

# End-User Course

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# Project Billing and Change Management

Training Guide

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# Copyright

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Software Version - 2019 R1

# Introduction

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This course provides a set of lessons that illustrate project accounting processes in a midsize company. The course consists of lessons, each of which provides an overview of the relevant features that have been enabled and the configuration settings that have been specified in the system. Each lesson also provides a story describing a particular user scenario and instructions that guide you through a process in Acumatica ERP. All lessons are independent and can be completed in any order.

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 project budget structure and 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.

The course is designed to be completed on Acumatica ERP 2019 R1. For the educational purposes of this course, you use Acumatica ERP under the trial license, which doesn't require activation and provides all available features. For production, you have to activate the purchased license, and each particular feature may be subject to additional licensing; please consult the Acumatica ERP sales policy for details.

# How to Use This Course

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This end-user course provides a set of lessons that illustrate project accounting processes in a midsize company. The course should be completed on Acumatica ERP 2019 R1. To complete the course, ask your system administrator to deploy an instance of Acumatica ERP for training and to create a tenant and preload the *U100* data set to it; this data set provides the pre-configured settings and entities you will need as you complete the course. (You can find detailed instructions on creating a tenant below.)

## What Is in a Guide?

The guide includes the *Company Story* topic, lessons, concept topics related to these lessons, and the *Additional References* topic. *Company Story* explains the organizational structure of the company preconfigured in the *U100* dataset, as well as the company's business processes and requirements. Concept topics provide general overviews of the processes that are performed in Acumatica ERP. Each of the lessons of the course is dedicated to a particular user scenario and consists of processing steps that you complete.

## 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. At the end of the lesson topics, you can find links to detailed information about the forms used in the lesson.



The lessons are independent and can be completed in any order.

## What Are the Documentation Resources?

All the links listed in the *Forms Used* sections of individual lessons refer to the form documentation available on the <https://help.acumatica.com/> website. The *Additional References* topic provides links to Acumatica ERP Help Portal, where you can find additional information on concepts and procedures that are included in this course. Complete documentation, which includes concept topics and form reference topics, is also included in the Acumatica ERP instance, and you can find these topics under the **Help** menu.

## How to Create a Tenant with the Needed Data

As mentioned, you should ask your system administrator to first deploy an instance of Acumatica ERP for training. The administrator should then add a tenant with the *U100* data to this Acumatica ERP instance by performing the following instructions:

1. Open the Acumatica ERP Configuration Wizard, and click **Perform Application Maintenance**.
2. On the **Application Maintenance** page of the wizard, click the **Tenant Maintenance** button.
3. In the **SQL Server Authentication** dialog box, which appears, specify the credentials for connecting to the database server, and click **OK**. The **Company Setup** page opens.
4. To create the new tenant, click **New**, and in the **Insert Data** column, select the *U100* data to be preloaded to the tenant.
5. Click **Next**, and on the **Confirm Configuration** page, click **Finish**.

The system adds the new tenant to the Acumatica ERP instance and preloads the selected data. In the first processing step of each lesson, you can find the user credentials to be used for sign-in.

# Company Story

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This topic explains the organizational structure and operational activity of the company with which you will work 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 Office and Wholesale Center: This branch of the company consists of a jam factory and a large warehouse where fruit (purchased from wholesale vendors) and the produced jam are stored.
- 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.
- Service and Equipment Sales Center: This branch is a service center with a small warehouse where juicers are stored. This branch sells juicers, installs juicers, trains customers' employees to operate juicers, and provides juicer servicing.

## Operational Activity

The company has been operating starting in the *01-2018* financial period. In November 2018, 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. Because the company has grown, the equipment center has begun its operations in *01-2019*.

## Company Purchases

The company purchases fruits and spices from large fruit vendors for sale and for jam production. For producing jams and packing jams and fruits, the company purchases jars, labels, and paper bags from various vendors. For the internal needs of the main office and store, the company purchases stationery (printing paper, pens, and pencils), computers, and computer accessories from various vendors. The company also purchases juicers for sale from a large juicer vendor and either purchases the installation service or provides the installation service on its own, depending on the complexity of the installation.

## Company Sales and Services

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

- SweetLife Office and Wholesale Center: In this branch, jams and fruit are sold to wholesale customers, such as restaurants and cafés. The company also conducts home canning training at the customer's location, and webinars on the company's website.
- SweetLife Store: In the store, small 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).
- Service and Equipment Sales Center: This branch sells juicers, provides training on equipment use, and offers equipment installation, including site review and maintenance services.

The company has local and international customers. The ordered items are delivered by drivers using the company's own vehicle or through USPS, the third-party carrier that provides delivery nationwide and to some customers outside the United States. Customers can pay for order by cash, check, or credit card.



## **Customer Relationship Management**

The company needs to handle a large number of customers, both current and potential, to maximize its sales opportunities. The customers of the company can be divided into the following two types:

- End customers: Organizations that purchase goods or services, or both, from the company
- Referral partners: Partner organizations that endorse the goods and services of the company

Potential customers of each of these types should be analyzed and processed differently, in accordance with the qualification process adopted by the company.

In its pursuit of new potential customers, the marketing department of the company generates a host of leads from various sources: It purchases lists of leads from third parties; it receives direct phone calls and emails from leads attracted by marketing campaigns or referrals; and the company's website invites any user who is interested in the offered services to fill out an online form, which results in yet more leads. Thus, organizing information meaningfully is among the department's highest priorities.

The marketing department also needs to facilitate the process of assigning leads to sales personnel for qualification.

The sales department of the company aims to create as many opportunities as possible and then bring these opportunities to actual sales. To increase repeated sales and to attract new leads, the company runs frequent marketing campaigns and sends company newsletters and special offers targeted at specific audiences.

# Lesson 1: Integration Between Project Accounting and the General Ledger

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In this lesson, you will learn how the project accounting capabilities of Acumatica ERP are integrated with the general ledger. You will also learn how project transactions affect the general ledger and vice versa.

## Story

Suppose that the Thai Food Restaurant customer has ordered training on how to use a previously bought juicer. The project accountant has created a project for this training, and the training has taken place. The project accountant then needs to enter the general ledger transactions to directly capture the costs involved with delivering this training. You will perform the needed actions in the system, acting as the project accountant.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) form, the *Project Accounting* feature has been enabled to provide support for the project accounting functionality.

On the Projects (PM301000) form, the *TOMYUM1* project has been created.

## Process Overview

On the Journal Transactions (GL301000) form, you create a batch of general ledger transactions. On the Project Transactions (PM304000) form, you create a corresponding batch of project transactions.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Creating General Ledger Transactions

To create a batch of general ledger transactions, do the following:

1. On the Journal Transactions (GL301000) form, create a new batch of general ledger transactions.
2. Add the first row, which represents your expenses for the project, and specify the following settings:
  - **Account:** *54100 - Project Labor Expense*
  - **Project:** *TOMYUM1*
  - **Project Task:** *PHASE1*
  - **Debit Amount:** *320.00*
  - **Transaction Description:** *8 hours of training for the customer's employee*

3. Add the second row, which represents non-project expenses, and specify the following settings:

- **Account:** 81000 - Other Expense
- **Project:** X
- **Debit Amount:** 50.00
- **Credit Amount:** Cleared
- **Transaction Description:** Travel expenses

4. Add the third row, which balances the batch of transactions, and specify the following settings:

- **Account:** 23015 - Accrued Expenses
- **Project:** X
- **Credit Amount:** 370.00

5. Clear the **Hold** check box in the Summary area, and click **Release** on the form toolbar to release the batch of transactions.

When you release the batch of general ledger transactions, for the general ledger transaction with the specified project and project task, the system creates the corresponding project transaction. The account of the general ledger transaction is mapped to the account group of the created project transaction.

6. On the Project Transactions (PM401000) form, in the Summary area, select *TOMYUM1* as the **Project** and review the project transaction that has been created based on the released time activities. Notice that the system creates only one project transaction, because only one corresponding general ledger transaction has the specified project and project task. The corresponding batch of general ledger transactions is shown in the **Batch Nbr.** column.
7. On the Projects (PM301000) form, open the *TOMYUM1* project.
8. On the **Cost Budget** tab, review the cost budget line, which was created based on the batch of general ledger transactions you have just released.
9. Click the cost budget line, and on the table toolbar, click **View Transactions** to review the list of project transactions that correspond to the selected line.
10. On the Project Transactions (PM401000) form, which the system opens in a pop-up window, notice that the corresponding general ledger transaction is shown in the **Batch Nbr.** column.
11. On the Account Groups (PM201000) form, open the *LABOR* account group, and on the **Accounts** tab, review the accounts mapped to the account group.

### Step 3: Creating Project Transactions Without Posting to GL

To create a project transaction that does not affect the general ledger, do the following:

1. On the Project Transactions (PM304000) form, create a new project transaction.
2. In the Summary area, enter A 4-hour training session as the **Description**.
3. Add a new line with the following settings:
  - **Project:** *TOMYUM1*
  - **Project Task:** *PHASE2*
  - **Account Group:** *LABOR*
  - **Inventory ID:** *TRAINING*
  - **Quantity:** 4.00

- **Amount:** 160.00

You leave the **Debit Account** and **Credit Account** columns empty to not create the corresponding general ledger transaction.

4. Save your changes to the project transaction, and release it.

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

Project Transactions ☆ NOTES FILES TOOLS ▾

← SAVE & CLOSE + K < > >| RELEASE REVERSE ALLOCATION 00:00:00

Module:	PM	Orig. Doc. Type:		Total Quantity:	4.00
Ref. Number:	PM00000018	Orig. Doc. Nbr.:		Total Billable Quantity:	4.00
Status:	Released			Total Amount:	160.00
Description:	A 4-hour training session				

VIEW ALLOCATION SOURCE

Project	Project Task	Account Group	Inventory ID	Description	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account	Credit Account	*Date	*Fin. Period	Batch Nbr.
TOMYUM1	PHASE2	LABOR	TRAINING	Training...	HOUR	4.00	☑	4.00	0.0000	160.00			2/1/2019	02-2019	

**Figure: The project transaction that produces no GL transaction**

### Forms Used

In this lesson, you have used the following forms:

[Journal Transactions](#) (GL301000)

[Projects](#) (PM301000)

[Project Transactions](#) (PM304000)

[Project Transactions](#) (PM401000)

[Account Groups](#) (PM201000)

[Project Transactions](#) (PM401000)

# Project Billing

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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 Projects module. The billing procedure is available only for external projects—that is, for projects associated with customers. You can run the billing procedure automatically, manually, or on a schedule. You can enable pro forma invoices for a particular project, which gives you the ability to review and modify billable transactions and amounts in a pro forma invoice before you prepare the final accounts receivable invoice with all information copied from the pro forma invoice.

## Billing Procedure

In Acumatica ERP, you perform project billing by using one of the following forms:

- On the Projects (PM301000) form, you can run billing for the selected project by clicking **Run Project Billing** on the form toolbar. If the project is pending billing, the system creates an invoice with a date that is the same as the **Next Billing Date** of the project. For projects with the *On Demand* billing period, the date of the invoice is the business date.
- On the Run Project Billing (PM503000) form, you can run billing for multiple projects that are pending billing, depending on the **Invoice Date** selected in the Summary area of the form. (By default, this box contains the business date.) The system creates invoices with a date that is the same as the **Invoice Date**.



The form does not show the projects with the **Next Billing Date**, which is specified on the **Summary** tab of the Projects form, is later than the **Invoice Date**, which is specified in the Selection area of the form.

On both forms, the system bills only a project that is pending billing—that is, at least one of the following exist for the project:

- An unbilled 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.

The invoice date is the date of the invoice that the system creates during the billing. The invoice date depends on the form where you run billing as follows:

- On the Projects form, the invoice date is the **Next Billing Date**, which is specified on the **Summary** tab, for all the projects except those that are billed on demand.
- On the Projects form, the invoice date is the business date for all the projects for which the **Billing Period**, which is specified on the **Summary** tab, is *On Demand*.
- On the Run Project Billing form, the invoice date is the **Invoice Date**, which is specified in the Selection area of the form.

Whether the system uses or not the transactions with the date is equal to the invoice date depends on the **Billing Cut-off Date** setting on the Projects Preferences (PM101000) form as follows:

- *Include Trans. created on billing date*: With this setting, the unbilled transaction is ready to be billed if its date is earlier than or the same as the invoice date.
- *Exclude Trans. created on billing date*: With this setting, the unbilled transaction is ready to be billed if its date is earlier than the invoice date.
- A revenue budget line with a nonzero **Pending Invoice Amount** on the **Revenue Budget** tab of the Projects form, including a negative amount.

- An amount postponed to the next billing from a pro forma invoice for which the corresponding Accounts Receivable invoice is released.
- A task with a recurring billing item.

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

- The project status should be *Active*, *Completed*, or *Suspended*.
- The status of the project tasks should be *Active* or *Completed*, and the billing rule should be specified for these tasks.
- The project should have a provision for billing, such as a billable line of the revenue budget associated with the task for a progress billing, or an unbilled project transaction associated with the task within this billing period for a time and material billing.
- The steps of the billing rule should be applicable to the billing provisions. 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 billing procedure depends on the type of a step of the billing rule, which is specified for a project task on the **Tasks** tab of the Projects (PM301000) form, as follows:

- For a *Time and Material* step of a billing rule, the system selects all the outstanding allocated project transactions and generates an invoice based on these transactions and according to the billing rule.
- For a *Progress Billing* step of a billing rule, the system generates an invoice with the billable project revenue, meaning the revenue budget lines with a nonzero **Pending Invoice Amount** listed on the **Revenue Budget** tab of the Projects form.

### Billing Rules

For each project task, the billing process is defined by billing rules, which are defined on the Billing Rules (PM207000) form. For each billing rule, you can create steps of the following types:

- A single *Progress Billing* step to bill pending invoice amounts
- Multiple *Time and Material* steps to bill transactions by different account groups

In a single billing rule, you can mix these types of billing steps, as well as create separate billing rules for each type of step. Each step of a billing rule has a variety of settings that depend on the step type, including the following:

- The account group that is used as a filter to select the transactions for billing by the *Time and Material* billing steps. The system selects all the transactions that are due for billing when the billing procedure is run. Normally, you use for billing the same account group or groups that you use for accumulating the unrecognized revenue. By running billing for these account groups, you recognize the revenue.
- Formulas to define the description of the invoice and each invoice line, to make the system compose these descriptions dynamically during the billing process.
- Formulas to calculate the amount and quantity of the invoice lines created by the *Time and Material* billing steps. 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 the rate tables that can be configured on the Rate Tables (PM206000) form, and those from sales price lists that 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 (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 to make the system create separate invoices for particular steps with the similar invoice group during the project billing (either pro forma invoices or Accounts Receivable invoices, depending on the billing workflow of the project).

During the billing process, the system groups the billable amounts into invoices by 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
- 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.

### Progress Billing

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, and the system uses *Progress Billing* steps of billing rules of the project tasks to process this billing. The project setup and the billing workflow proceed as follows:

- You add a revenue budget line with a **Revised Budgeted Amount** to a project on the **Revenue Budget** tab of the Projects (PM301000) form.
- To provide a billable amount (for example, on a monthly basis), you populate the **Pending Invoice Amount** or **Completed (%)** column on the **Revenue Budget** tab for the revenue budget lines to make the system calculate the **Pending Invoice Amount** as follows:

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

- You run the project billing process to create a pro forma invoice (or an Accounts Receivable invoice, depending on the selected workflow).
- The system creates an invoice with the amounts derived from the **Pending Invoice Amount** column of the **Revenue Budget** tab of the Projects form for the revenue budget lines. The system updates the **Draft Invoices Amount** of the revenue budget lines with the **Pending Invoice Amount** and clears the **Pending Invoice Amount**.
- If the system creates a pro forma invoice (depending on the selected workflow), the invoice lines that are produced by the progress billing steps are displayed on the **Progress Billing** tab of the Pro Forma Invoices (PM307000) form.

### Transaction-Based Billing

This billing workflow is provided for projects that are billed based on project transactions. The system uses the *Time and Material* steps of the billing rules of the project tasks to process this billing. A billing rule may have a number of *Time and Material* steps for different account groups of transactions that should be used to determine the invoiced amounts by different formulas. The *Time and Material* billing can be executed right after the project transactions that match the selection criteria have been provisioned in the system.

The project setup and billing workflow proceeds as follows:

- You run the project billing process to create a pro forma invoice (or an Accounts Receivable invoice, depending on the selected workflow).
- The system creates the invoice based on the unbilled project transactions with amounts calculated by the billing rules of the project tasks.

The system considers in the billing the transactions with a date that is earlier than the billing date and does not consider the transactions with the date that is later than the billing date. The transactions with a date on the billing date are billed if *Include Trans. created on billing date* is selected as the **Billing Cut-off Date** on the Projects Preferences (PM101000) form.

- If the system creates a pro forma invoice, 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.

### **Billing of Postponed Amounts**

With the draft invoice workflow, a user can modify a pro forma invoice and postpone the difference until the next billing. This remaining amount will be billed during the next billing if the Accounts Receivable invoice that contains the line from which the remainder originates is released.



## Lesson 2: Combined Billing Rule

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In this lesson, you will use a combined billing rule so that you can bill a project as a fixed-price project and as a time and material project.

### Story

Suppose that the Thai Food Restaurant customer has ordered a juicer, along with installation and training of the company's employees on operating the juicer. Both companies have agreed that the customer will be billed in two stages. At the first stage, the customer will pay for half of the services, which have a fixed price, and for the juicer. At the second stage (after the project is completed), the customer will pay for the remainder of the project.

The project accountant has created a project. The juicer has been delivered and installed, and a consultant has provided the training. The project accountant needs to update the progress of the project, issue the juicer, and bill the customer for the first stage of the project. You will perform the needed actions in the system, acting as the project accountant.

### Configuration Overview

For the purposes of this lesson, the following features have been enabled on the Enable/Disable Features (CS101000) form:

- *Project Accounting*, which provides support for the project accounting functionality
- *Standard Inventory* feature, which provides the ability to maintain stock items and create and process sales orders and purchase orders

On the Projects (PM301000) form, the *TOMYUM2* project has been created.

On the Billing Rules (PM207000) form, the *COMBINED* billing rule has been created.

### Process Overview

To partially bill a project with a combined billing rule, you issue the stock item for the project on the Issues (IN302000) form. You update the progress of the project on the Projects (PM301000) form and bill the project. You review the created pro forma invoice and release it on the Pro Forma Invoices (PM307000) form. On the Invoices and Memos (AR301000) form, you then review the accounts receivable invoice created based on the pro forma invoice and release the invoice.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

### Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

### Step 2: Issuing a Stock Item for the Project

To directly issue a stock item for the project (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, create a new inventory issue with the following settings:
  - **Description:** A juicer for Thai Food Restaurant
  - **Transaction Details** tab:
    - **Inventory ID:** JUICER15
    - **Quantity:** 1.00
    - **Reason Code:** INISSUEPROJ
    - **Project:** TOMYUM2
    - **Project Task:** PHASE1
2. Save the inventory issue, and release it.
3. On the **Financial Details** tab, click the link in the **Batch Nbr.** box to review the batch of general ledger transactions that was created based on the release of the issue. The batch has been created on the Journal Transactions (GL301000) form, which the system opens in a pop-up window.
4. On the Projects (PM301000) form, open the *TOMYUM2* project.
5. On the **Cost Budget** tab, review the cost budget line that was created based on the inventory issue you have released.
6. Click the cost budget line, and on the table toolbar, click **View Transactions**.
7. On the Project Transactions (PM401000) form, which the system opens in a pop-up window, review the list of project transactions that correspond to the selected line.

### Step 3: Billing the Project

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

1. On the Billing Rules (PM207000) form, open the *COMBINED* billing rule. Review each step of the billing rule by clicking the step in the left pane and reviewing the step settings in the right pane.
2. On the Projects (PM301000) form, open the *TOMYUM2* project and review the following settings:
  - On the **Summary** tab (**Billing and Allocation Settings** section), notice that *COMBINED* billing rule has been specified for the project.
  - On the **Tasks** tab, notice that *COMBINED* billing rule has been specified for the project tasks.
3. On the **Revenue Budget** tab, specify 40.00 as the **Completed (%)** of each revenue budget line.

Notice that the system automatically calculates the **Pending Invoice Amount** of each row, which is calculated with the following formula: Pending Invoice Amount = Revised Amount \* Completed (%) / 100 - (Actual Amount + Draft Invoices Amount)

4. Save your changes to the project.
5. On the form toolbar, click **Run Project Billing**.  
The system creates a pro forma invoice and opens it on the Pro Forma Invoices (PM307000) form.
6. On the **Progress Billing** tab, review the invoice lines, which have been created based on each revenue budget line of the project with a nonzero **Pending Invoice Amount** on the **Revenue Budget** tab of the Projects form.

7. On the **Time and Material** tab, click the line, and on the table toolbar, click **View Transaction Details** to review the list of project transactions corresponding to the invoice line that were billed according to the billing rule settings.
8. In the Summary area, clear the **Hold** check box, and on the form toolbar, 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.
9. On the **Financial Details** tab, click the link in the **AR Ref. Nbr.** box to open the accounts receivable invoice that has been created.
10. On the Invoices and Memos (AR301000) form, which the system has opened in a pop-up window, notice that you cannot edit the document details.
11. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the accounts receivable invoice. Close the window with the pop-up form.
12. On the Projects form, open the *TOMYUM2* project, and on the **Balances** tab (see the following screenshot), review the **Actual Amount** that has been updated as the result of the billing.

Projects NOTES FILES NOTIFICATIONS TOOLS ▾

← SAVE & CLOSE ↶ ↷ + ✕ ⏪ ⏩ RUN PROJECT BILLING CREATE CHANGE ORDER

ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

---

\* Project ID: TOMYUM2  Status: Active  Hold Assets: 0.00  
 Customer: TOMYUM - Thai Food Restaurant  Liabilities: 0.00  
 Template:  Income: 2,772.00  
 \* Description: A juicer with the installation and training for employees Expenses: 2,000.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET **BALANCES** INVOICES CHANGE ORDERS ACTIVITY HISTORY

VIEW TRANSACTIONS |◀ ▶|

Account Group	Description	Original Budgeted Amount	Revised Budgeted Amount	Actual Amount	Performance (%)
<b>Income</b>					
REVENUE	Project Revenue	680.00	680.00	2,772.00	407.65
	<b>Income Totals</b>	<b>680.00</b>	<b>680.00</b>	<b>2,772.00</b>	<b>407.65</b>
<b>Expense</b>					
MATERIAL	Project Material	0.00	0.00	2,000.00	0.00
	<b>Expense Totals</b>	<b>0.00</b>	<b>0.00</b>	<b>2,000.00</b>	<b>0.00</b>

**Figure: The project balances**

**Self-Test Exercise**

Bill the customer one more time for the remaining 60% of the budgeted revenue of the project. For the revenue budget line with the *PHASE1* task, specify the **Pending Invoice Amount** directly instead of **Completed (%)**.

**Forms Used**

In this lesson, you have used the following forms:

- [Billing Rules](#) (PM207000)
- [Issues](#) (IN302000)
- [Journal Transactions](#) (GL301000)
- [Projects](#) (PM301000)
- [Project Transactions](#) (PM401000)

*Pro Forma Invoices* (PM307000)

*Invoices and Memos* (AR301000)

# Lesson 3: Billing Rates for Time and Material Billing

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In this lesson, you will bill a time and material project by using different billing rate models.

## Story

Suppose that the Thai Food Restaurant customer has ordered training on how to use a previously bought juicer. The project accountant has created a project for this training, and the training has taken place. The project accountant needs to bill the customer. You will perform the needed actions in the system, acting as the project accountant.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) form, the *Project Accounting* feature has been enabled to provide the support of project accounting functionality.

On the Projects (PM301000) form, the *TOMYUM3* project has been created.

On the Project Transactions (PM304000) form, the *PM00000002* batch of project transactions related to the project has been created and released.

## Process Overview

To bill a time and material project, you first review the billing rule on the Billing Rules (PM207000) form, the sales prices on the Sales Prices (AR202000) form, and the rate tables on the Rate Tables (PM206000) form. You then bill the project on the Projects (PM301000) form. Finally, you review the created pro forma invoice on the Pro Forma Invoices (PM307000) form.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Billing the Project

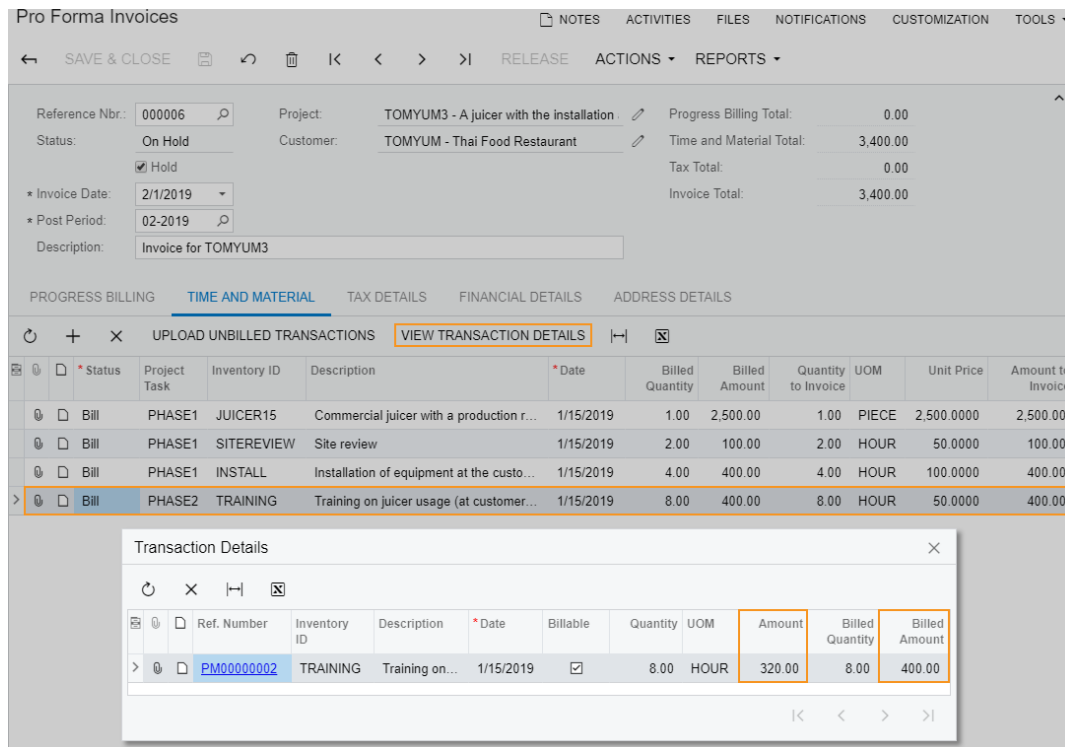
To bill the project by using a billing rule with different billing rate models, do the following:

1. On the Billing Rules (PM207000) form, open the *TIMEMATERIAL* billing rule, and review the settings of the rule.

Notice that the *10 - Material cost plus markup* step uses *@Price* in the formula for the amount. The *20 - Labor from non-stock price* step uses *LABOR* as the rate type and *@Rate* as a multiplier in the formula for the amount. The *30 - Re-invoice subcontractors* step uses a fixed multiplier in the formula for the amount.

2. On the Sales Prices (AR202000) form, review the price of the *JUICER15* inventory item. The *TOMYUM3* project has a cost budget line with this item.

3. On the Rate Tables (PM206000) form, select *STANDARD* as the **Rate Table** and *LABOR* as the **Rate Type**, and review the rate specified on the **Rate** tab and the account group for which the rate is applicable on the **Account Group** tab.
4. On the Projects (PM301000) form, open the *TOMYUM3* project, and review the following settings:
  - On the **Summary** tab, review the billing rule and the rate table specified for the project.
  - On the **Tasks** tab, review the billing rule and the rate table specified for each project task.
  - On the **Cost Budget** tab, review the cost budget of the project. Pay attention to the actual amounts that will be used for billing, because all the project transactions related to the project are unbilled.
5. On the form toolbar, click **Run Project 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 that have been created based on unbilled transactions using the billing rule specified for the project task.
7. Click the line with the *TRAINING* inventory item, and on the table toolbar, click **View Transaction Details**.
8. In the **Transaction Details** dialog box, which the system opens in a pop-up window (see the following screenshot), review the project transaction that corresponds to the selected invoice line and whose amount has been multiplied by *@Rate* to calculate the amount of the line.



**Figure: Project transactions that relate to the pro forma invoice line**

9. Close the window with the pop-up dialog box.
10. Similarly review the project transaction that corresponds to the invoice line with the *JUICER15* inventory item whose quantity has been multiplied by *@Price* to calculate the amount of the invoice line.

11. Similarly review the project transaction that corresponds to the invoice line with the *INSTALL* inventory item whose amount has been multiplied by 1.25 to calculate the amount of the invoice line.

### **Forms Used**

In this lesson, you have used the following forms:

*Billing Rules* (PM207000)

*Sales Prices* (AR202000)

*Rate Tables* (PM206000)

*Projects* (PM301000)

*Pro Forma Invoices* (PM307000)

# Pro Forma Invoices

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Acumatica ERP provides draft (pro forma) invoice capabilities for project billing. A pro forma invoice, which you can view on the Pro Forma Invoices (PM307000) form, is isolated from the accounts receivable. You can review and modify the billable transactions and amounts of the pro forma invoice before you prepare the Accounts Receivable invoice that is based on this pro forma invoice. A pro forma invoice can be printed and sent to a customer as many times as is necessary until an agreement is reached.

Once all the necessary changes have been applied to the pro forma invoice, it can be approved and released. When you release the pro forma invoice, the system creates an Accounts Receivable invoice with all the information copied from the pro forma invoice. With this process, you minimize corrections in the Accounts Receivable module.

## Creating a Pro Forma Invoice

A pro forma invoice can be created only through the project billing process (and assigned a reference number only automatically). You cannot manually enter new pro forma invoices on the Pro Forma Invoices (PM307000) form. By default, the system creates a pro forma invoice when you bill a project because the **Create Pro Forma on Billing** check box is initially selected on the **Summary** tab of the Projects (PM301000) form. To disable the draft invoice workflow for a project, you can clear this check box—that is, to prevent the system from creating a pro forma invoice when you bill the project.

For a pro forma invoice created for a project, the system records to the following tabs of the Pro Forma Invoices form the lines to be billed:

- **Progress Billing:** The system creates these lines by using the *Progress Billing* steps of billing rules; the lines originate from the revenue budget of the project.
- **Time and Material** The system creates these lines by using the *Time and Material* steps of billing rules; the lines originate from the project transactions.

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

## Modifying a Pro Forma Invoice

On the Pro Forma Invoices (PM307000) form, you can edit a pro forma invoice when it is *On Hold*, including the following:

- You can delete a line of the pro forma invoice to bill it later in the full amount.
- You can modify the pro forma invoice to bill any lines on the **Progress Billing** and **Time and Material** tabs in a greater or smaller amount by changing the **Amount to Invoice** as desired. The **Amount to Invoice** is added to the Accounts Receivable invoice when the pro forma invoice is released.

On the **Time and Material** tab, if a manually edited **Amount to Invoice** is less than the **Billed Amount**, you can make a decision about the difference between the calculated **Billed Amount** and the corrected **Amount to Invoice** by selecting the needed option in the **Status** column of the invoice line. The difference can be postponed until the next invoice (*Hold Remainder*) or written off by this invoice (*Write off Remainder*). The whole amount of the pro forma invoice line can also be written off (*Write off*); the amount will no longer show up in future invoices.



For a postponed amount to be added to a pro forma invoice, the Accounts Receivable invoice that contains the line from which this postponed amount originates must be released.



- On the **Time and Material** tab, you can select a line and then click **View Transactions Details** on the table toolbar to drill down to the list of project transactions for which the **Billed Quantity** and **Billed Amount** have been calculated by the formula of the billing rule. These values are summed to obtain the **Billed Quantity** and **Billed Amount**, respectively, of the pro forma invoice line. You can remove particular transactions from this list, and they will appear in the next invoice.
- You can rearrange lines within the invoice by dragging them to the appropriate positions. If billing limit amounts are defined for the project on the Projects (PM301000) form, the system applies these limit amounts to the pro forma invoice lines as a running total, starting from the first line on the **Time and Material** tab of the Pro Forma Invoices form. For each line of the invoice, the system subtracts the **Amount to Invoice** from the **Max Available Amount** and uses the reduced amount as the available limit for the next line. Invoice lines for which the **Over Limit Amount** becomes nonzero exceed the limit. By rearranging the lines, you can make the system apply the limit amounts to the needed lines of the invoice.
- You can add to a pro forma invoice an adjustment line that does not originate from the revenue budget or project transactions. Such lines are also included in the limit application and can decrease or increase the limit total.

### Releasing a Pro Forma Invoice

The release of a pro forma invoice does not generate project transactions or General Ledger transactions directly. When you release the pro forma invoice, the system creates a corresponding Accounts Receivable invoice with all information copied from the pro forma invoice. You can release the pro forma invoices one by one on the Pro Forma Invoices (PM307000) form, or you can mass-process pro forma invoices to release them and produce Accounts Receivable invoices on the Process Pro Forma Invoices (PM506000) form.

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

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

If the **Detail Total** of a pro forma invoice is negative on the Pro Forma Invoices form (for example, if you have added a negative adjustment line in an amount greater than the total amount of billable lines), the system creates an Accounts Receivable credit memo when the pro forma invoice is released.

As a result of the release of the Accounts Receivable invoice, the General Ledger transactions are recorded, and the revenue budget of the corresponding project is changed as follows on **Revenue Budget** tab of the Projects form:

- The **Actual Quantity** of the corresponding revenue budget line is increased by the line quantity of the released Accounts Receivable invoice if *Task and Item* is the **Revenue Budget Level** of the project; otherwise, the **Actual Quantity** is zero.
- The **Actual Amount** of the corresponding revenue budget line is increased by the line amount of the released Accounts Receivable invoice.
- The **Draft Invoices Amount** of the corresponding revenue budget line is decreased by the line amount of the released Accounts Receivable invoice.

The document details of an unreleased Accounts Receivable document that originates from a pro forma invoice are displayed in read-only mode on the Invoices and Memos (AR301000) form. To make a correction to the Accounts Receivable document, you need to delete this document and start over from the pro forma invoice.

On the Invoices and Memos form, you can also navigate directly to the Pro Forma Invoices form by using the **View Pro Forma** menu command and view the pro forma invoice from which the current Accounts Receivable document originates. This menu command becomes available on the **Inquiries** menu if the invoice being viewed has originated from a pro forma invoice.

# Lesson 4: Correction of a Pro Forma Invoice

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In this lesson, you will learn about the ways you can adjust 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. The 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.

The following adjustments to the pro forma invoice have been agreed upon with the customer:

- The customer will pay \$2,000 of the cost of the juicer with the first invoice (this pro forma invoice) and the rest of the juicer's cost with the second invoice next month.
- The site review cost 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 the scope of Phase 1 of the project.

Acting as the project accountant, you will make the needed corrections to the pro forma invoice.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) 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. For the project, a pro forma invoice has been created.

On the Project Transactions (PM304000) form, the *PM00000001* batch of project transactions related to the project has been created and released.

## Process Overview

You make the 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 review the accounts receivable invoice created based on the pro forma invoice and release this invoice.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: 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, and on the **Cost Budget** tab, review the cost budget of the project.
2. On the **Invoices** tab, click the link in the **Pro Forma Reference Nbr.** column to open the pro forma invoice.
3. On the **Time and Material** tab of the Pro Forma Invoices (PM307000) form, which the system has opened in a pop-up window, adjust the invoice lines as follows (see the screenshot below):
  - a. In the line with the *PHASE1* project task and the *JUICER15* inventory item, enter 2,000.00 as the **Amount to Invoice**.  
When you enter an **Amount to Invoice** that is less than the **Billed Amount**, the system clears the **Status** of the line.
  - b. Select *Hold Remainder* as the **Status** of the line with the *PHASE1* project task and the *JUICER15* inventory item to bill the difference between the **Billed Amount** and the **Amount to Invoice** later.
  - c. 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.
  - d. In the line with the *PHASE2* project task and the *TRAINING* inventory item, enter 200.00 as the **Amount to Invoice**.
  - e. Select *Write Off Remainder* as the **Status** of the line with the *PHASE2* project task and the *TRAINING* inventory item 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:
  - **Project Task:** *PHASE1*
  - **Inventory UD:** *TRAINING*
  - **Description:** An additional training session within Phase 1
  - **Amount to Invoice:** 100.00

Pro Forma Invoices

NOTES ACTIVITIES FILES NOTIFICATIONS CUSTOMIZATION TOOLS

SAVE & CLOSE RELEASE ACTIONS REPORTS

Reference Nbr.: 000003 Project: TOMYUM4 - A juicer with the installation Progress Billing Total: 0.00  
 Status: On Hold Customer: TOMYUM - Thai Food Restaurant Time and Material Total: 2,700.00  
 Hold Tax Total: 0.00  
 \* Invoice Date: 1/17/2019 Invoice Total: 2,700.00  
 \* Post Period: 01-2019  
 Description: Invoice for TOMYUM4

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS ADDRESS DETAILS

UPLOAD UNBILLED TRANSACTIONS VIEW TRANSACTION DETAILS

* Status	Project Task	Inventory ID	Description	* Date	Billed Quantity	Billed Amount	Quantity to Invoice	UOM	Unit Price	Amount to Invoice
Hold Remainder	PHASE1	JUICER15	Commercial...	1/17/2019	1.00	2,500.00	1.00	PIECE	2,500.0000	2,000.00
Write Off	PHASE1	SITEREVIEW	Site review	1/17/2019	2.00	100.00	0.00	HOUR	50.0000	0.00
Bill	PHASE1	INSTALL	Installation ...	1/17/2019	4.00	400.00	4.00	HOUR	100.0000	400.00
Write Off Remainder	PHASE2	TRAINING	Training on ...	1/17/2019	8.00	400.00	8.00	HOUR	50.0000	200.00
Bill	PHASE1	TRAINING	An addition...	2/1/2019	0.00	0.00	0.00	HOUR	0.0000	100.00

**Figure: The adjustments to the pro forma invoice**

5. Save your changes to the pro forma invoice.
6. In the Summary area, clear the **Hold** check box, and on the form toolbar, 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 Details** tab, click the link in the **AR Ref. Nbr.** box to open the accounts receivable invoice that was created.
8. On the Invoices and Memos (AR301000) form, which the system opens in a pop-up window, notice that you cannot edit the document details.
9. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the accounts receivable invoice.
10. Close the window with the pop-up form.
11. On the Projects form, open the *TOMYUM4* project, and review the revenue budget on the **Revenue Budget** tab.

**Forms Used**

In this lesson, you have used the following forms:

- [Projects](#) (PM301000)
- [Pro Forma Invoices](#) (PM307000)
- [Invoices and Memos](#) (AR301000)

# Lesson 5: Project Budget Structure

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In this lesson, you will learn how detailed the level of your project budget can be and how you can manage these levels.

## Story

Suppose that the Thai Food Restaurant customer has ordered two juicers, along with the installation service. The project accountant has created the project. The project accountant needs to specify the project budget by using different levels of detail.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) form, the *Project Accounting* feature has been enabled to provide support for the project accounting functionality.

On the Projects (PM301000) form, the *TOMYUM5A*, *TOMYUM5B*, and *TOMYUM5C* projects have been created.

On the Project Transactions (PM304000) form, the *PM00000003* and *PM00000004* batches of project transactions have been created for the *TOMYUM5B* and *TOMYUM5C* projects, respectively.

## Process Overview

On the Projects form (PM301000) form, you enter the project budget. On the Project Transactions (PM304000) form, you can create a batch of project transactions that also affect the project budget.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Specifying the Revenue Budget for a Project

To specify the revenue budget of a project, do the following:

1. On the Projects (PM301000) form, open the *TOMYUM5A* project, and on the **Summary** tab, notice that the **Revenue Budget Level** of the project is *Task*.
2. On the **Revenue Budget** tab, add a row, and specify the following settings:
  - **Project Task:** *INSTALL*
  - **Account Group:** *REVENUE*
  - **Original Budgeted Amount:** *4,600.00*

You cannot add another line with the same project task and account group to the revenue budget.

3. Save your changes to the project.

4. While remaining on the Projects form, open the *TOMYUM5B* project, and on the **Summary** tab, notice that the **Revenue Budget Level** of the project is *Task and Item*.
5. On the **Revenue Budget** tab, specify the settings shown in the following table in the three revenue budget lines you add.

Project Task	Inventory ID	Account Group	Original Budgeted Quantity	Original Budgeted Amount
<i>INSTALL</i>	<i>JUICER10</i>	<i>REVENUE</i>	1.00	1,500.00
<i>INSTALL</i>	<i>JUICER15</i>	<i>REVENUE</i>	1.00	2,500.00
<i>INSTALL</i>	<i>INSTALL</i>	<i>REVENUE</i>	6.00	600.00

You cannot add another line with the same project task, inventory item, and account group to the revenue budget.

6. In the table selection area, select the **Group by Task** check box. In the table, review how the system groups budget lines.
7. Save your changes to the project.

### Step 3: Updating the Cost Budget of a Project

To update the cost budget of the project and view its detailed version, do the following:

1. On the Projects Preferences (PM101000) form, on the **General Settings** tab (**General Settings** section), notice that the **Cost Budget Update** setting is *Detailed*.
2. On the Projects (PM301000) form, open the *TOMYUM5B* project, and on the **Cost Budget** tab, make sure that the cost budget is empty.
3. On the Project Transactions (PM304000) form, open the *PM00000003 - Juicers for TOMYUM5B (Detailed update)* batch of project transactions.
4. Review the transactions. Pay attention to the project task, account group, and inventory item of the lines.
5. Release the batch.
6. On the Projects form, open the *TOMYUM5B* project, and on the **Cost Budget** tab, review the cost budget of the project.  
Notice that the system has added transactions to the cost budget as separate lines.
7. In the table selection area, select the **Group by Task** check box and review how the system groups budget lines.
8. On the Projects Preferences form, on the **General Settings** tab (**General Settings** section), select *Summary* in the **Cost Budget Update** box, and save your changes to the project accounting preferences.
9. On the Projects form, open the *TOMYUM5C* project, and on the **Cost Budget** tab, make sure that the cost budget is empty.
10. On the Project Transactions (PM304000) form, open the *PM00000004 - Juicers for TOMYUM5C (Summary update)* batch of project transactions.
11. Review the transactions, which are the same as those for the *TOMYUM5B* project, and release the batch.
12. On the Projects form, open the *TOMYUM5C* project, and on the **Cost Budget** tab, review the cost budget of the project.

Notice that the system has added transactions to the cost budget as a single line with the *N/A* inventory item.

### **Forms Used**

In this lesson, you have used the following forms:

*Projects* (PM301000)

*Project Transactions* (PM304000)

*Projects Preferences* (PM101000)



# Change Management

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Acumatica ERP provides change order functionality, which you can use to control changes to project's budgeted and committed values and control the profitability of every change initiated by a customer. A change order is a document for profitability analysis and an audit trail 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 separately from the original figures for analysis.

Change orders provide the following functionality:

- The ability to record changes to the project revenue budget, cost budgets, and commitments.
- The ability to review the list of change orders related to a project on the **Change Orders** tab of the Projects (PM301000) form.
- The ability to see on the Change Orders (PM306000) form the changes for each purchase order as well as the original and committed values.
- The ability to see on the **Change Orders** tab of the Purchase Orders (PO301000) form the list of change orders that affect the purchase order.
- The ability to see the profitability of every change of the project budget initiated by the customer.

The functionality of change orders is available only if the *Change Orders* feature is enabled on the Enable/Disable Features (CS100000) form.

## Projects with the Change Order Workflow

To enable the change order workflow for a project, which enables the creation of change orders, you should select the **Change Order Workflow** check box on the **Summary** tab of the Projects (PM301000) form and save changes to the project.

## Change Order Creation

A new change order can be created either directly on the Change Orders (PM308000) form or on the Projects (PM301000) form, if you click **Create Change Order** on the form toolbar or click **Create Change Order** on the table toolbar of the **Change Orders** tab.

In a change order with the *On Hold* status, you can enter the necessary amendments to the project budget and commitments. On the **Revenue Budget** and **Cost Budget** tabs of the Change Orders form, when you edit a change order line, you can see the original budgeted amount in the **Original Budgeted Amount** column; the released and draft change order amounts in the **Previously Approved CO Amount** and **Other Draft CO Amount** columns, respectively; and the revised budgeted amount in the **Revised Budgeted Amount** column. You can do any of the following on the Change Orders form:

- On the **Revenue Budget** and **Cost Budget** tabs:
  - Create a new budget line with a positive amount
  - Create a new budget line with a negative amount
  - Add an existing budget line
  - Make a deduction from an existing budget line



You can add an existing budget line to be modified to the change order in the **Select Budget Lines** dialog box if you click **Select Budget Lines** on the table toolbar.

- On the **Commitments** tab:
  - Create a new purchase order with a new line

- Add a new line to an existing purchase order
- Add to an existing purchase order line
- Make a deduction from an existing purchase order line



- You can add an existing commitment to be modified to the change order in the **Select Commitments** dialog box if you click **Select Commitments** on the table toolbar.
- The deduction from the amount and quantity of a purchase order line can be no greater than the **Received Qty.** and **Received Amount** of the line.

A change order document has the following reference numbers in the Summary area of the Change Orders form:

- **Reference Nbr.:** The number of the change order in the system. This number is assigned to each change order based on the *CHANGEORD* numbering sequence, which is selected on the Projects Preferences (PM101000) form.
- **Revenue Change Nbr.:** The number of the change order that can affect the revenue within the applicable project. Each project has its own numbering sequence of such change orders.
- **External Reference Nbr.:** The external reference number. This number, which is entered manually, can be the identifier required by the customer or the number from an external system integrated with Acumatica ERP.

A change order can also have a detailed description, which you can enter on the **Detailed Description** tab of the Change Orders form.

### Change Order Printing

You can print a change order with any status. For the printing of change orders, the system uses the form that is specified on the **Mailing Settings** tab of the Projects Preferences (PM101000) form. By default, this is the Change Order (PM643000) report. This report supports the printing of revenue budget lines, header-level and line-level notes, and the detailed description of a change order.

You can override the default printed form by defining a project-specific report on the **Mailing Settings** tab of the Projects (PM301000) form. For a project, you can specify the custom print form and email notification template that should be used for printing and emailing of change orders prepared for the project. On the **Billing Settings** tab of the Projects form, you can also specify the contact information of the customer to whom change orders prepared for the project should be sent.

### Change Order Release

When a change order is released, the balances and commitments of the corresponding project are updated as follows:

- If the project has a revenue budget line with the same project task, cost code or inventory item, and account group 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 of the Projects (PM301000) form:
  - **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** = **Completed (%)** \* **Revised Budgeted Amount** – **Actual Amount** – **Draft Invoices Amount**



As the result of the update, this amount can take rational values, including negative ones.

- If the project does not have a revenue budget line with the same project task, cost code or inventory item, and account group as a revenue budget line of the change order, the system creates a new revenue budget line for the project based on the revenue budget line of the change order.
- If the project has a cost budget line with the same project task, cost code or inventory item, and account group 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 of the Projects form:
  - **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 cost budget line with the same project task, cost code or inventory item, and account group as a cost budget line of the change order, the system creates a new cost budget line for the project based on the cost budget line of the change order.
- If a commitment line of the change order has the *Update* or *Reopen* status, the system updates the following values of the corresponding purchase order line on the **Document Details** tab of the Projects (PO301000) form based on the commitment line of the change order:
  - **Order Qty.** = Original **Order Qty.** of the purchase order line + **Quantity** of the commitment line of the change order
  - **Open Quantity** = **Order Qty.** - **Qty. on Receipts**
  - **Ext. Cost** = Original **Ext. Cost** of the purchase order line + **Amount** of the commitment line of the change order
  - **Open Amount** = **Ext. Cost** - **Received Amount**
  - **Requested Date** = **Order Date** of the commitment line of the change order
  - **Completed**, **Canceled**, and **Closed** check boxes are cleared
- If a commitment line of the change order has the *New Line* status, the system adds a new line with the following values to the **Document Details** tab of the Projects form for the corresponding purchase order based on the commitment line of the change order:
  - **Order Qty.** = **Quantity** of the commitment line of the change order
  - **Ext. Cost** = **Amount** of the commitment line of the change order
  - **Requested Date** = **Order Date** of the commitment line of the change order
- If any commitment lines of the change order have the *New Document* status, the system groups these lines by vendor and creates a new purchase order on Purchase Orders (PO301000) form for each vendor based on the commitment lines of the change order as follows:
  - The date of the created purchase order is the earliest **Order Date** of the commitment lines of the change order.
  - The **Requested Date** of each purchase order line is the **Order Date** of the commitment line of the change order.
  - The system generates the default description of the created purchase order by using the following formula: **Description** = 'Change Order #' + [PMChangeOrder.RefNbr].



A purchase order that originates from a change order cannot be edited or removed and can be only canceled, completed, or altered by yet another change order.

- For each purchase order line updated by a change order, the system updates the corresponding project commitment on the Commitments (PM306000) form. For each purchase order line created from a change order, the system creates a new project commitment. In these commitments, the values are updated as follows:
  - **Revised Committed Quantity = Order Qty.** of the purchase order line
  - **Revised Committed Amount = Ext. Cost** of the purchase order line
  - **Committed CO Quantity = Revised Committed Quantity – Original Committed Quantity**
  - **Committed CO Amount = Revised Committed Amount – Original Committed Amount**
  - **Committed Open Amount = Open Amount** of the purchase order line

If the project has a cost budget line with the same project task, cost code or inventory item, and account group as an updated or newly created commitment, the system updates the cost budget line of the project on the **Cost Budget** tab of the Projects form. Otherwise, the system creates a new cost budget line for the project based on the commitment.

### Change Order Classes

Change order classes, which you can create on the Change Order Classes (PM203000) form, make it possible to group change orders by their impact on projects and by additional attributes that classes can have. You can also segregate changes by class in reports to analyze, for example, which types of changes have the greatest impact on project profitability. For instance, by using a change order class, you can create an internal change order that does not affect the revenue budget of projects and is not assigned any reference number within a project. This class of change orders will not have the **Revenue Budget** tab on the Change Orders (PM308000) form.

You can specify a default change order class in the **Default Change Order Class** box on the **General Settings** tab of the Projects Preferences (PM101000) form. The default change order class is then assigned to each newly created document on the Change Orders form.

# Lesson 6: Change Orders to Budget

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In this lesson, you will learn how you can control changes to a project's budgeted values.

## Story

Suppose that the Thai Food Restaurant customer has ordered a juicer, along with installation and employee training on operating the juicer. The project accountant has created a project. Then the customer has decided to order one more juicer, along with the same services, within the same project. The project accountant updates the budgeted values of the project accordingly. You will perform the budget updates in the system, acting as the project accountant.

## Configuration Overview

For the purposes of this lesson, the following features have been enabled on the Enable/Disable Features (CS101000) form:

- *Project Accounting*, which provides support for the project accounting functionality
- *Change Orders*, which gives you the ability to control changes to the project's budgeted and committed values

On the Projects (PM301000) form, the *TOMYUM6* project has been created.

## Process Overview

You update budgeted values of the project directly on the Projects (PM301000) form. On the same form, you enable the change order workflow for the project and create a new change order. You modify and process the created change order on the Change Orders (PM308000) form.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Changing the Project Budget

To make the changes to the project budget, do the following:

1. On the Projects (PM301000) form, open the *TOMYUM6* project, and review the settings as follows:
  - On the **Summary** tab, notice the **Change Order Workflow** check box, which is cleared.
  - On the **Revenue Budget** tab, review the revenue budget of the project.
  - On the **Cost Budget** tab, review the cost budget of the project.
2. On the **Revenue Budget** tab, enter *8.00* as the **Revised Budgeted Quantity** of the line with the *PHASE1* task.

When you update the **Revised Budgeted Quantity**, the system automatically recalculates the **Revised Budgeted Amount** based on the **Unit Rate** of the line.

3. On the **Summary** tab, select the **Change Order Workflow** check box to enable the change order workflow for the project.
4. Save your changes to the project.
5. On the **Revenue Budget** tab, notice that the **Revised Budgeted Quantity** and **Revised Budgeted Amount** columns are unavailable for editing.
6. On the form toolbar, click **Create Change Order** to create a change order for the project. The system creates this change order and opens it on the Change Orders (PM308000) form.
7. In the Summary area of this form, enter *One more juicer and the respective services requested by the customer* as the **Description**.
8. On the **Revenue Budget** tab, add a line with the following settings:
  - **Project Task:** *PHASE2*
  - **Quantity:** 8.00

When you select the project task, the system automatically fills in the settings of the line based on the revenue budget line of the project with the same task, because the revenue budget level of the project is *Task*.

When you update the **Quantity**, the system automatically recalculates the **Amount** based on the **Unit Rate** of the line. In the line, the system also calculates the **Revised Budgeted Quantity** as the sum of the **Original Budgeted Quantity** and the **Quantity**, and it calculates the **Revised Budgeted Amount** as the sum of the **Original Budgeted Amount** and the **Amount**.

9. On the table toolbar of the **Cost Budget** tab, click **Select Budget Line**.
10. In the **Select Budget Line** dialog box, which the system has opened in a pop-up window, select the cost budget line by selecting the check box in the unlabeled column, and click **Add Lines & Close**.

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

11. For the added line, enter 1.00 as the **Quantity**.

When you update the **Quantity**, the system automatically recalculates the **Revised Budgeted Quantity** as the sum of the **Original Budgeted Quantity** and the **Quantity**, and it recalculates the **Revised Budgeted Amount** as the sum of the **Original Budgeted Amount** and the **Amount**.

Until you release the change order, these changes will not affect the project budget.

12. Save your changes to the change order.
13. On the form toolbar, click **Reports > Print Change Order** 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.

14. Go back to the change order, and in the Summary area, clear the **Hold** check box, and release the change order.
15. On the Projects form, open the *TOMYUM6* project, and review the revenue and cost budgets of the project (on the **Revenue Budget** and **Cost Budget** tabs, respectively) that have been updated by the change order you have just released.

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**. The **Budgeted CO Quantity** and **Budgeted CO Amount** are the quantity and amount provided by the change order.

16. On the **Change Orders** tab, where the system lists all the change orders related to the project, review the change order that you have created.

### **Forms Used**

In this lesson, you have used the following forms:

[Projects](#) (PM301000)

[Change Orders](#) (PM308000)

# Lesson 7: Change Orders to Commitments

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In this lesson, you will learn how you can control changes to project commitments.

## Story

Suppose that the Thai Food Restaurant customer has ordered two juicers, along with the installation and employee training on operating the juicer. The project accountant has created a project and two purchase orders related to the project with all the services that should be provided by the vendor of juicers. The first purchase order related to the first phase of the project has been partially billed and all the ordered services have been provided. The quantity of the ordered services differs from the quantity of provided services. Thus, the project accountant needs to update the purchase orders related to the project. You will perform the commitment updates in the system, acting as the project accountant.

## Configuration Overview

For the purposes of this lesson, the following features have been enabled on the Enable/Disable Features (CS101000) form:

- *Project Accounting*, which provides support for the project accounting functionality
- *Inventory*, which provides the ability to maintain stock items and to create and process purchasing documents that include stock items
- *Change Orders*, which gives you the ability to control changes to the project's budgeted and committed values

On the Projects (PM301000) form, the *TOMYUM7* project has been created.

On the Purchase Orders (PO301000), the *000018* and *000019* purchase orders related to the project have been created. The *000018* purchase order has been partially billed.

## Process Overview

You create purchase orders related to the project on the Purchase Orders (PO301000) form. You rebuild commitments for the project on the Validate Project Balances (PM504000) form. You review commitments created based on the purchase orders on the Commitments (PM306000) form. You also review committed values and the project budget affected by the commitments on the Projects (PM301000) form. On the same form, you create a change order to adjust the created commitments. You modify and process the created change order on the Change Orders (PM308000) form.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.
3. On the Projects Preferences (PM101000) form, on the **General Settings** tab (**General Settings** section), select the **Internal Cost Commitment Tracking** check box to enable the tracking of purchase orders as cost commitments, and save your changes to the project accounting preferences.



## Step 2: Creating Commitments for the Project

To create commitments for the project budget, do the following:

1. Review the purchase orders prepared for the project as follows:
  - a. On the Purchase Orders (PO301000) form, open the *000018* purchase order, and on the **Document Details** tab, review the purchase order lines. Pay attention to the project, which is *TOMYUM7*, and project task selected for each line.
  - b. On the **PO History** tab, notice that there is the accounts payable bill applied to the purchase order.
  - c. In the **Reference Nbr.** column, click the link to open the bill.
  - d. On the **Document Details** tab of the Bills and Adjustments (AP301000) form, which the system has opened in a pop-up window, review the bill lines.
  - e. Close the window with the pop-up form.
  - f. In the Summary area of the Purchase Orders form, clear the **Hold** check box, and save the purchase order with the *Open* status.
  - g. Open the *000019* purchase order, and on the **Document Details** tab, review the purchase order lines. Pay attention to the project and project task selected for each line.
  - h. In the Summary area, clear the **Hold** check box, and save the purchase order with the *Open* status.
2. On the Validate Project Balances (PM504000) form, in the line with the *TOMYUM7* project, select the check box in the unlabeled column.
3. In the Summary area, select the **Rebuild Commitments** check box to rebuild the commitments for the selected project, and on the form toolbar, click **Validate**.

The system creates the commitments for the *TOMYUM7* project based on the previously created purchase orders.



This step is not normally needed if you set up the system before starting operations. If you already have some purchase orders created in the system, and then decide to enable the tracking of cost commitments, you might need this step of running the validate project balances process to make the system rebuild the commitment records based on the already entered purchase orders.

4. In the Summary area of the Commitments (PM306000) form, select *TOMYUM7* as the **Project**, and review the commitment that was created.
5. On the Projects form, open the *TOMYUM7* project, and on the **Cost Budget** tab, review the committed values of the cost budget.
6. In the table selection area of the **Cost Budget** tab, select the **Group by Task** check box, and review the total committed values by task.
7. On the **Balances** tab, review the committed values by account group.
8. On the **Commitments** tab, review the list of purchase orders related to the project.
9. On the **Summary** tab, notice that the **Change Order Workflow** check box is selected.

When a project has the change order workflow enabled, and a related purchase order has at least one change order applied, the purchase order can be modified by either completion or cancellation of the purchase order or by applying another change order to the purchase order.

## Step 3: Changing the Project Commitments

To change the project commitments with a change order, do the following:

1. On the Projects (PM301000) form, open the *TOMYUM7* project.

2. On the form toolbar, click **Create Change Order**. The system creates a change order and opens it on the Change Orders (PM308000) form.
3. In the Summary area, enter `Adjustment to the purchase orders from Squeeze Inc.` as the **Description**.
4. On the **Commitments** tab, to make a positive adjustment to an existing line of the purchase order, do the following:

- a. On the table toolbar, click **Select Commitments**.
- b. In the **Select Commitments** dialog box, select the commitment with the *PHASE1* project task and the *INSTALL* inventory item by selecting the check box in the unlabeled column, 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 `1.00` as the **Quantity** column.

When you update the **Quantity**, the system automatically recalculates the **Amount** based on the **Unit Rate** of the line.

The system also calculates the **Potentially Revised Quantity** as the sum of the **Order Qty.** and **Quantity**, and **Potentially Revised Amount** as the sum of the **Line Amount** and **Amount**.

5. On the **Commitments** tab, to make a negative adjustment to an existing line of the purchase order, do the following:
  - a. On the table toolbar, click **Select Commitments**.
  - b. In the **Select Commitments** dialog box, select the commitment with the *PHASE1* project task and the *TRAINING* inventory item by selecting the check box in the unlabeled column, 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 `-1.00` as the **Quantity** column.
 

When you update the **Quantity**, the system automatically recalculates the **Amount**, **Potentially Revised Quantity**, and **Potentially Revised Amount**.
6. To add a new line to an existing purchase order, add a commitment line with the following settings (see the screenshot below):

- **Project Task:** *PHASE1*
- **Inventory ID:** *JUICER10*
- **Quantity:** `1.00`
- **Unit Cost:** `1,200.00`
- **PO Nbr.:** `000018`

Notice that the **Status** of the added line is *New Line*.

7. To add a new purchase order for the project, add a commitment line with the following settings:
  - **Project Task:** *PHASE2*
  - **Inventory ID:** *JUICER15*
  - **Quantity:** `1.00`
  - **Unit Cost:** `2,000.00`

- **Vendor:** *SQUEEZO*

Notice that the **Status** of the added line is *New Document*.

**8.** Save your changes to the change order.

Status	Project Task	Inventory ID	Description	Quantity	UOM	Unit Cost	Amount	Vendor	PO Nbr.	Currency	Order Qty.	Ext. Cost	Open Qty.	Open Amount	Amount in Project Currency	Potentially Revised Quantity	Potentially Revised Amount
Update	PHASE1	INSTALL	Installation ...	1.00	HOUR	80.00	80.00	SQUEEZO	000018	USD	2.00	160.00	1.00	80.0000	80.00	3.00	240.00
Update	PHASE1	TRAINING	Training on ...	-1.00	HOUR	40.00	-40.00	SQUEEZO	000018	USD	4.00	160.00	2.00	80.0000	-40.00	3.00	120.00
New Line	PHASE1	JUICER10	Pro series j...	1.00	PIECE	1,200.00	1,200.00	SQUEEZO	000018	USD			0.00	0.0000	1,200.00	1.00	1,200.00
New Document	PHASE2	JUICER15	Commercial...	1.00	PIECE	2,000.00	2,000.00	SQUEEZO		USD			0.00	0.0000	2,000.00	1.00	2,000.00

**Figure: Changes to project commitments**

**9.** In the Summary area, clear the **Hold** check box; release the change order.

**10.** Review the purchase order modified by the change order as follows:

- In the **PO Nbr.** column, click the *000018* number of the purchase order.  
The system opens the purchase order on the Purchase Orders (PO301000) form in a pop-up window.
- In the Summary area of the form, notice that you cannot select the **Hold** check box for the purchase order to be able to change the order because the related project has the change order workflow enabled and the purchase order has a related change order.
- On the **Document Details** tab, review the updated **Order Qty.** of the lines with the *INSTALL* and *TRAINING* inventory items and the added line with the *JUICER10* inventory item.
- On the **Change Orders** tab, review the change order related to the purchase order.
- Close the pop-up window.

**11.** Review the purchase order created by the change order as follows:

- In the **PO Nbr.** column, click the number of the purchase order in the line with the *New Document* status.  
The system opens the purchase order on the Purchase Orders form in a pop-up window.
- In the Summary area, review the **Description** of the created purchase order.
- On the **Document Details** tab, review the added line with the *JUICER15* inventory item.
- On the **Change Orders** tab, review the change order related to the purchase order.
- Close the pop-up window.

**12.** On the Projects form, open the *TOMYUM7* project, and review the changes as follows:

- On the **Cost Budget** tab, review the updated committed values of the cost budget.
- On the **Commitments** tab, review the list of purchase orders related to the project, including the new purchase order created based on the change order you have processed.
- On the **Change Orders** tab, review the change order created for the project.

## **Forms Used**

In this lesson, you have used the following forms:

*Projects Preferences* (PM101000)

*Purchase Orders* (PO301000)

*Bills and Adjustments* (AP301000)

*Validate Project Balances* (PM504000)

*Commitments* (PM306000)

*Projects* (PM301000)

*Change Orders* (PM308000)

# Labor Cost Rates

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In Acumatica ERP 2019 R1, you can define labor cost rates specific to different entities, including the employee, labor item, project, project task, and rate type. The labor cost rates feature provides the following advantages:

- Visibility and maintenance of all the labor cost rates on a single form.
- Simple time entry because the system retrieves the labor items and labor cost rates.
- Ability to select a labor item in a time card line.

## Creation of Labor Cost Rates

On the Labor Cost Rates (PM209900) form, you can view and edit the existing labor cost rates. Labor costs can be specified at particular detail levels—that is, for particular entities or groups of entities. You can create labor cost rates of the following types and detail levels:

- *Labor Item*: The labor item
- *Employee*: The employee and optionally the labor item
- *Project*: The project and optionally any of the following: the project task, the employee, and the labor item

For each labor cost rate, you specify the effective date. If there are multiple labor cost rates with the same settings, the system uses the rate with the actual effective date—that is, 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 later than the latest effective date of the existing labor cost rate.

When you specify the hourly rate for a line with a selected labor item, you specify the rate for the base unit of measure (UOM) of the labor item.

## Retrieval of Labor Cost Rates

When you create a time card on the Employee Time Card (EP305000) form, for each line, you select the employee, project, project task, labor item, and date.

For each time card line, among labor cost rates of the *Project*, *Employee*, and *Labor Item* rate types, the system selects the most specific existing labor cost rate that matches all the settings specified in the time card line. The following list shows the sets of settings of the labor cost rate, from the most specific to the least specific:

- The *Project* rate type, project, project task, employee, labor item, and effective date
- The *Project* rate type, project, project task, employee, and effective date
- The *Project* rate type, project, project task, labor item, and effective date
- The *Project* rate type, project, project task, and effective date
- The *Project* rate type, project, employee, labor item, and effective date
- The *Project* rate type, project, employee, and effective date
- The *Project* rate type, project, labor item, and effective date
- The *Project* rate type, project, and effective date
- The *Employee* rate type, employee, labor item, and effective date
- The *Employee* rate type, employee, and effective date

- The *Labor Item* rate type, labor item, and effective date

# Lesson 8 (Optional): Time Cards and Time Activities for Projects

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In this lesson, you will enter a time card and a time activity for work related to a project.

## Story

Suppose that the Thai Food Restaurant customer has ordered two training sessions for its employees on how to use juicers that were previously purchased. The project accountant has created a project. Todd Bloom has provided four hours of training as part of the first training session. Pam Brawner has provided two hours of go-live acceptance and training as part of the first training session and an hour of go-live acceptance and training as part of the second training session. All activities within the second training session should be approved by Pam Brawner. Acting as the project accountant, you need to configure labor cost rates for employees and log these hours to the project as activities.

## Configuration Overview

For the purposes of this lesson, the following features have been enabled on the Enable/Disable Features (CS101000) form:

- *Project Accounting*, which provides support for the project accounting functionality
- *Time Reporting on Activity* feature, which gives you the ability to track the time your employees spend on activities
- *Advanced Financials* feature, which provides the functionality of time cards

On the Projects (PM301000) form, the *TOMYUM8* project has been created.

## Process Overview

Before you work with time cards and activities to track work spent on projects and project tasks, on the Labor Cost Rates (PM209900) form, you define labor cost rates for employees (and optional inventory items). If approval of time activities is required, you configure the approver for a project task on the Projects (PM301000) form.

Time activities related to a project are entered on the **Activity History** tab of the Projects form. You approve time activities on the Approve Time Activities (EP507010) form and release them on the Release Time Activities (EP507020) form. For employees whose settings require the creation of time cards, you create and view time cards on the Employee Time Card (EP305000) form, where you can also release the time cards on the same form. On the Project Transactions (PM401000) form, you review the transactions created based on the released time activities.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Configuring Labor Cost Rates

You can configure labor cost rates specific to different factors, including the employee, labor item, project, project task, and rate type. To configure labor cost rates, do the following:

1. On the Labor Cost Rates (PM209900) form, click **Add Row** on the table toolbar, and specify the following settings to add a new labor cost rate for Todd Bloom:
  - **Labor Rate Type:** *Employee*
  - **Employee:** *EP00000002*
  - **Labor Item:** Cleared
  - **Rate:** 40.00
  - **Effective Date:** 1/1/2019
2. Again click **Add Row** on the table toolbar, and specify the following settings to add a labor cost rate for Pam Brawner with the following settings:
  - **Labor Rate Type:** *Employee*
  - **Employee:** *EP00000001*
  - **Labor Item:** *CONSULTPM*
  - **Rate:** 45.00
  - **Effective Date:** 1/1/2019
3. Save your changes to the labor cost rates.

## Step 3: Specifying an Approver for a Task and Entering Time Activities

To specify the approver for activities associated with a project task and to enter activities associated with the project, do the following:

1. On the Projects (PM301000) form, open the *TOMYUM8* project, and review the cost budget on the **Cost Budget** tab.
2. To specify Pam Brawner as the approver for time activities related to the *PHASE2* task, do the following:
  - a. On the **Tasks** tab, for the *PHASE2* task, select *EP00000001* in the **Approver** column.
  - b. Save your changes to the project.
3. To log the four hours that Todd Bloom has spent training the customer's staff as part of the *PHASE1* project task, on the **Activity History** tab, add an activity to the project as follows:
  - a. On the table toolbar, click **Add Activity > Add Work Item**.
  - b. On the Activity (CR306010) form, which the system opens in a pop-up window, specify the following settings:
    - **Summary:** A training on juicer usage
    - **Owner:** *EP00000002 - Todd Bloom*
    - **Project Task:** *PHASE1*
    - **Labor Item:** Cleared
    - **Time Spent:** *04:00*

When you enter hours in the **Time Spent** box, the system fills in the **Billable Time** because the **Billable** check box is automatically selected based on the settings of the selected earning type.



- c. On the form toolbar, click **Complete** to complete the activity.  
The system creates the activity with the *Work Item* type and the *Completed* status and closes the pop-up window with the Activity form.
4. To log the two hours that Pam Brawner has spent training the customer's staff as part of the *PHASE1* project task, add one more activity to the project as follows:
  - a. On the table toolbar, click **Add Activity > Add Work Item**.
  - b. On the Activity form, which the system opens in a pop-up window, specify the following settings:
    - **Summary:** Go-live acceptance and training
    - **Owner:** EP00000001 - Pam Brawner
    - **Project Task:** PHASE1
    - **Labor Item:** CONSLUTPM
    - **Time Spent:** 02:00
  - c. On the form toolbar, click **Complete** to complete the activity.  
The system creates the activity with the *Completed* status and closes the pop-up window with the Activity form.
5. To log the one hour that Pam Brawner has spent training the customer's staff as part of the *PHASE2* project task, add the third activity to the project as follows:
  - a. On the table toolbar, click **Add Activity > Add Work Item**.
  - b. On the Activity form, which the system opens in a pop-up window, specify the following settings:
    - **Summary:** Go-live acceptance and training
    - **Owner:** EP00000001 - Pam Brawner
    - **Project Task:** PHASE2
    - **Labor Item:** CONSLUTPM
    - **Time Spent:** 01:00
  - c. On the form toolbar, click **Complete** to complete the activity.  
The system creates the activity with the *Pending Approval* status (because the time activities related to the *PHASE2* task need to be approved by Pam Brawner) and closes the pop-up window with the Activity form.

#### Step 4: Approving and Releasing Time Activities

To approve (while acting as Pam Brawner, whose account you are signed in to) and release time activities, do the following:

1. On the Employees (EP203000) form, open the EP00000001 - Pam Brawner employee, and on the **General Info** tab, notice that the **Time Card Is Required** check box is selected, which means Pam's time activities can be released only with a time card.



This process is useful in a situation when Pam is required to submit to her manager for approval a weekly time card with a certain number of logged hours.

2. On the Time & Expenses Preferences (EP101000) form, review the settings in the **Time Reporting Settings** section. Notice that the **Posting Option** is *Post PM and GL Transactions*,

meaning that on release of time activities, the system generates project accounting and general ledger transactions.

3. On the Approve Time Activities (EP507010) form, notice that there are no time activities with the *PHASE1* task to approve.
4. On the form toolbar, click **Approve All** to approve the time activity for the *PHASE2* task, which is the only activity listed.
5. On the Release Time Activities (EP507020) form, in the Summary area, select *TOMYUM8* as the **Project**, and notice that none of Pam Brawner's time activities related to the *TOMYUM8* project are ready to be released.
6. In the table, for the line with the *Todd Bloom* employee, *TOMYUM8* project, and *PHASE1* project task, select the check box in the unlabeled column to select this time activity, and on the form toolbar, click **Process** to release the selected time activity.
7. Create a time card for Pam Brawner to be able to release her time activities as follows:
  - a. On the Employee Time Card (EP305000) form, create a new time card.  
The system automatically selects *Pam Brawner* as the **Employee** because you are signed in as Pam Brawner and populates the time card with the time activities you have entered for the employee.
  - b. On the **Summary** tab, review the added activities. Pay attention to the status of activities and notice that the activity within the *PHASE2* project task is approved whereas the activity within the *PHASE1* project task does not require approval.
  - c. Save your changes to the time card.
  - d. On the form toolbar, click **Actions > Submit** to submit the time card.  
The status of the time card is changed to *Approved*.
  - e. On the form toolbar, click **Actions > Release** to release the time card.  
The status of the time card is changed to *Released*.
8. On the Project Transactions (PM401000) form, in the Summary area, select *TOMYUM8* as the **Project**, and review project transactions that have been created based on the released time activities. Notice that the unit rate for transactions has been defined based on the labor cost rates you have configured.
9. On the Projects (PM301000) form, open the *TOMYUM8* project, and on the **Activity History** tab, review the activities you have released. The status of the activities is now *Released*, as shown in the following screenshot.

Projects NOTES FILES NOTIFICATIONS TOOLS

← SAVE & CLOSE ↶ ↷ K < > >| RUN PROJECT BILLING CREATE CHANGE ORDER

ACTIONS ▾ INQUIRIES ▾ REPORTS ▾ CURRENCY RATES

\* Project ID: TOMYUM8 Status: Active ▾

Customer: TOMYUM - Thai Food Restaurant  Hold

Template: Assets: 0.00

\* Description: Trainings for employees Liabilities: 0.00

Income: 0.00

Expenses: 295.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES **ACTIVITY HISTORY**

ADD TASK ADD EVENT ADD EMAIL ADD ACTIVITY ▾ All Activities ▾

Type	Summary	Status	Start Date	Billable	Time Spent	Overtime	Billable Time	Billable Overtime	Owner
Work Item	<a href="#">Go-live acceptance and training</a>	Released	2/1/2019	<input checked="" type="checkbox"/>	01:00	00:00	01:00	00:00	<a href="#">Pam Brawner</a>
Work Item	<a href="#">Go-live acceptance and training</a>	Released	2/1/2019	<input checked="" type="checkbox"/>	02:00	00:00	02:00	00:00	<a href="#">Pam Brawner</a>
Work Item	<a href="#">A training on juicer usage</a>	Released	2/1/2019	<input checked="" type="checkbox"/>	04:00	00:00	04:00	00:00	<a href="#">Todd Bloom</a>

**Figure: The project related activities**

**10.** On the **Cost Budget** tab, review how the released activities have affected the cost budget of the project.

**Forms Used**

In this lesson, you have used the following forms:

[Labor Cost Rates](#) (PM209900)

[Projects](#) (PM301000)

[Time & Expenses Preferences](#) (EP101000)

[Employees](#) (EP203000)

[Approve Time Activities](#) (EP507010)

[Release Time Activities](#) (EP507020)

[Employee Time Card](#) (EP305000)

[Project Transactions](#) (PM401000)

# Lesson 9 (Optional): Configuring Project Invoices

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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.

## Story

Suppose that the Thai Food Restaurant customer has ordered two juicers, along with the following services: site review, installation, and employee training on operating the juicers. The project accountant has created the project for these items and services. The juicers have been delivered and installed, and a consultant has provided the training.

Acting as the project accountant, you need to bill the customer.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) form, the *Project Accounting* feature has been enabled to provide the support of project accounting functionality.

On the Projects (PM301000) form, the *TOMYUM9* project has been created.

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 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. You then bill the project on the Projects (PM301000) form. Finally, you review the created pro forma invoice on the Pro Forma Invoices (PM307000) form.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: 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.

3. On the **Tasks** tab, in the line with the *PHASE2* task, select the *TM* as the **Billing Rule**. 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 Project 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.
7. Delete the pro forma invoice, so you can bill this project again when you change the configuration of project billing.

### Step 3: Billing Project Tasks Separately

To bill one of the project tasks 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 in a pop-up window.
  - 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 Project Billing**.  
The system creates 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. Open and review each created pro forma invoice as follows:
  - a. On the **Invoices** tab, click the link in the **Pro Forma Reference Nbr.** column to open the pro forma invoice.
  - b. On the **Time and Material** tab of the Pro Forma Invoices (PM307000) form, which the system opens in a pop-up window, review the lines of the invoice.  
One invoice has lines related to the *PHASE1* and *PHASE2* tasks, whereas the other invoice has lines related to only the *PHASE3* task.
  - c. Close the pop-up window with the form.
7. After you review both pro forma invoices in the previous step, delete the invoices to be able to bill the project again when you change the configuration of project invoices.

### Step 4: Grouping Invoices by Steps of Billing Rules

To bill project transactions that are processed by particular steps of billing rules with a separate invoice, do the following:

1. On the Billing Rules (PM207000) form, open the *TM* billing rule.
2. In the left pane, enter *MATERIAL* as the **Invoice Group** of the *10 - Material cost plus markup* step.  
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 *COMBINED* billing rule.
5. In the left pane, enter *MATERIAL* as the **Invoice Group** of the *20 - Material cost plus markup* step.  
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 **Tasks** tab, make sure that the billing rule of the *PHASE1* and *PHASE3* tasks is *COMBINED* and the billing rule of the *PHASE2* task is *TM*.
9. On the form toolbar, click **Run Project Billing**.  
The system creates three pro forma invoices. 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.
10. Open and review each created pro forma invoice as follows:
  - a. On the **Invoices** tab, click the link in the **Pro Forma Reference Nbr.** column to open the pro forma invoice.
  - b. On the **Time and Material** tab of the Pro Forma Invoices (PM307000) form, which the system opens in a pop-up window, review the lines of the invoice.
  - c. Close the pop-up window with the form.

### Forms Used

In this lesson, you have used the following forms:

[Projects](#) (PM301000)

[Billing Rules](#) (PM207000)

[Pro Forma Invoices](#) (PM307000)

# Lesson 10 (Optional): Modifying Billing Rules

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In this lesson, you will learn how you can configure billing rules to modify invoices created during the project billing. You will change the description of the invoices to be created. You will also add a time and material step to a billing rule to be able to process project transactions related to an account group.

## Story

Suppose that the Thai Food Restaurant customer has ordered a juicer, along with the following services: site review, installation, and training of employees on operating the juicer. The project accountant has created a project. The juicer has been delivered and installed, and a consultant has provided the training. Acting as the project accountant, you need to bill the customer.

## Configuration Overview

For the purposes of this lesson, on the Enable/Disable Features (CS101000) form, the *Project Accounting* feature has been enabled to provide support for the project accounting functionality.

On the Projects (PM301000) form, the *TOMYUM10* project has been created.

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

## Process Overview

To review how the current billing rules work and determine what modifications need to be made, you first bill the project on the Projects (PM301000) form. You review the created pro forma invoice on the Pro Forma Invoices (PM307000) form, which is opened.

If you notice that a billing rule is not correct, you delete the pro forma invoice. You then review and modify the billing rule on the Billing Rules (PM207000) form. You bill the project again on the Projects form. Finally, you review the pro forma invoice created with the modified billing rule on the Pro Forma Invoices form (which is again opened when you run project billing).



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: Modifying a Billing Rule

To change a billing rule, which affects the creation of invoices with this billing rule, do the following:

1. On the Projects (PM301000) form, open the *TOMYUM10* project, and review the following settings:
  - On the **Tasks** tab, notice that the *TIMEMATERIAL* billing rule is selected for each project task.

- On the **Cost Budget** tab, review the cost budget of the project. Notice the line with the *PHASE3* task and *TRAVEL* account group, which tracks travel expenses.

Also notice that *LABOR* is the account group of the line with the *PHASE3* task and *TRAINING* inventory item.

- To review an invoice created with the *TIMEMATERIAL* billing rule, do the following.
  - On the form toolbar, click **Run Project Billing**.  
The system creates a pro forma invoice and opens it on the Pro Forma Invoices (PM307000) form.
  - In the Summary area, notice the invoice description, which is *Invoice for TOMYUM10*.
  - On the **Time and Material** tab, notice that there is no line with the *TRAVEL* inventory item because the line has not been added to the invoice during the billing.  
Also notice that there are three lines with the *PHASE3* task and *TRAINING* inventory item.
  - Delete the pro forma invoice so you can bill the project again after you change the billing rule.
- On the Billing Rules (PM207000) form, open the *TIMEMATERIAL* billing rule.
- To modify the description of invoices created with the billing rule, do the following:
  - In the left pane, click the *10 - Material cost plus markup* step.
  - In the right pane, enter the following formula in the **Invoice Description Formula** box:  
`= 'Invoice for '+[PMProject.ContractCD]+' ('+[PMProject.Description]+') '`
  - Specify the same invoice description formula for the *20 - Labor from non-stock price* and *30 - Re-invoice subcontractors* steps of the billing rule, because the system uses the invoice description formula of the first billing step that satisfies the grouping conditions of project transactions to be billed.
 

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Although the system uses the invoice description formula of the first step that satisfies the grouping conditions among all the steps of the billing rule, you change the invoice description formula of all the steps, because you cannot be sure that the first step will be used in each case of billing.
- To add a billing step to bill travel expenses with a fixed margin coefficient of 1.4, do the following:
  - In the left pane, add a new step with the following settings:
    - **Active:** Selected
    - **Step ID:** 40
    - **Description:** *Travel cost plus markup*
  - 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:**  $=[\text{PMTran.BillableQty}]$   
The system uses the quantity of the project transaction as the quantity of an invoice line.
- **Line Amount Formula:**  $=[\text{PMTran.Amount}] * 1.4$   
The system uses the amount of the project transaction multiplied by 1.4 as the amount of the invoice line.
- **Line Description Formula:**  $=[\text{PMTran.Description}]$   
The system uses the description of the project transaction as the description of the invoice line.
- **Use Sales Account from:** *Inventory Item*

Billing Rules NOTES FILES HELP

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\* Billing Rule ID:   Active  
 Description:

	Step ID	Description	Invoice Group
<input checked="" type="checkbox"/>	10	Material cost plus markup	
<input checked="" type="checkbox"/>	20	Labor from non-stock price	
<input checked="" type="checkbox"/>	30	Re-invoice subcontractors	
<input checked="" type="checkbox"/>	40	Travel cost plus markup	

Billing Type:

**TRANSACTION SELECTION CRITERIA**

Account Group:

Rate Type:  If @Rate is not defined:

**INVOICE SETTINGS**

Invoice Description Formula:

Line Quantity Formula:

Line Amount Formula:

Line Description Formula:

\* Use Sales Account from:  Sales Account:

**BILLING OPTIONS**

Copy Notes and Files  Create Lines with Zero Amount and Quantity

Include Non-Billable Transactions

**AGGREGATE TRANSACTIONS BY**

Date  Employee  Vendor  Inventory ID

**Figure: The new step of the billing rule**

- To group project transactions with the *LABOR* account group in a single invoice line by inventory item, do the following:
  - In the left pane, click the *20 - Labor from non-stock price* step.
  - In the right pane, in the **Aggregate Transactions By** section, select the **Inventory ID** check box.
- Save your changes to the billing rule.
- On the Projects form, open the *TOMYUM10* project, and to review how the changes you have made to the billing rule affect invoices, do the following.
  - On the form toolbar, click **Run Project Billing**.  
The system creates a pro forma invoice and opens it on the Pro Forma Invoices form.
  - In the Summary area, notice the invoice description.
  - On the **Time and Material** tab, notice that a line with the *TRAVEL* inventory item has appeared in the invoice.
  - Also notice that there is only one line with the *PHASE3* task and *TRAINING* inventory item. Click this line, and on the table toolbar, click **View Transaction Details** to review the list of project transactions corresponding to the invoice line that were grouped during the billing according to the aggregation setting of the billing rule you have configured.

## **Forms Used**

In this lesson, you have used the following forms:

*Projects* (PM301000)

*Billing Rules* (PM207000)

*Pro Forma Invoices* (PM307000)

# Lesson 11 (Optional): Credit Memo Workflow

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In this lesson, 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 (by using the pro forma workflow) for the project.

## Story

Suppose that the Thai Food Restaurant customer recently ordered training on how to use a juicer it had previously bought from SweetLife. The project accountant created a project for this training, the consultant provided the training, and the project accountant billed the customer.

The project accountant has realized that the consultant provided fewer hours of training than the planned number, so the customer was overcharged. 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

For the purposes of this lesson, on the Enable/Disable Features (CS101000) 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.

For the project, a pro forma invoice and the corresponding accounts receivable invoice have been created and released on the Pro Forma Invoices (PM307000) and Invoices and Memos (AR301000) forms, respectively.

## Process Overview

When a project has been overcharged during the billing, on the Projects (PM301000) form, you update the pending invoice amount of the project with a negative amount and initiate project billing. On the Pro Forma Invoices (PM307000) form, which is brought up, you review the pro forma invoice and release it. You 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.



To open any form, you can navigate to it or search for it (by its name or by its form ID without periods).

## Step 1: Preparing the System

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

1. Launch the Acumatica ERP website and sign in as Pam Brawner using the *brawner* login 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 *1/30/2019*. If a different date is displayed, click the Business Date menu button, and select *1/30/2019* from the calendar.

## Step 2: 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, and do the following:
  - On the **Invoices** tab, notice that a pro forma invoice with the *Closed* status that has been created for the project (indicating that it was released) has the corresponding accounts receivable invoice with the *Open* status.
  - On the **Balances** tab, review the **Actual Amount** of the project.

2. On the **Revenue Budget** tab, specify -100.00 as the **Pending Invoice Amount** of the revenue budget line.
3. Save your changes to the project.
4. On the form toolbar, click **Run Project Billing**.

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

5. In the Summary area of the form, notice that the **Invoice Total** is negative and equals the amount you have specified for the revenue budget line of the project: -100.00.
6. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the pro forma invoice.

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

7. On the **Financial Details** tab, click the link in the **AR Ref. Nbr.** box to open the credit memo that has been created for the pro forma invoice.
8. In the Summary area of the Invoice and Memos (AR301000) form, which the system has opened in a pop-up window, clear the **Hold** check box, and on the form toolbar, click **Release** to release the credit memo.



In the next step, which is beyond the scope of this lesson, an accounts receivable clerk would apply the created credit memo to the original invoice that has been corrected.

9. Close the pop-up window with the form.
10. On the Projects form, open the *TOMYUM11* project, and on the **Balances** tab, review the **Actual Amount**, which has been updated as a result of the billing.
11. On the **Invoices** tab, notice that the credit memo and the corresponding pro forma invoice have appeared in the table, as shown in the screenshot below.

Projects NOTES FILES NOTIFICATIONS TOOLS

← SAVE & CLOSE + K < > >> RUN PROJECT BILLING CREATE CHANGE ORDER ACTIONS INQUIRIES REPORTS

* Project ID: TOMYUM11		Status: Active	Assets: 0.00
Customer: TOMYUM - Thai Food Restaurant		<input type="checkbox"/> Hold	Liabilities: 0.00
Template:			Income: 300.00
* Description: A training for employees			Expenses: 0.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS **INVOICES** CHANGE ORDERS ACTIVITY HISTORY EMPLOYEES EQUIPMENT

Pro Forma Date	Pro Forma Reference Nbr.	Description	Status	Invoice Total	Currency	AR Doc. Type	AR Reference Nbr.	AR Doc. Date	AR Doc. Description	AR Doc. Orig. Amount	Open AR Balance	Currency	AR Doc. Status	Original Document
1/28/2019	000004	Invoice for TOMYUM11	Closed	400.00	USD	Invoice	000075	1/28/2019	Invoice for TOMYUM11	400.00	400.00	USD	Open	
2/1/2019	000015	Invoice for TOMYUM11	Closed	-100.00	USD	Credit Memo	000078	2/1/2019	Invoice for TOMYUM11	100.00	100.00	USD	Open	

**Figure: The credit memo created for the project**

**Forms Used**

In this lesson, you have used the following forms:

- [Projects](#) (PM301000)
- [Pro Forma Invoices](#) (PM307000)
- [Invoices and Memos](#) (AR301000)