change order has appeared in the table.

You have finished processing a change order for the project commitment.