

Construction Edition

V300 Construction Edition

Training Guide

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How To Use This Course

This training course provides a set of lessons that illustrate the processes of construction project management in a midsize company. The course should be completed on an instance of Acumatica ERP 2019 R2 Construction Edition with a training data set preloaded; this data set provides the pre-configured settings and entities you will need as you complete the course.

Each lesson in this guide provides a story describing a particular user scenario and an overview of the relevant functionality. The lesson also 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 Construction Edition.

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

Follow these steps to complete the course:

1. Prepare an Acumatica ERP 2019 R2 instance with a tenant, as described in the *How to Create a Tenant with the U100 Dataset* section below.
2. You complete all the lessons of the guide.
3. Take the assessment test at Partner University.
4. Complete course survey at Partner University to finish the course and get the Partner University certificate of course completion.

What Are the Documentation Resources?

The complete Acumatica ERP documentation is available on <https://help.acumatica.com/> and is included in the Acumatica ERP instance. While viewing any form used in the course, you can click the **Help** button on the top pane to bring up a form-specific help menu; you can use the links on this menu to quickly access form-related concepts and procedures and to open a reference topic with detailed descriptions of the form elements.

How to Create a Tenant with the U100 Dataset

To add to an existing Acumatica ERP instance the tenant with the U100 dataset, which is required for the completion of this course, perform the following instructions:

1. Go to <https://portal.acumatica.com/construction-edition/acumatica-construction-edition-download/>.
2. In the **Software Downloads** section, download the *Construction Features* and *Construction Reporting* customization packages for your version of Acumatica ERP.
3. In the **Construction Edition Training Materials** section, download the *U100_for_Construction.zip* snapshot for your version of Acumatica ERP.
4. Open the Customization Projects (SM204505) form, click **Import**.

5. In the **Open Package** dialog box, select the *ConstructionFeatures* customization package for the Construction Edition, and click **Upload**.
6. Similarly, upload the *ConstructionReporting* customization package for the Construction Edition.
7. Select the Unlabeled check box for both packages.
8. On the form toolbar, click **Publish**.
9. In the **Compilation** window, when the validation is complete, click **Publish**.
10. Close the window when the publishing is complete.
11. On the Enable/Disable Features (CS100000) form, enable the *Construction* and *Construction Project Management* features of the *Project Management* group of features.
12. Open the Tenants (SM203520) form, and click Add New Record on the form toolbar.
13. In the **Login Name** box, type a name to be used for the tenant.
14. On the form toolbar, click **Save**.
15. On the **Snapshots** tab, click **Import Snapshot**.
16. In the **Upload Snapshot Package** dialog box, select the **U100_for_Construction.zip**, which you have downloaded, and click **Upload**. The system uploads the snapshot to the **Snapshots** tab of the **Tenants** form.
17. On the form toolbar, click **Restore Snapshot**.
18. If the **Warning** dialog box appears, click **Yes**.
19. In the **Restore Snapshot** dialog box, make sure that the correct snapshot package is being uploaded, and click **OK**.

Licensing Info

For the educational purposes of this course, you will 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; each particular feature may be a subject to additional licensing; please consult the Acumatica ERP sales policy for details.

Lesson 1: Overview of Projects in Acumatica ERP 2019 R2

This is a brief overview of the Projects functionality in Acumatica ERP Construction Edition 2019 R2. Detailed information and hands-on exercises on the basic project accounting functionality are provided in the P100 Project Accounting training course.

Learning Objectives

In this lesson, you will do the following:

- Review the main settings of a project
- Review the project structure
- Review the budget record buckets

System Preparation

Launch the Acumatica ERP website, and sign in as a project manager by using the *owen* login and *123* password.

Project Settings

Review the main settings of a project and the project structure; do the following:

1. On the Projects (PM301000) form, select the *ITALIAN* project.
2. Notice that the project's status is *Active*.

With this status, transactions and documents can be recorded on this project.

3. On the **Tasks** tab, notice that all the project tasks have the *Active* status. With this status, transactions and documents can be recorded on those tasks.
4. Review the task type specified in the **Type** column.

A project task with the *Sub Job/Schedule of Values* task type can be selected in the budgets, documents, and transactions that are associated with either cost or revenue aspects of the project.

5. Review the billing settings of the project.
 - Notice that a *billing rule* that determines how progress billing amounts and/or project transactions are billed for the project is specified *at the project task level* providing a very high level of flexibility of project billing configuration. The **Billing Rule** setting on the **Summary** tab of the Projects form determines only the default value for project tasks.

The screenshot shows the Acumatica Projects form. At the top, there's a summary section with fields for Project ID (ITALIAN), Customer (ITALIAN01 - The Italian Company), Status (Active), Assets (0.00), Liabilities (0.00), Income (200,896.25), and Expenses (202,717.00). Below this is a tabs section with 'TASKS' selected. Under the 'TASKS' tab, there's a table listing 16 tasks. The columns include Task ID, Type, Description, Rate Table, Allocation Rule, Billing Rule, Status, Completed (%), Start Date, End Date, Approver, Billing Option, and Tax Category. Most tasks have a 'Billing Rule' of 'TM' and a 'Status' of 'Active'. The tasks are numbered 01 through 16 and have various descriptions like 'GENERAL REQUIREMENTS', 'SITEWORK', 'CONCRETE', etc.

- The project is invoiced to the **ITALIAN01** customer that is specified in the Summary area of the Projects form.
- On the **Summary** tab, **Billing Period** is set to *Month*, which means that **Next Billing Date** is auto-incremented by a month after every run of the project billing process.

A billing period can be specified for a new project and cannot be changed afterwards.

With the *On Demand* billing period, **Next Billing Date** is not auto-incremented, and you can edit the value at any time.

- With the **Create Pro Forma on Billing** check box selected, the project billing process creates a pro forma invoice instead of directly creating an AR invoice and skipping the pro forma document. A pro forma invoice can be created only by the project billing process.

The screenshot shows the Acumatica Projects form (PM301000) with the following details:

- Project ID:** ITALIAN
- Status:** Active
- Customer:** ITALIAN01 - The Italian Company
- Revenue Budget Level:** Task and Cost Code
- Cost Budget Level:** Task and Cost Code
- Start Date:** 2/1/2019
- End Date:** (dropdown menu)
- Project Manager:** EP00000015 - Bill Owen
- Site Address:** 2510 Market Street, SF
- Last Revenue Change:** 0002
- Currency Rate Type:** (dropdown menu)
- Allow the addition of Account Groups not associated with the Project Cost Budget when creating ...** (checkbox checked)
- Change Order Workflow** (checkbox checked)
- Restrict Employees** (checkbox unchecked)
- Restrict Equipment** (checkbox unchecked)
- Track Production Data** (checkbox unchecked)
- Certified Job** (checkbox unchecked)
- Billing Currency:** USD
- Billing Period:** Month
- Next Billing Date:** 5/1/2019
- Last Billing Date:** 11/30/2019
- Terms:** 30D - 30 Days
- Allocation Rule:** Run Allocation on Release of Project Transactions
- Billing Rule:** CONTM - Construction Time and mate
- Branch:** HEADOFFICE - SweetLife Head Office
- Rate Table:** STANDARD - Standard Rate Table
- Create Pro Forma on Billing** (checkbox checked)
- Use T&M Revenue Budget Limits** (checkbox unchecked)
- Automatically Release AR Documents** (checkbox unchecked)
- BILL-TO:** Company Name: The Italian Company, Attention: , Phone 1: 415-965-5546, Email: Dustin.Lindquist@italianco.com
- BILL-TO ADDRESS:** Address Line 1: 2510 Market Street, City: San Francisco, Country: US - United States of America, State: CA - CALIFORNIA, Postal Code: 87556
- RETAINAGE:** Retainage Mode: Standard, Contract Total: 2,186,984.80, Completed (%): 9.19, Total Retained Amount: 0.00, Retainage (%): 0.00, Include CO (checkbox checked), Stepped (checkbox unchecked)
- VISIBILITY SETTINGS:** GL (checkbox checked), AP (checkbox checked), AR (checkbox checked), SO (checkbox checked), PO (checkbox checked), IN (checkbox checked), CA (checkbox checked), CRM (checkbox checked), Time Entries (checkbox checked), Expenses (checkbox checked)
- QUOTE:** Quote Ref. Nbr.: (dropdown menu)

Note that a project can be created in any of the following ways:

- From scratch on the Projects (PM301000) form.
- Through a project template, which can populate all the default settings of the project, project tasks, and budgets.

On the Project Templates (PM208000) form, review the *CONTM* project template, which was used for the *ITALIAN* project. Review the **Tasks** and **Revenue Budget** tabs.

- From a project quote on the Project Quotes (PM304500) form, which can populate project tasks and budgets.

If a project is created from a project quote, the hyperlink to the project quote is displayed in the **Quote** section on the **Summary** tab of the Projects form. When a project is created from a project quote, the default settings of the project are populated from the project template specified in the project quote. Because the project is created from a quote and not from a template, the template reference is empty in the project, which helps users avoid confusion.

6. Review the task on the Common Tasks (PM208030) form.

A common task is a template task that you use if you don't want to copy such a task to each project that you create from a project template but want to be able to add it to certain projects when necessary.

A common task can be added to any project at any time.

Project Budgets, Commitments, and Actuals

Project balances are tracked in a number of buckets:

1. On the Projects (PM301000) form, select the **ITALIAN** project.
2. On the **Cost Budget** tab, select the **Group by Task** check box.
3. Move the **Potential CO Amount** column by dragging it and dropping after **Revised Budgeted Amount** columns.

Review the following buckets:

- **Budgeted:** The planned costs (and revenues, if seen on the **Revenue Budget** tab) of the project. Original budgeted values are entered manually on the **Cost Budget** and **Revenue Budget** tabs of the project, or on the Project Budget (PM309000) form. Revised budgeted values can also be entered manually if change orders are not used.
- **Potential:** The total amount and total quantity of change requests that are not yet included in any change order. These totals are calculated automatically.
- **Committed:** The total amounts and total quantities of commitments (subcontracts and purchase orders) with a breakdown by stage of the process (such as open or invoiced). These totals are calculated automatically.
- **Actual:** The total amounts and total quantities of project transactions (PMTran) released. These totals are calculated automatically.

The screenshot shows the Acumatica Projects screen with the Cost Budget tab selected. The 'Group by Task' checkbox is checked. The table below displays the following columns: Description, UOM, Original Budgeted Amount, Budgeted CO Amount, Revised Budgeted Amount, Potential CO Amount, Original Committed Amount, Committed CO Amount, Revised Committed Amount, Committed Invoiced Amount, Committed Open Amount, Actual Amount, Actual + Open Committed Amount, Variance Amount, Performance (%), and Unit Price. The table includes rows for General Requirements, Concrete, Masonry, Wood, Plastics, Composites, Thermal and Moisture Protection, Openings, Finishes, Specialties, Equipment, Mechanical, Electrical, and a Total row.

Description	UOM	Original Budgeted Amount	Budgeted CO Amount	Revised Budgeted Amount	Potential CO Amount	Original Committed Amount	Committed CO Amount	Revised Committed Amount	Committed Invoiced Amount	Committed Open Amount	Actual Amount	Actual + Open Committed Amount	Variance Amount	Performance (%)	Unit Price
		GENERAL REQUIREMENTS		150,551.00	1,000.00	151,551.00	0.00	0.00	0.00	0.00	0.00	9,200.00	9,200.00	142,351.00	6.07
CONCRETE		113,990.00	380.00	114,370.00	0.00	106,517.00	380.00	106,897.00	106,517.00	380.00	106,517.00	106,897.00	7,473.00	93.13	
MASONRY		71,250.00	0.00	71,250.00	0.00	59,755.00	0.00	59,755.00	45,000.00	14,755.00	45,000.00	59,755.00	11,495.00	63.16	
WOOD, PLASTICS, COMPOSITES		121,025.00	0.00	121,025.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	121,025.00	0.00	
THERMAL AND MOISTURE PROTECTION		128,195.00	0.00	128,195.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	128,195.00	0.00	
OPENINGS		73,200.00	1,890.00	75,090.00	1,890.00	0.00	1,890.00	1,890.00	0.00	1,890.00	0.00	1,890.00	73,200.00	0.00	
FINISHES		416,725.00	0.00	416,725.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	416,725.00	0.00	
SPECIALTIES		23,010.00	0.00	23,010.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23,010.00	0.00	
EQUIPMENT		108,000.00	0.00	108,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108,000.00	0.00	
MECHANICAL		344,850.00	0.00	344,850.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	344,850.00	0.00	
ELECTRICAL		135,000.00	0.00	135,000.00	0.00	47,043.00	0.00	47,043.00	42,000.00	5,043.00	42,000.00	47,043.00	87,957.00	31.11	
Total:		1,685,796.00	3,270.00	1,689,066.00	1,890.00	213,315.00	2,270.00	215,585.00	193,517.00	22,068.00	202,717.00	224,785.00	1,464,281.00	12.00	

BUDGETED

ACTUAL
(TRANSACTIONS)

4. On the **Summary** tab of the Projects form, review the **Revenue Budget Level** setting, which is set to *Task and Cost Code*.

This setting defines the level of detail for the budget structure on the respective tab. The selected level of detail, *Task and Cost Code*, indicates that the budget figures and the auto-calculated values are determined for the *ITALIAN* project by project task, cost code, and account group (an account group should be always present). Columns with these settings are available for reviewing and editing on the **Revenue Budget** tab.

5. Note that each record on the **Revenue Budget** tab has a unique combination of values in the **Schedule of Values**, **Cost Code**, and **Account Group** columns (a so-called "project key"). When a revenue project transaction is released, if there is a budget record with the project task, cost code, and account group that match the transaction, the actual quantity and actual amount get updated in that budget record. If there is no matching budget record, the system creates a budget line with zero budgets and with actuals from the transaction, depending on the **Revenue Budget Update** setting on the Project Preferences (PM101000) form.

	Schedule of Values	Cost Code	* Account Group	Description	Original Budgeted Quantity	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Revised Budgeted Quantity	Budgeted CO Amount	Budgeted CO Quantity	Draft Invoices Amount	Actual Quan	Actual Amou	Completed (%)
>	01	01-300	REVENUE	Permit	0.00	LS	0.0000	20,281.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-311	REVENUE	Operations- Project Mana...	0.00	LS	0.0000	19,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,500.00
0	01	01-313	REVENUE	Operations- Superintendent	0.00	LS	0.0000	50,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-314	REVENUE	Operations- Crew Leader	0.00	LS	0.0000	26,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-330	REVENUE	Design Fees	0.00	LS	0.0000	48,750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-505	REVENUE	Mobilization	0.00	LS	0.0000	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-510	REVENUE	Telephone	0.00	LS	0.0000	1,235.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-600	REVENUE	Insurance	0.00	LS	0.0000	9,750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	01	01-900	REVENUE	Clean up	0.00	LS	0.0000	13,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	02	02-000	REVENUE	SITWORK	0.00	LS	0.0000	0.00	0.00	0.00	2,494.07	0.00	2,494.07	0.00	0.00	0.00
0	03	03-000	REVENUE	CONCRETE	0.00	LS	0.0000	0.00	0.00	10.00	468.16	10.00	468.16	0.00	0.00	0.00
0	03	03-100	REVENUE	Concrete- Forming	0.00	LS	0.0000	5,460.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,973.75
0	03	03-200	REVENUE	Concrete- Reinforcing	0.00	LS	0.0000	27,625.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,952.50
0	03	03-300	REVENUE	Concrete- CIP Slab	0.00	LS	0.0000	103,350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96,817.5
0	03	03-350	REVENUE	Concrete- Finishes	0.00	LS	0.0000	11,752.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,402.5
0	04	04-000	REVENUE	MASONRY	0.00	LS	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	04	04-220	REVENUE	Masonry- Block	0.00	LS	0.0000	73,125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43,750.00
0	04	04-700	REVENUE	Masonry- Composite Wall	0.00	LS	0.0000	19,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,500.00
0	05	05-000	RFVFMIF	MFTAIS	0.00	LS	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6. Review the **Revenue Budget Update** setting on the **General Settings** tab of the Project Preferences (PM101000) form.

- Detailed:** The budget record is created with information from the project transaction at the budget level of detail. For the revenue budget of the *ITALIAN* project, this would be project task, cost code, and account group of the project transaction.
- Summary:** The budget record is created with information from the project transaction grouped by project task and account group, against the default cost code. This mode is useful if only certain articles are budgeted at the very detail level, but there could be many transactions processed with different cost codes and items and all those miscellaneous transactions are budgeted in a single line of a project.

Projects Preferences ☆

GENERAL SETTINGS MAILING SETTINGS

NUMBERING SEQUENCE	
* Transaction Numbering Sequence:	PMTRAN - PM Transaction Numbering
* Batch Numbering Sequence:	BATCH - GL Batch
* Pro Forma Numbering Sequence:	PROFORMA - PM Pro Forma Invoice Number
* Change Order Numbering Sequence:	CHANGEORD - PM Change Order Numbering
* Change Request Numbering Sequence:	CHANGERST - PM Change Request Number
* Quote Numbering Sequence:	PMQUOTE - Quotes in Project
GENERAL SETTINGS	
* Non-Project Code:	X
* Empty Item Code:	<N/A>
* Empty Item UOM:	EA
Default Change Order Class:	DEFAULT - Default Change Order Class
Default Quote Template:	
Project Approval Map:	
Pending Project Approval Notification:	
Pro Forma Approval Map:	Pro Forma Invoice Approval
Pending Pro Forma Approval Notification:	Pro Forma Invoice Approval Notification
Change Request Approval Map:	CR Approval
Pending Change Request Approval Notification:	
Change Order Approval Map:	
Pending Change Order Approval Notification:	
Quote Approval Map:	
Quote Pending Approval Notification:	CRMQuote Pending Approval Notification
* Billing Cut-off Date:	Include Trans. created on billing date
Validate T&M Revenue Budget Limits:	Validate
Revenue Budget Update:	Detailed
Cost Budget Update:	Detailed

The logic that is described above for actuals also applies to updates of the following buckets in project budget records in the following cases:

- **Committed:** A new commitment gets opened.
- **Change order (CO) buckets in budgets and commitments:** A change order gets released.
- **Potential:** A change request is created.

The structure of cost budget is determined independently from the revenue budget structure. Similar rules apply to the cost budget structure of a project. Thus, there is the **Cost Budget Level** setting of a project on the **Summary** tab of the Projects (PM301000) form, and there is the respective **Cost Budget Update** setting (*Summary* or *Detailed*) on the **General Settings** tab of the Project Preferences (PM101000) form that determines the level of detail for the budget record that gets created if there is no matching record for a cost project transaction being released.

Note the following:

- The most possible detail level of revenue budget and/or cost budget is *Task, Item and Cost Code*, which is available if the *Construction* feature is enabled on the Enable/Disable Features (CS100000) form.
- There is no option for the budget update logic for an account group that has the *Asset* or *Liability* type. Budget records against such account groups are always updated in summary mode: if there is no matching record, the system creates a budget record with the project task and account group of the transaction, commitment line, change order, or change request, but always with the default cost code and the *N/A* inventory item.

Original and Revised Values of a Project

As a project goes, changes to the budgets and commitments of the project can be tracked by means of change orders.

Do the following:

1. On the Projects (PM301000) form, select the *ITALIAN* project.
2. On the **Summary** tab, notice that the **Change Order Workflow** check box, which is available only if the **Internal Cost Commitment Tracking** check box is selected on the **General Settings** tab of the Project Preferences (PM101000) form, is selected for a project. This means that the revised (that is, current) values of budgets and commitments of the project can be modified only through the use of change orders.
 - If **Change Order Workflow** is selected:
 - On the **Revenue Budget** tab:
 - **Revised Budgeted Amount** (read-only) = Original Budgeted Amount + Budgeted CO Amount
 - **Revised Budgeted Quantity** (read-only) = Original Budgeted Quantity + Budgeted CO Quantity
 - On the **Cost Budget** tab:
 - **Revised Budgeted Amount** (read-only) = Original Budgeted Amount + Budgeted CO Amount
 - **Revised Budgeted Quantity** (read-only) = Original Budgeted Quantity + Budgeted CO Quantity
 - **Revised Committed Amount** = Original Committed Amount + Committed CO Amount
 - **Revised Committed Quantity** = Original Committed Quantity + Committed CO Quantity

The screenshot shows the Acumatica Project Management interface. At the top, there's a header bar with buttons for 'SAVE & CLOSE', 'RUN PROJECT BILLING', 'CREATE CHANGE REQUEST', 'CREATE CHANGE ORDER', 'ACTIONS', 'INQUIRIES', and 'REPORTS'. Below the header, the 'Projects' screen is displayed. The 'Project ID' is set to 'ITALIAN', 'Status' is 'Active', and 'Assets' and 'Liabilities' are both '0.00'. The 'Income' is listed as '200,896.25' and 'Expenses' as '202,717.00'. The 'Cost Budget' tab is currently selected. A grid of budget items is shown, with columns for Original Budgeted Quantity, UOM, Unit Rate, Original Budgeted Amount, Potential CO Quantity, Potential CO Amount, Budgeted CO Quantity, Budgeted CO Amount, Revised Budgeted Quantity, Revised Budgeted Amount, Original Committed Quantity, Original Committed Amount, Committed CO Quantity, Committed CO Amount, Revised Committed Quantity, and Revised Committed Amount. Many cells in the grid have red boxes drawn around them, particularly in the 'Original Budgeted Amount', 'Revised Budgeted Amount', 'Original Committed Amount', and 'Revised Committed Amount' columns.

- If the **Change Order Workflow** check box is cleared
 - On the **Revenue Budget** tab, the **Revised Budgeted Amount** and **Revised Budgeted Quantity** values can be modified directly.
 - On the **Cost Budget** tab:
 - The **Revised Budgeted Amount** and **Revised Budgeted Quantity** values can be modified directly.
 - Commitment changes are not tracked. The **Revised Committed Amount** and **Revised Committed Quantity** values are non-editable and always equal to the original ones. Users can modify open commitments on the respective data entry forms, such as Subcontracts (SC301000) and Purchase Orders (PO301000), at any time directly by changing values in the lines of those documents.

For an example of this setup, review the *TOMYUM4* project.

Lesson 2: Projects Integration with General Ledger

This is a brief overview of the Projects functionality in Acumatica ERP Construction Edition 2019 R2. Detailed information and hands-on exercises on the basic project accounting functionality are provided in the P100 Project Accounting training course.

Learning Objectives

- Review how a project's actual balances are calculated
- Review how Projects are integrated with General Ledger
- Review how an account group is identified if a project transaction is created from a GL transaction
- Review how Projects are integrated with other modules of the system

System Preparation

Sign in to the system by using the *owen* login and *123* password.

Project Transactions

Integration of Projects with General Ledger works in both directions—that is, a project transaction can produce GL transactions and a GL transaction can produce a project transaction.

Actuals in a project budget record are calculated based on project transactions:

- **Actual Amount** is the sum of project transactions' **Amount** values.
- **Actual Quantity** is the sum of project transactions' **Quantity** values.

Process project transactions as described below:

1. On the Projects (PM301000) form, select the *HMBAKERY2* project.

On the **Cost Budget** tab, notice that the line with the *PHASE1* project task (sub job), *INSTALL* inventory item, and *SUBCON* account group has zero **Actual Amount** and **Actual Quantity**.

2. On the Project Transactions (PM304000) form, click **Add New Record** and do the following:
 - a. In the **Description** box, type *Installation work*.
 - b. On the table toolbar of the **Document Details** tab, click **Load Records from File**.
 - c. In the **File Upload** dialog box, which appears, specify the path to the *ProjectTransactions_HMBAKERY2_PM.xlsx* file, which is provided with the training

materials. Click **Upload**. In the wizard, which opens, leave all the default settings and map the columns as the system suggests.

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

Note that this transaction has empty **Debit Account** and **Credit Account** and no GL transaction has been created.

The screenshot shows the Project Transactions form with the following details:

Branch	Project	Sub Job/Schedule of Values	Cost Code	Account Group	Inventory ID	Description	Quantity	UOM	Billable	Billable Quantity	Unit Rate	Amount	Debit Account	Credit Account	* Date	* Fin. Period	Employee
HEADOFFICE	HMBAKERY2	PHASE1	00-000	SUBCON	INSTALL	Installation of equipment at ...	2.00	HOUR	<input checked="" type="checkbox"/>	2.00	80.000	160.00			12/29/2019	12-2019	

- On the **Cost Budget** tab of the Projects form, for the *INSTALL* inventory item, review the updated **Actual Quantity** and **Actual Amount** values.
- On the Project Transactions form, enter and release the transaction uploaded from the *ProjectTransactions_HMBAKERY2_PM_to_GL.xlsx* file, which is provided with the training materials, as described in Instruction 2.

The screenshot shows the Project Transactions form with the following details:

Branch	Project	Sub Job/Schedule of Values	Cost Code	Account Group	Inventory ID	Description	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account	Credit Account	* Date	* Fin. Period	Employee	
HEADOFFICE	HMBAKERY2	PHASE1	00-000	SUBCON	JUICERO5	Installation of equipment at the customers' ...	PIECE	2.00	<input checked="" type="checkbox"/>	2.00	80.000	160.00	54200		23015	12/20/2019	12-2019	

Because a different inventory item is used for that transaction, the system updates a different project budget record.

- Open the *HMBAKERY2* project on the Projects form and review the **Cost Budget** tab.

The system has added a new budget record at the detail level of the cost budget of the project (which is *Task and Item*) with the specific inventory item ID specified instead of *N/A* in accordance with the *Detailed* cost budget update mode specified on the Project Preferences form.

Projects

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

* Project ID:	HMBAKERY2	* Status:	Active	Assets:	0.00						
Customer:	HMBAKERY - HM's Bakery & Cafe	Hold		Liabilities:	0.00						
Template:				Income:	0.00						
* Description:	Juicers with the installation			Expenses:	320.00						
SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES CHANGE ORDERS CHANGE REQUESTS UNION LOCALS ACTIVITY HISTOR											
Project Task: Group by Task											
⌂ + × VIEW COMMITMENT DETAILS VIEW TRANSACTIONS ⌂ ⌂ ⌂											
Sub Job	Inventory ID	Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Actual Quantity	Actual Amount
PHASE1	JUICER15	MATERIAL	Commercial juicer with a produc...	1.00	PIECE	2,000.0000	2,200.00	1.00	2,200.00	0.00	0.00
PHASE1	INSTALL	SUBCON	Installation of equipment at the ...	4.00	HOUR	80.0000	320.00	4.00	320.00	2.00	160.00
PHASE1	JUICER05	SUBCON	Juicer with a production rate of ...	0.00	PIECE	0.0000	0.00	0.00	0.00	2.00	160.00
PHASE2	JUICER15	MATERIAL	Commercial juicer with a produc...	1.00	PIECE	2,000.0000	2,200.00	1.00	2,200.00	0.00	0.00
PHASE2	INSTALL	SUBCON	Installation of equipment at the ...	4.00	HOUR	80.0000	320.00	4.00	320.00	0.00	0.00

6. Select the **JUICER05** cost budget record and click **View Transactions** on the table toolbar.

The second project transaction has **Debit Account** and **Credit Account** specified, and the GL transaction was created on release of the project transaction. Note that for this course, the *Subaccounts* feature is disabled on the Enable/Disable Features (CS100000) form.

Open the created GL transactions on the Journal Transactions (GL301000) form by using the hyperlink in the **Batch Nbr.** column.

Projects

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

* Project ID:	HMBAKERY2	Project Transactions	NOTES FILES NOTIFICATIONS CUSTOMIZATION TOOLS														
Customer:	HMBAKERY - HM's Bakery & Cafe	Project Transactions															
Template:			CUSTOMIZATION TOOLS														
* Description:	Juicers with the installation																
SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES																	
Project Task: Group by Task																	
⌂ + × VIEW COMMITMENT DETAILS VIEW TRANSACTIONS ⌂ ⌂ ⌂																	
Sub Job	Inventory ID	Account Group	Description	Cost Code	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount (Reversed)	Amount (Normal)	Debit Account Group	Debit Account	Inventory ID	Credit Account Group	Credit Account	Batch Nbr.
PHASE1	JUICER15	MATERIAL	Commercial juicer with a produc...	00-000	HOUR	2.00	<input checked="" type="checkbox"/>	2.00	80.0000	160.00	160.00	SUBCON	INSTALL				
PHASE1	INSTALL	SUBCON	Installation of equipment at the ...	00-000	HOUR	2.00	<input checked="" type="checkbox"/>	2.00	80.0000	160.00	160.00	SUBCON	JUICER05	23015	GL000001		
PHASE2	JUICER15	MATERIAL	Juicer with a production rate of ...	00-000	PIECE	2.00	<input checked="" type="checkbox"/>	2.00	80.0000	160.00	160.00	SUBCON	INSTALL				
PHASE2	INSTALL	SUBCON	Installation of equipment at the ...	00-000	PIECE	2.00	<input checked="" type="checkbox"/>	2.00	80.0000	160.00	160.00	SUBCON	JUICER05	23015	GL000001		

The debit entry is posted to the general ledger with the project key.

The screenshot shows the 'Journal Transactions' form with the following details:

- Module:** FM
- Branch:** HEADOFFICE - SweetLife Head Office ai
- Ledger:** ACTUAL - Actual Ledger
- Type:** Normal
- Orig. Batch Number:** GL000021
- Status:** Posted
- Debit Total:** 160.00
- Credit Total:** 160.00
- Transaction Date:** 12/20/2019
- Post Period:** 12-2019
- Description:** Installation works with GL update

The table below lists the transaction details:

Branch	Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Transaction Date	Quantity	UOM	Debit Amount	Credit Amount	Transaction
HEADOFFICE	54200	Project Subcontract Expense	HMBAKERY2	PHASE1	00-000		12/20/2019	2.00	PIECE	160.00	0.00	Installation
HEADOFFICE	23015	Accrued Expenses	X		00-000		12/20/2019	2.00	PIECE	0.00	160.00	Installation

Note that **Actual Quantity** is updated in a project budget record if all of the following conditions are true:

- The project transaction has a non-empty UOM.
- In the project budget record that matches the transaction, a UOM is specified.
- The project transaction's UOM is convertible to the budget record's UOM by the global list that is defined on the Units of Measure (CS203100) form.

Otherwise, **Actual Quantity** is not updated in any budget record. A similar requirement for UOM conversion applies to a quantity update in the other buckets of a budget record, such as **Committed**, **Budgeted CO**, **Committed CO**, and **Potential**.

General Ledger Transactions

Do the following:

1. On the Journal Transactions (GL301000) form, click **Add New Record** and do the following:
 - a. In the **Description** box, type *Installation work*.
 - b. On the table toolbar, click **Load Records from File**.
 - c. In the **File Upload** dialog box, which appears, specify the path to the *JournalTransactions_HMBAKERY2_GL_to_PM.xlsx* file, which is provided with the training materials. Click **Upload**. In the wizard, which opens, leave all the default settings and map the columns as the system suggests.
 - d. Clear the **Hold** check box.
 - e. On the form toolbar, click **Release**.

The screenshot shows the 'Journal Transactions' form in a software application. At the top, there are fields for 'Module: GL', 'Branch: HEADOFFICE - SweetLife Head Office', 'Type: Normal', and 'Status: Balanced'. Below these are dropdowns for 'Transaction Date: 12/20/2019', 'Post Period: 12-2019', and a 'Description: Installation works'. The main table lists two transactions:

Branch	Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Quantity/UOM	Debit Amount	Credit Amount	Transaction Description	Non Billable
HEADOFFICE	54200	Project Subcontract Expense	HIMBAKERY2	PHASE1	00-000		3.00 HOUR	240.00	0.00	Installation works	<input type="checkbox"/>
HEADOFFICE	23015	Accrued Expenses	X		00-000		0.00	0.00	240.00	Installation works	<input type="checkbox"/>

To create a corresponding project transaction, the system identifies the account group by the GL account that is specified in the journal entry with the project, project task, and cost code.

2. On the Chart of Accounts (GL202500) form, find the 54200 account.

A GL account can be mapped to only one account group at a time, thus the 54200 - *Project Subcontract Expense* identifies the *SUBCON* account group.

The screenshot shows the 'Chart of Accounts' form. In the search bar at the top right, the text 'expen' is entered. The table lists various accounts, and the account '54200 COGS' is highlighted. In the 'Account Group' column, it is listed under 'SUBCON'.

Account	Account Class	Type	Active	Description	Control Account Module	Allow Manual Entry	Post Option	Cash Account	Account Group	Secured
23015	OTHCURLAB	Liability	<input checked="" type="checkbox"/>	Accrued Expenses		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
54100	COGS	Expense	<input checked="" type="checkbox"/>	Project Labor Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	LABOR	<input type="checkbox"/>
54200	COGS	Expense	<input checked="" type="checkbox"/>	Project Subcontract Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	SUBCON	<input type="checkbox"/>
54300	COGS	Expense	<input checked="" type="checkbox"/>	Project Other Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
54400	COGS	Expense	<input checked="" type="checkbox"/>	Project Travel Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	TRAVEL	<input type="checkbox"/>
54500	COGS	Expense	<input checked="" type="checkbox"/>	Project Material Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	MATERIAL	<input type="checkbox"/>
60000	EXOTHER	Expense	<input checked="" type="checkbox"/>	Purchase Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
61000	EXADVERT	Expense	<input checked="" type="checkbox"/>	Advertising Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	OTHEREXP	<input type="checkbox"/>
61500	EXOTHER	Expense	<input checked="" type="checkbox"/>	Freight Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>	OTHEREXP	<input type="checkbox"/>
62400	EXOTHER	Expense	<input checked="" type="checkbox"/>	Office Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
62900	EXOFFICE	Expense	<input checked="" type="checkbox"/>	Rent or Lease Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
64000	EXDEPR	Expense	<input checked="" type="checkbox"/>	Depreciation Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
81000	EXOTHER	Expense	<input checked="" type="checkbox"/>	Other Expense		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>

Note the following:

- Any type of GL account can be used in an account group that has the *Income* or *Expense* type.
 - Budgets of account groups that have the *Asset* or *Liability* type can be maintained on the Project Budget (PM309000) form.
3. Open the Project Transactions (PM304000) form and find the last project transaction (with the *GL* module). That project transaction has the reference to the batch of GL transactions from which it has been created.

No **Inventory ID** was specified in the GL transaction, so the project transaction has been created with the *N/A* inventory item.

The screenshot shows the Project Transactions screen with the following details:

- Module:** GL
- Ref. Number:** PM00000058
- Status:** Released
- Description:** Installation works
- Total Quantity:** 3.00
- Total Billable Quantity:** 3.00
- Total Amount:** 240.00

The Document Details tab is selected, showing a table with the following data:

Branch	Project	Sub Job/Schedule of Values	Cost Code	Account Group	Inventory ID	Description	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account
HEADOFFICE	HMBAKERY2	PHASE1	00-000	SUBCON	<N/A>	Installation works	HOUR	3.00	<input checked="" type="checkbox"/>	3.00	0.0000	240.00	54200

Financial Documents

Financial documents, such as AP bills and AR invoices, do not create project transactions directly. They produce GL transactions, and from each line that has a project, project task, and GL account mapped to an account group, the system creates project transactions.

- On the Bills and Adjustments (AP301000) form, enter an AP bill with the following settings:
 - Vendor:** ALLFRUITS
 - Description:** Installation works
 - On the **Document Details** tab, add a line with the following settings:
 - Account Group/Item (Inventory ID):** INSTALL
 - Quantity:** 2.00
 - Unit Cost:** 80.00 (default)
 - Account:** 54200 - Project Subcontract Expense (default)
 - Project:** HMBAKERY2
 - Sub Job:** PHASE1
 - Cost Code:** 00-000
- Clear the **Hold** check box and release the AP bill.

Bills and Adjustments

Type: Bill	Vendor: ALLFRUITS - All Fruits Mall	Detail Total: 160.00
Reference Nbr: 000072	Terms: 30D - 30 Days	Discount Total: 0.00
Status: Open	* Due Date: 1/19/2020	VAT Taxable Total: 0.00
<input type="checkbox"/> Hold	* Cash Discount: 1/19/2020	VAT Exempt Total: 0.00
Date: 12/20/2019	<input type="checkbox"/> Pay by Line	Tax Total: 0.00
Post Period: 12-2019	<input type="checkbox"/> Joint Payees	With Tax: 0.00
Vendor Ref:		Balance: 160.00
Description: Installation works		Amount: 160.00
		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPROVAL DETAILS APPLICATIONS COMPLIANCE

VIEW SCHEDULE ADD PO RECEIPT ADD PO RECEIPT LINE ADD PO ADD PO LINE ADD SUBCONTRACTS ADD SUBCONTRACT LINE ADD LC LINK LINE H X

Branch	Project	Sub Job	Cost Code	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	Account	Description
HEADOFFICE	HMBAKERY2	PHASE1	00-000	INSTALL	Installation of equipm...	2.00	HOUR	80.0000	160.00	0.00	160.00	0.00	54200	Project Subcontract Expense

3. On the **Financial Details** tab, click the hyperlink in the **Batch Nbr.** box to open the batch of the GL transactions created from the bill.

Review the transactions.

Journal Transactions - Google Chrome

Journal Transactions

Module: AP	Branch: HEADOFFICE - SweetLife Head Office ai	Type: Normal
Batch Number: AP000091	Ledger: ACTUAL - Actual Ledger	Org. Batch Number:
Status: Posted	<input type="checkbox"/> Auto Reversing	Debit Total: 160.00
<input type="checkbox"/> Hold	<input type="checkbox"/> Reversing Entry	Credit Total: 160.00
Transaction D... 12/20/2019		
Post Period: 12-2019		
Description: Installation works		

VIEW SOURCE DOCUMENT RECLASSIFICATION HISTORY H X

Branch	Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Transaction Date	Quantity	UOM	Debit Amount	Credit Amount	Transaction Description	Non Billable
HEADOFFICE	20000	Accounts Payable	X	PHASE1	00-000	000072	12/20/2019	0.00		0.00	160.00	Installation works	<input checked="" type="checkbox"/>
HEADOFFICE	54200	Project Subcontract Expense	HMBAKERY2	PHASE1	00-000	000072	12/20/2019	2.00	HOUR	160.00	0.00	Installation of equipment at the...	<input type="checkbox"/>

4. On the Project Transactions (PM304000) form, review the project transaction that the system has created from the GL transaction with the *HMBAKERY2* project, *PHASE1* project task, and the *54200* GL account that is mapped to the *SUBCON* account group. This project transaction has updated the project's actual balances.

Project Transactions

Module: AP Total Quantity: 2.00
Ref. Number: PM0000000000 Total Billable Quantity: 2.00
Status: Released Total Amount: 160.00
Description: Installation works

DOCUMENT DETAILS COMPLIANCE

Branch Project Sub Job/Schedule of Values Cost Code Account Group Inventory ID Description UOM Quantity Billable Billable Quantity Unit Rate Amount Debit Account Batch Nbr.

Branch	Project	Sub Job/Schedule of Values	Cost Code	Account Group	Inventory ID	Description	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account	Batch Nbr.
HEADOFFICE	HMBAKERY2	PHASE1	00-000	SUBCON	INSTALL	Installation of equipment at the customers' ...	HOUR	2.00	<input checked="" type="checkbox"/>	2.00	0.0000	160.00	54200	AP000091

Lesson 3: AR Invoices with Retainage

Learning Objectives

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

- Process invoices with retainage held in case of progress billing
- Process invoices with retainage held in case of time and material billing
- Release retainage from invoices
- Apply payments to invoices with retainage

Additionally, you will learn about:

- Importing of open AR invoices
- Configuring retained taxes
- Functionality restrictions in invoices with AR balance and retainage at the line level

Story

Suppose that the SweetLife company builds a hotel for The Equity Group Investors. A project accountant bills the customer for the works that are going to be performed. In a project invoice, the accountant specifies that the customer retains 5% of the amount of each progress billing line, according to the contract signed with the customer. After a part of the work is done, the project accountant creates an invoice for the customer to release a part of the retained amount. Acting as the project accountant, you need to enter and process invoices and payments for those invoices in the system.

Also, the project accountant bills the customer for some extra time spent on the project, which wasn't a part of the original contract, with the agreement of 5% retainage that can be held on such invoices. Acting as the project accountant, you need to create a new project task, enter the project transaction that represents the extra work, and create an invoice for that work with the retained amount.

System Preparation

Sign in to the system as a project manager by using the *owen* login and *123* password.

Performing Progress Billing with Retainage

To verify the needed settings, do the following:

1. On the Enable/Disable Features (CS100000) form, make sure that the *Payment Application by Line* feature is enabled.
2. On the Customers (AR303000) form, for the *EQUGRP* customer, make sure the **Pay by Line** check box is selected on the **General Info** tab. This setting will be copied by

default to the AR invoices for this customer, and the open AR and unreleased retainage balances will be tracked at the line level for these invoices.

To perform progress billing with retainage, do the following:

1. Open the Projects (PM301000) form.
2. In the **Project ID** box, select **HOTEL3**.
3. On the **Summary** tab, review the following retainage settings for the **HOTEL3** project (shown on the screenshot below):
 - **Retainage Mode:** *Standard* (retainage % is defined at the revenue budget level, there is no cap)
 - **Retainage (%):** 5.00

The screenshot shows the 'Projects' form with the 'Summary' tab selected. The 'Retainage' section is highlighted with a red border. It contains the following information:

- Retainage Mode:** Standard
- Retainage (%):** 5.00

4. On the **Revenue Budget** tab, review the retainage percent that applies to each line, as shown in the following screenshot.

Projects

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

* Project ID:	HOTEL3	* Status:	Active	Assets:	0.00																																																																																																																																																																																																																																																		
Customer:	EQUGRP - The Equity Group Investor		Hold	Liabilities:	0.00																																																																																																																																																																																																																																																		
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<table border="1"> <thead> <tr> <th colspan="13">All Records</th> </tr> <tr> <th>Original Budgeted Quantity</th> <th>UOM</th> <th>Unit Rate</th> <th>Original Budgeted Amount</th> <th>Potential CO Quantity</th> <th>Potential CO Amount</th> <th>Revised Budgeted Quantity</th> <th>Revised Budgeted Amount</th> <th>Budgeted CO Quantity</th> <th>Budgeted CO Amount</th> <th>Draft Invoices Amount</th> <th>Actual Quantity</th> <th>Actual Amount</th> <th>Completed (%)</th> <th>Pending Invoice Amount</th> <th>Performance (%)</th> <th>Retainage (%)</th> <th>Tax Cal</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>HOUR</td><td>0.0000</td><td>4,154,366.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>4,154,366.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>5.00</td></tr> 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Amount	Actual Quantity	Actual Amount	Completed (%)	Pending Invoice Amount	Performance (%)	Retainage (%)	Tax Cal	0.00	HOUR	0.0000	4,154,366.00	0.00	0.00	0.00	4,154,366.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,809,185.00	0.00	0.00	0.00	1,809,185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	8,319,840.00	0.00	0.00	0.00	8,319,840.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,210,648.00	0.00	0.00	0.00	1,210,648.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,901,356.00	0.00	0.00	0.00	1,901,356.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,225,000.00	0.00	0.00	0.00	1,225,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	989,355.00	0.00	0.00	0.00	989,355.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,638,760.00	0.00	0.00	0.00	1,638,760.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	8,110,796.00	0.00	0.00	0.00	8,110,796.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	EA	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,449,500.00	0.00	0.00	0.00	1,449,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	HOUR	0.0000	1,135,000.00	0.00	0.00	0.00	1,135,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00
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5. In the first two lines on the **Revenue Budget** tab, enter the amounts in the **Pending Invoice Amount** column: 100,000.00 and 10,000.00, and then click **Run Project Billing** on the form toolbar.

The system creates a pro forma invoice. In each line on the **Progress Billing** tab, the following amounts are shown:

- **Amount: Pending Invoice Amount** from the respective revenue budget line
- **Amount to Invoice:** Amount + Stored Material of the line
- **Retainage Amount:** Amount to Invoice * Retainage %

Pro forma totals (shown on the screenshot below) are calculated as follows:

- **Invoice Total** = Progress Billing Total + Time and Material Total + Tax Total (invoice total includes the retainage amount)
- **Tax Total** is the sum in the **Tax Amount** column on the **Tax Details** tab minus the **Retained Tax**
- **Retainage Total** is the sum of the following:
 - Retainage Amount on the **Progress Billing** tab
 - Retainage Amount on the **Time and Material** tab
 - Retained Tax on the **Tax Details** tab

Amount Due = Invoice Total - Retainage Total

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr.	000011	Project:	HOTEL3 - The Beach Hotel and Condom	Progress Billing Total:	110,000.00	
Status:	On Hold	Customer:	EQUGRP - The Equity Group Investors	Time and Material Total:	0.00	
<input checked="" type="checkbox"/> Hold				Tax Total:	0.00	
* Invoice Date:	6/1/2019			Invoice Total:	110,000.00	
* Post Period:	06-2019			Retainage Total:	5,500.00	
Description:	Invoice for HOTEL3				Amount Due:	104,500.00

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

Branch	Billing Item	Cost Code	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Retainage (%)	Retainage Amount	Tax Category	Sal
HEADOFFICE	01	01-000	GENERAL REQUIREMENTS	4,154,366.00	0.00	2.41	100,000.00	0.00	100,000.00	2.41	5.00	5,000.00		
HEADOFFICE	02	02-000	SITEWORK	1,809,185.00	0.00	0.55	10,000.00	0.00	10,000.00	0.55	5.00	500.00		
HEADOFFICE	03	03-000	CONCRETE	8,319,840.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	04	04-000	MASONRY	1,210,648.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	05	05-000	METALS	1,901,356.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	06	06-000	WOODS, PLASTICS, COMPOSITES	1,225,000.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	07	07-000	THERMAL AND MOISTURE PROTECTION	989,355.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	08	08-000	OPENINGS	1,638,760.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	09	09-000	FINISHES	8,110,796.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	10	00-000	DEFAULT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	10	10-000	SPECIALTIES	1,449,500.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		
HEADOFFICE	11	11-000	EQUIPMENT	1,135,000.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00		

To release the document, do the following:

1. On the Pro Forma Invoices (PM307000) form, clear that the **Hold** check box.
2. On the form toolbar, click **Actions > Approve**.
3. Click **Release**.
4. On the **Financial Details** tab, click the link in the **AR Ref. Nbr.** box. The created AR invoice opens on the Invoices and Memos (AR301000) form.
5. Clear the **Hold** check box, and click **Release** on the form toolbar to release the invoice.

In the invoice summary, the selected **Pay by Line** check box designates that the balances of these invoices are tracked at the line level. The default value of this setting is copied from the customer record.

As shown in the screenshot below, in each line of the AR invoice:

- The **Balance** column shows the open AR balance of the invoice line, which gets closed by payment applications.
- The **Unreleased Retainage** column shows the amount of retainage held for this line of the invoice

Invoices and Memos

SAVE & CLOSE + RELEASE ACTIONS INQUIRIES REPORTS 00:00:09

Type: Invoice	Customer: EQUGRP - The Equity Group Investors	Detail Total: 104,500.00
Reference Nbr: 000088	Terms: 300 - 30 Days	Discount Total: 0.00
Status: Open	* Due Date: 7/1/2019 <input checked="" type="checkbox"/> Apply Retainage	VAT Taxable T... 0.00
<input checked="" type="checkbox"/> Hold	* Cash Discount: 7/1/2019 <input checked="" type="checkbox"/> Pay by Line	VAT Exempt T... 0.00
Date: 6/1/2019	Project/Contract: HOTEL3 - The Beach Hotel and Condom	Tax Total: 0.00
Post Period: 06-2019		Balance: 104,500.00
Customer Order: 000011		Amount: 104,500.00
Description: Invoice for HOTEL3		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS RETAINAGE APPLICATIONS COMPLIANCE

VIEW SCHEDULE

Branch	Line	Account Nbr.	GroupItem	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Retainage Amount	Unreleased Retainage	Retained Tax	Amount	Balance	Retainage Percent	Tax Amnt
> HEADOFFICE	1			GENERAL REQUIREMENTS	0.00	HOUR	0.0000	100,000.00	0.000000	0.00	5,000.00	5,000.00	0.00	95,000.00	95,000.00	5,000000	
> HEADOFFICE	2			SITEWORK	0.00	HOUR	0.0000	10,000.00	0.000000	0.00	500.00	500.00	0.00	9,500.00	9,500.00	5,000000	
> HEADOFFICE	3			CONCRETE	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	4			MASONRY	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	5			METALS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	6			WOODS, PLASTICS, COMPOSITES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	7			THERMAL AND MOISTURE PROTECTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	8			OPENINGS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	9			FINISHES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	10			DEFAULT	0.00	EA	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	11			SPECIALTIES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	12			EQUIPMENT	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	13			SPECIAL CONSTRUCTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	14			CONVEYING SYSTEMS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	
> HEADOFFICE	15			MECHANICAL	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	5,000000	

- On the **Financial Details** tab of the Invoices and Memos form, click the link in the **Batch Nbr.** box and review the GL transactions created on release of the AR invoice (shown on the screenshot below). Notice that the total retainage amount has been posted to the AR retainage account (non-current asset account).

Journal Transactions

SAVE & CLOSE + RELEASE ACTIONS REPORTS

Module: AR	Branch: HEADOFFICE - SweetLife Head Office at ACTUAL - Actual Ledger	Type: Normal
Batch Number: AR000149	Ledger: <input checked="" type="checkbox"/> Auto Reversing <input type="checkbox"/> Reversing Entry	Orig. Batch Number:
Status: Posted		Debit Total: 110,000.00
<input checked="" type="checkbox"/> Hold		Credit Total: 110,000.00
Transaction D... 6/1/2019		
Post Period: 06-2019		
Description: Invoice for HOTEL3		

VIEW SOURCE DOCUMENT RECLASSIFICATION HISTORY

Branch	Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Transaction Date	Quantity	UOM	Debit Amount	Credit Amount	Transaction Description	Non Billable
> HEADOFFICE	11000	Accounts Receivable	X		00-000	000088	6/1/2019	0.00		104,500.00	0.00	Invoice for HOTEL3	<input type="checkbox"/>
> HEADOFFICE	18000	AR Retainage	X		00-000	000088	6/1/2019	0.00		5,500.00	0.00	Invoice for HOTEL3	<input type="checkbox"/>
> HEADOFFICE	40000	Project Revenue	HOTEL3	01	01-000	000088	6/1/2019	0.00	HOUR	100,000.00	0.00	GENERAL REQUIREMENTS	<input type="checkbox"/>
> HEADOFFICE	40000	Project Revenue	HOTEL3	02	02-000	000088	6/1/2019	0.00	HOUR	10,000.00	0.00	SITEWORK	<input type="checkbox"/>

Releasing Retainage from AR Invoices and Payment Applications

Open AR and unreleased retainage (retainage held) balances can be tracked at the AR invoice summary level or at the line level. The option (whether the document balances are at the summary or line level) is determined for each document individually. The default option is inherited by a new document from the customer record: **Pay by Line** check box on the **General Info** tab of the Customers (AR303000) form.

If balances are tracked at the line level, payments are also applied to such AR invoices at the line level. This lesson demonstrates the workflow with invoices with open AR and retainage balances at the line level.

To release retainage and payment applications, do the following:

- On the Invoices and Memos (AR301000) form, open the earlier created AR invoice for the HOTEL3 project.

2. If the invoice balances are tracked at the line level, retainage is released at the line level too. Click **Actions > Release Retainage** on the form toolbar. The system opens the Release AR Retainage (AR510000) form.
3. In the Summary area of the Release AR Retainage form, specify 20.00 in the **Retainage Percent** box. In the **Retainage to Release** column, the system calculates 20% of the retainage amount to release from each of the invoice lines.
4. For the first line, change the amount in the **Retainage to Release** column to 2,000.00.
5. Select both lines and click **Process**, as shown in the following screenshot.

Branch	Type	Reference Nbr.	Customer	Line Nbr.	Percent to Release	Retainage to Release	Unreleased Retainage	Date	Total Amount	Project	Description	Post Period	Customer
HEADOFFICE	Invoice	000088	EQUGRP	1	40.000000	2,000.00	3,000.00	6/1/2019	100,000.00	HOTEL3	Invoice for HOTEL3	06-2019	000011
HEADOFFICE	Invoice	000088	EQUGRP	2	20.000000	100.00	400.00	6/1/2019	10,000.00	HOTEL3	Invoice for HOTEL3	06-2019	000011

The processing dialog box opens. When the process is complete, the system creates a retainage AR invoice. Close the dialog box.

6. Open the Projects (PM301000) form and select the *HOTEL3* project.

On the **Invoices** tab, you can see all the AR invoices and credit memos (see the screenshot below). For a retainage invoice, the check box in the **Retainage Invoice** column is selected and the reference to the original invoice from which it has been created is specified in the **Original Document** column.

Currency	AR Doc. Type	AR Reference Nbr.	AR Doc. Date	AR Doc. Description	AR Doc. Orig. Amount	Original Retainage	AR Doc. Total Amount	Open AR Balance	Currency	AR Doc. Status	Unreleased Retainage	Retainage Invoice	Original Document
USD	Invoice	000088	6/1/2019	Invoice for HOTEL3	104,500.00	5,500.00	110,000.00	104,500.00	USD	Open	5,500.00	<input type="checkbox"/>	000088
	Invoice	000089	6/1/2019	Invoice for HOTEL3	2,100.00	0.00	2,100.00	2,100.00	USD	On Hold	0.00	<input checked="" type="checkbox"/>	000088

7. To open the retainage invoice on the Invoices and Memos form, click the link in the AR Reference Nbr. box.
8. Make sure that the **Hold** check box is cleared, and click **Release** on the form toolbar to release the invoice. The retainage invoice now has the regular open AR balance (see the screenshot below) that can be closed by payment applications as the open AR balance of any other regular invoice.

Invoices and Memos

SAVE & CLOSE RELEASE ACTIONS INQUIRIES REPORTS 00:00:01

Type: Invoice	Customer: EQUGRP - The Equity Group Investors	Detail Total: 2,100.00
Reference Nbr: 000089	Terms: 300 - 30 Days	Discount Total: 0.00
Status: Open	* Due Date: 7/1/2019 <input checked="" type="checkbox"/> Retainage Invoice	VAT Taxable T... 0.00
<input type="checkbox"/> Hold	* Cash Discount: 7/1/2019 <input checked="" type="checkbox"/> Pay by Line	VAT Exempt T... 0.00
Date: 6/1/2019	Project/Contract: HOTELS - The Beach Hotel and Condom	Tax Total: 0.00
Post Period: 06-2019		Balance: 2,100.00
Customer Order: 000011		Amount: 2,100.00
Description: Invoice for HOTELS		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS APPLICATIONS COMPLIANCE

VIEW SCHEDULE

Branch	Line Nbr.	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Amount	Balance	Tax Amount	*Account	Description
> HEADOFFICE	1	Retainage for Invoice 000088	0.00	0.0000	2,000.00	0.000000	0.00	2,000.00	2,000.00	0.00	18000	0.00	AR Retainage	
& HEADOFFICE	2	Retainage for Invoice 000088	0.00	0.0000	100.00	0.000000	0.00	100.00	100.00	0.00	18000	0.00	AR Retainage	

Notice that the retainage AR invoice has the project key in each of the lines that match the project key of the original invoice line, including project (in the invoice header), project task, cost code, and inventory ID (item), except for GL account. GL account in a line of a retainage invoice is the AR retainage account, while the GL account of the original invoice line is a revenue account.

The project structure is carried on from the lines of an original invoice to retainage invoice lines in the **Pay by Line** mode only. Project structure classification in AR invoice lines could be useful for reporting purposes based on the ARTran table (this table stores lines of AR invoices and credit memos).

- On the **Financial Details** tab, click the link in the **Batch Nbr.** box and review the GL transactions created from the retainage invoice, shown on the screenshot below. Notice that the amount has been moved from the AR retainage account to the AR account (current asset).

Journal Transactions

SAVE & CLOSE RELEASE ACTIONS REPORTS

Module: AR	Branch: HEADOFFICE - SweetLife Head Office at ACTUAL - Actual Ledger	Type: Normal
Batch Number: AR000150	Ledger: <input type="checkbox"/> Auto Reversing <input type="checkbox"/> Reversing Entry	Orig. Batch Number:
Status: Posted		Debit Total: 2,100.00
<input type="checkbox"/> Hold		Credit Total: 2,100.00
Transaction D... 6/1/2019		
Post Period: 06-2019		
Description: Invoice for HOTEL3		

VIEW SOURCE DOCUMENT RECLASSIFICATION HISTORY

Branch	*Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Transaction Date	Quantity	UOM	Debit Amount	Credit Amount	Transaction Description	Non Billable
> HEADOFFICE	11000	Accounts Receivable	X		00-000	000089	6/1/2019	0.00		2,100.00	0.00	Invoice for HOTEL3	<input type="checkbox"/>
& HEADOFFICE	18000	AR Retainage	X		00-000	000089	6/1/2019	0.00		2,000.00	0.00	Retainage for Invoice 000088	<input type="checkbox"/>
& HEADOFFICE	18000	AR Retainage	X		00-000	000089	6/1/2019	0.00		100.00	0.00	Retainage for Invoice 000088	<input type="checkbox"/>

- Return to the Invoices and Memos form and on the **Financial Details** tab, click the link in the **Original Document** box to open the original invoice. Notice the decreased **Unreleased Retainage** balances in the invoice lines. For example, for the first line, the originally retained amount was \$5,000.00, the amount of \$2,000.00 has been released, and the remaining unreleased retainage balance is \$3,000.00. **Open AR Balance** of the invoice line remains \$95,000.00 because no payments were applied to the invoice yet.

- Click **Actions > Enter Payment/Apply Memo** on the form toolbar.

- On the Payments and Applications (AR302000) form, which opens, for the two lines from the invoice, the system has automatically populated the **Amount Paid** column with the amount from the **Balance** column of each invoice line.

13. On the table toolbar of the **Documents to Apply** tab, click the plus button and add the lines of the retainage invoice in the full amount of the open balance by performing the following instructions:

- In the **Reference Nbr.** column, select the reference number of the retainage invoice.
- In the **Line Nbr.** column, select the first line (1) to be added.
- In the **Amount Paid** column, specify the total amount of the line to be paid (\$2000).
- Perform Instructions a-c for the second line with the 2 line number and \$100 total amount.

HINT: For convenient data entry, you can move the **Balance** column on the **Documents to Apply** tab closer to the **Amount Paid** column.

14. In the Summary area, enter 106,600.00 in the **Payment Amount** box.

15. Make sure the **Hold** check box is cleared, and click **Release** on the form toolbar to release the payment along with the payment applications to the invoice lines. The lines have been moved to the **Application History** tab, as shown in the following screenshot.

The screenshot shows the 'Payments and Applications' screen. At the top, there are tabs for 'DOCUMENTS TO APPLY' and 'APPLICATION HISTORY'. The 'APPLICATION HISTORY' tab is selected, showing a list of payment applications. The table has columns for Branch, Batch Number, Doc. Type, Reference Nbr., Line Nbr., Inventory ID, Project, Project Task, Cost Code, Account, Customer, Amount Paid, Cash Discount Taken, Write-Off Amount, Application Period, Date, and Due Date. There are four rows in the table, each corresponding to a payment application for AR000151.

Branch	Batch Number	Doc. Type	Reference Nbr.	Line Nbr.	Inventory ID	Project	Project Task	Cost Code	Account	Customer	Amount Paid	Cash Discount Taken	Write-Off Amount	Application Period	Date	Due Date
HEADOFFICE	AR000151	Invoice	000088	1	HOTEL3	01	01-000	40000		EQUGRP	95,000.00	0.00	0.00	02-2020	6/1/2019	7/1/2019
HEADOFFICE	AR000151	Invoice	000088	2	HOTEL3	02	02-000	40000		EQUGRP	9,500.00	0.00	0.00	02-2020	6/1/2019	7/1/2019
HEADOFFICE	AR000151	Invoice	000089	1	HOTEL3	01	01-000	18000		EQUGRP	2,000.00	0.00	0.00	02-2020	6/1/2019	7/1/2019
HEADOFFICE	AR000151	Invoice	000089	2	HOTEL3	02	02-000	18000		EQUGRP	100.00	0.00	0.00	02-2020	6/1/2019	7/1/2019

16. Open the original invoice on the Invoices and Memos form. Notice that the open AR balance of the invoice is zero, but the invoice retains the *Open* status. The original invoice becomes *Closed* only when all of the retainage AR invoices get closed, that is - the open AR balances of the retainage invoices are paid in full.

On the **Retainage** tab of the original AR invoice, you can find links to all of the retainage invoices and credit memos that were created from this original invoice.

Performing T&M Billing with Retainage

In case of transaction-based billing (by means of a *Time and Material* step of the billing rule), the retainage % that is specified at the project level applies by default to each of the invoice lines that originate from the billed transactions.

Suppose the contract of the HOTEL3 project dictates 5% retainage to be held from any amount that is subject to invoice for this project.

To process T&M billing with retainage, do the following:

1. Open the Projects (PM301000) form and select **HOTEL3** in the **Project ID** box.
2. On the **Summary** tab, make sure that the retainage percent in the **Retainage (%)** box is 5.00.
3. On the **Tasks** tab, click **Add Row** on the table toolbar, and add a new project task with the following settings (shown on the screenshot below):
 - **Task ID:** 20
 - **Type:** *Sub Job/Schedule of Values*
 - **Description:** Ad-hoc miscellaneous expenses
 - **Billing Rule:** *TM*
 - **Status:** Active

Projects

SAVE & CLOSE + K X RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS INQUIRIES REPORTS

All Records																																																																																																																																																																																																												
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT																																																																																																																																																																																																
* Project ID: HOTEL3	* Status: Active	Assets: 0.00	Customer: EQUGRP - The Equity Group Investor	Liabilities: 0.00	Template: <i>The Beach Hotel and Condominiums</i>	Income: 110,000.00	Expenses: 0.00																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th>Task ID</th> <th>Type</th> <th>Description</th> <th>Rate Table</th> <th>Allocation Rule</th> <th>Billing Rule</th> <th>Status</th> <th>Completed (%)</th> <th>Start Date</th> <th>End Date</th> <th>Approver</th> <th>* Billing Option</th> </tr> </thead> <tbody> <tr><td>01</td><td>Sub Job/Schedule of Values</td><td>CONCRETE</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>04</td><td>Sub Job/Schedule of Values</td><td>MASONRY</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>05</td><td>Sub Job/Schedule of Values</td><td>METALS</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>06</td><td>Sub Job/Schedule of Values</td><td>WOOD, PLASTICS, COMPOSITES</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>07</td><td>Sub Job/Schedule of Values</td><td>THERMAL AND MOISTURE PROTECTION</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>08</td><td>Sub Job/Schedule of Values</td><td>OPENINGS</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>09</td><td>Sub Job/Schedule of Values</td><td>FINISHES</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>10</td><td>Sub Job/Schedule of Values</td><td>SPECIALTIES</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>11</td><td>Sub Job/Schedule of Values</td><td>EQUIPMENT</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>12</td><td>Sub Job/Schedule of Values</td><td>FURNISHINGS</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>13</td><td>Sub Job/Schedule of Values</td><td>SPECIAL CONSTRUCTION</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>14</td><td>Sub Job/Schedule of Values</td><td>CONVEYING SYSTEMS</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>15</td><td>Sub Job/Schedule of Values</td><td>MECHANICAL</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr><td>16</td><td>Sub Job/Schedule of Values</td><td>ELECTRICAL</td><td></td><td></td><td>PROGRESS</td><td>Active</td><td>0.00</td><td>3/1/2019</td><td></td><td></td><td>By Billing</td></tr> <tr style="outline: 2px solid red;"> <td>> 20</td><td>Sub Job/Schedule of Values</td><td>Ad-hoc miscellaneous expenses</td><td></td><td></td><td>TM</td><td>Active</td><td>0.00</td><td>2/20/2020</td><td></td><td></td><td>By Billing</td></tr> </tbody> </table>													Task ID	Type	Description	Rate Table	Allocation Rule	Billing Rule	Status	Completed (%)	Start Date	End Date	Approver	* Billing Option	01	Sub Job/Schedule of Values	CONCRETE			PROGRESS	Active	0.00	3/1/2019			By Billing	04	Sub Job/Schedule of Values	MASONRY			PROGRESS	Active	0.00	3/1/2019			By Billing	05	Sub Job/Schedule of Values	METALS			PROGRESS	Active	0.00	3/1/2019			By Billing	06	Sub Job/Schedule of Values	WOOD, PLASTICS, COMPOSITES			PROGRESS	Active	0.00	3/1/2019			By Billing	07	Sub Job/Schedule of Values	THERMAL AND MOISTURE PROTECTION			PROGRESS	Active	0.00	3/1/2019			By Billing	08	Sub Job/Schedule of Values	OPENINGS			PROGRESS	Active	0.00	3/1/2019			By Billing	09	Sub Job/Schedule of Values	FINISHES			PROGRESS	Active	0.00	3/1/2019			By Billing	10	Sub Job/Schedule of Values	SPECIALTIES			PROGRESS	Active	0.00	3/1/2019			By Billing	11	Sub Job/Schedule of Values	EQUIPMENT			PROGRESS	Active	0.00	3/1/2019			By Billing	12	Sub Job/Schedule of Values	FURNISHINGS			PROGRESS	Active	0.00	3/1/2019			By Billing	13	Sub Job/Schedule of Values	SPECIAL CONSTRUCTION			PROGRESS	Active	0.00	3/1/2019			By Billing	14	Sub Job/Schedule of Values	CONVEYING SYSTEMS			PROGRESS	Active	0.00	3/1/2019			By Billing	15	Sub Job/Schedule of Values	MECHANICAL			PROGRESS	Active	0.00	3/1/2019			By Billing	16	Sub Job/Schedule of Values	ELECTRICAL			PROGRESS	Active	0.00	3/1/2019			By Billing	> 20	Sub Job/Schedule of Values	Ad-hoc miscellaneous expenses			TM	Active	0.00	2/20/2020			By Billing
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4. Click **Save** to save your changes.
5. Click the link in the **Billing Rule** column to review the *TM* billing rule on the Billing Rules (PM207000) form that opens. The rule has three steps for billing of transactions that are posted to *MATERIAL*, *LABOR*, or *SUBCON* account groups. The calculation formula is the following: the amount of expense multiplied by 1.25 = the billed amount for the transaction.

In the **HOTEL3** project, the rule will apply to the transactions that are recorded to the project task 20 only, because the billing rule is specified for this project task only.

6. In the upper-right corner of the top pane of the Acumatica ERP screen, set the business date in your system to 7/1/2019.

7. Open the Project Transactions (PM304000) form, click **Add New Record** on the form toolbar and enter a project transaction with the following settings (shown on the screenshot below):

- **Module:** PM
- **Description:** Misc expenses
- **Document Details** tab: add the following transaction (no posting to GL):
 - **Branch:** HEADOFFICE
 - **Project:** HOTEL3
 - **Sub Job/Schedule of Values** (Project Task): 20
 - **Cost Code:** 00-000
 - **Account Group:** LABOR
 - **Inventory ID:** LABOR
 - **Description:** Construction Labor
 - **UOM:** HOUR
 - **Quantity:** 1.50
 - **Billable:** Selected
 - **Billable Quantity:** 1.00
 - **Unit Rate:** 30.00
 - **Amount:** 45.00 (calculated automatically)

Branch	Project	Sub Job/Schedule of Values	Cost Code	Account Group	Employee	Customer/Ve	Inventory ID	Description	UOM	Quantity	Billable	Billable Quantity	Unit Rate	Amount	Debit Account
HEADOFFICE	HOTEL3	20	00-000	MATERIAL			LABOR	Construction Labor	HOUR	1.50	<input checked="" type="checkbox"/>	1.00	30.0000	45.00	

8. On the form toolbar, click **Release** to release the project transaction.
9. Open the Projects form and select HOTEL3 in the **Project ID** box. On the form toolbar, click **Run Project Billing**.

- 10.** On the Pro Forma Invoices (PM307000) form, which opens, review the **Time and Material** tab of the created pro forma invoice. The Retainage % of the project applies to each of the TM lines of the pro forma invoice.

In the columns for each of the invoice lines on this tab, the following amounts are shown:

- **Billed Amount:** The amount calculated by the billing rule formula
- **Amount to Invoice:** Billed Amount, this is the amount of the invoice line that can be corrected, if necessary
- **Retainage Amount:** Amount to Invoice * Retainage % of the line, can be corrected, if necessary

HINT: You can click **View Transaction Details** on the toolbar of the tab to view the source transactions that were billed to produce the selected invoice line on this tab.

- 11.** Make sure the **Hold** check box is cleared.

- 12.** On the form toolbar, click **Release** to release the pro forma invoice and review the created AR invoice on the Invoices and Memos (AR301000) form, shown on the screenshot below. The amounts from the pro forma invoice have been copied to the AR invoice lines as follows:

- **Ext. Price:** Amount to Invoice from the pro forma invoice line
- **Retainage Amount:** Retainage Amount of the pro forma line

NOTE: Retainage percent in the AR invoice line may differ from the retainage percent of the pro forma line due to rounding difference. Retainage percent in the AR invoice line is calculated as Retainage Amount / Ext. Price.

The screenshot shows the 'Invoices and Memos' form with the following details:

- Type:** Invoice
- Customer:** EOUGRP - The Equity Group Investors
- Detail Total:** \$3.44
- Discount Total:** \$0.00
- Status:** On Hold
- Date:** 7/1/2019
- Post Period:** 07-2019
- Project/Contract:** HOTELS3 - The Beach Hotel and Condom
- Balance:** \$3.44
- Cash Discount:** \$0.00

DOCUMENT DETAILS

Line Nbr.	Account Group Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Retainage Amount	Amount	Retainage Percent	Account	Description
3		CONCRETE	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
4		MASONRY	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
5		METALS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
6		WOODS, PLASTICS, COMPOSITES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
7		THERMAL AND MOISTURE PROTECTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
8		OPENINGS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
9		FINISHES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
10		DEFAULT	0.00	EA	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
11		SPECIALTIES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
12		EQUIPMENT	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
13		SPECIAL CONSTRUCTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
14		CONVEYING SYSTEMS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
15		MECHANICAL	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
16		ELECTRICAL	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	5.000000	40000	Project Revenue
17	LABOR	Construction Labor	1.00	HOUR	56.2500	56.25	0.000000	0.00	2.81	53.44	4.995556	40000	Project Revenue

- 13.** On toolbar of the Invoices and Memos form, click **Inquiries > View Pro Forma** to go back to the pro forma invoice.

NOTE: If you have **Pending Invoice Amount** for billing on the **Revenue Budget** tab and transactions for TM billing, all of the lines can be included in a single pro forma invoice appearing on the respective tabs of the Pro Forma Invoices form, **Progress Billing** and **Time and Material**. You can also configure project billing to segregate TM billing to an invoice separate from progress billing invoices. For more information, refer to the *Project Accounting* training course.

The following sections are provided for reference and not required for completing this training.

Importing Open AR Invoices

You can import open AR invoices to Acumatica ERP by doing the following:

1. On the Accounts Receivable Preferences (AR101000) form, make sure that the **Activate Migration Mode** check box is cleared.

NOTE: This mode does not support import of documents with open retainage balances.

2. On the Invoices and Memos (AR301000) form, create a new invoice for each open original invoice, specify AR **open balance** and **unreleased retainage** (instead of the original amounts) and release the invoices. After that the customer balances and retained balances will be correct in the AR subledger.

For example, an AR invoice exists in a legacy system with the original AR amount of \$1000 and the unreleased retainage of \$100. The invoice has been partially paid for the amount of \$100 and the retainage has been partially released for the amount of \$10 in the legacy system. The remaining balance of the invoice is \$900 (\$1000 - \$100) and the remaining unreleased retainage is \$90 (\$100 - \$10). In Acumatica ERP, you need to create an invoice with the AR amount of \$900 and the retainage amount of \$90. After you release this invoice, the AR amount becomes the AR balance.

3. On the Trial Balance (GL303010) form, upload trial balances in the GL subledger, no need to reverse batches posted by the AR subledger.

Note: To be able to complete further lessons, clear the **Activate Migration Mode** check box on the Accounts Receivable Preferences form.

Enabling Retained Taxes

A tax amount calculated on the retainage amount can be posted to a separate GL account instead of the Tax Payable account if the tax amount has to be retained along with the respective retainage amount of the invoice.

To enable retained taxes, you do the following:

1. Open the Accounts Receivable Preferences (AR101000) form.
2. Select the **Retain Taxes** check box in the **Retainage Settings** section on the **General Settings** tab, and save the changes.

Functionality Restrictions in Invoices with AR Balance and Retainage at the Line Level

- The migration mode option on the Accounts Receivable Preferences (AR101000) form. The feature is not compatible with the migration mode. If the **Activate Migration Mode** check box is selected, the **Pay by Line** check box on data entry forms is disabled for editing, and there is no way to specify line balances and unreleased retainage balances in AR documents.
- Group and document discounts are not supported in invoices with AR balances at the line level with or without retainage.
- VAT recalculated on cash discounts is not supported.
- Negative line amounts in invoices are not supported.
- Invoices in foreign currency are not supported if they are with retainage at the line level. Invoices with AR balance at the line level without retainage support foreign currencies.
- Calculation of taxes by using Avalara integration is not supported.
- The *Invoice Rounding* feature is not supported.
- It is not possible to apply existing open AR payments or credit memos on the **Applications** tab of the Invoices and Memos (AR301000) form to an invoice with AR balance and retainage at the line level.
- Multiple-installment credit terms are not supported if an invoice is with retainage.
- Editing of tax amount and retained tax amount for inclusive taxes - that is, VAT and sales taxes that use the *Extract from Item Amount* calculation method is not supported.
- Balance write offs cannot be performed at the line level.
- The **Reverse and Apply to Memo** action on the Invoices and Memos form is not supported for invoices with the **Pay by Line** check box selected in the Summary area of this form.

NOTE: Users can reverse invoices by clicking **Actions > Reverse** on the toolbar of the Invoices and Memos (AR301000) form. The system creates a credit memo for the amount of the invoice. After the credit memo is released, it must be manually applied to the invoice that has been reversed, so the open balances of both documents get closed.

Lesson 4: Subcontracts

A subcontract is a document that represents a commitment with a vendor to provide goods and services for a project. Subcontract workflow is similar to the workflow of a purchase order that contains service lines and non-stock lines only. AP bills are entered directly for a subcontract once the work has been completed and the AP document has been received from the vendor.

Subcontractors are specialty vendors that are hired to complete a part of the project for which your company has no employees.

Learning Objectives

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

- Create notification templates for subcontracts
- Set up subcontract mailings for particular vendors
- Create, edit, print, and email subcontracts
- Enter AP bills for subcontracts
- Track commitments and costs related to subcontracts

Story

We hire a subcontractor, Standard Hardware Company, to help us install windows and doors in the hotel that we are building. After some consideration, we agree with the subcontractor that they will install only windows, and we will hire a different subcontractor to install doors later.

System Preparation

Sign in to the system as a project manager by using the *owen* login and *123* password.

Configuring Subcontract Mailings

To configure subcontract mailings for vendors, do the following:

1. Create a notification template for subcontracts by doing as follows:
 - a. Open the Notification Templates (SM204003) form, and click **Add New Record**.
 - b. In the **Screen Name** box, select the Subcontracts (SC301000) form.
 - c. In the **Description** box, type *Subcontracts*.
 - d. In the **From** box, select the *System* email account.

This is the default account from which emails with subcontracts will be sent to vendors.

- e. In the **Subject** box, type *Subcontract email*.
 - f. In the text editor area on the **Message** tab, specify the following text:

Dear Vendor,

Here's your subcontract.

Sincerely yours,

SweetLife
 - g. Save the changes.
2. On the Vendor Classes (AP201000) form, select the *SUBCON* vendor class, on the **Mailing Settings** tab, and do the following:
 - a. Make sure that the *SUBCONTRACT* mailing is listed in the **Mailings** table and marked as *Active*.
 - b. For the *SUBCONTRACT* mailing, select the *System* email account in the **Email Account** column and the *Subcontracts* notification template in the **Notification Template** column.
 - c. Make sure that *SC.64.10.00* is specified in the **Report** column. This is the identifier of the Subcontract printed form that will be used for generating a short form of a subcontract to be attached to an email.
 - d. In the **Recipients** table below, add a row with the *Remittance* contact type selected. (Leave the default values for the remaining settings.)
 - e. Save the changes.

3. On the Vendors (AP303000) form, select the *HARDCO* vendor and click the **Mailing Settings** tab.

Make sure that the settings of the *SUBCONTRACT* mailing have been copied from the *SUBCON* vendor class. These settings will be used for the *HARDCO* vendor, which belongs to that vendor class and which you will use in the exercise below.

Note that mailing settings may be overridden and set up as needed for any individual vendor.

Working with Subcontracts

Process a subcontract as follows:

1. On the Subcontract Preferences (SC101000) form, make sure that the **SUBCONTR** numbering sequence is specified in the **Subcontract Numbering Sequence** box. Save the settings if needed.
 2. On the Subcontracts (SC301000) form, create a subcontract with the following settings:
 - **Vendor:** HARDCO - Standard Hardware Company
 - **Description:** Windows and Doors
 - On the **Document Details** tab, add lines with the following settings:

Line #	Account Group/ Item	Project	Sub Job	Cost Code	Line Description	Ext. Cost
1	SUBCON	HOTEL	08	08-510	Windows	650,000
2	SUBCON	HOTEL	08	08-200	Doors and frames	442,000
3	SUBCON	HOTEL	08	08-800	Entrance	2,000,000

3. Review the subcontract totals.
4. On the **Other Information** tab, clear the **Don't Print** and **Don't Email** check boxes.

If these check boxes are selected, the subcontract will get the *Open* status immediately after it is taken off hold.

5. Clear the **Hold** check box and save the changes.

The subcontract gets the *Pending Printing* status.

6. Click **Reports > Print Subcontract** on the form toolbar.

A short form of the subcontract opens on the Subcontract (SC641000) form.

Click **Print** on the form toolbar to print the short form of the subcontract. (You don't need to actually print the subcontract in this lesson—you can return to the Subcontracts form right away.)

After the subcontract has been printed, it gets the *Pending Email* status.

7. On the form toolbar of the Subcontracts form, click **Actions > Email Subcontract**.

The system processes the subcontract and creates an email activity associated with the subcontract. As a result, the **Activities** counter on the title bar of the form increases by one, as the following screenshot shows. Click that counter.

Subcontracts

SAVE & CLOSE + - X K < > I ACTIONS REPORTS 00:00:04

Subcontract Nbr.:	SC-000003	Vendor:	HARDCO - Standard Hardware Company		Line Total:	3,092,000.00
<input type="checkbox"/> Hold		Owner:			Discount Total:	0.00
Status:	Open	Currency:	USD	1.00	VAT Exempt T...	0.00
Date:	10/23/2019	Vendor Ref.:			VAT Taxable T...	0.00
Start Date:	10/23/2019			Tax Total:		0.00
Description:	Windows and Doors				Retainage Total:	0.00
					Subcontract To...	3,092,000.00

DOCUMENT DETAILS **TAX DETAILS** **VENDOR INFO** **DISCOUNT DETAILS** **SC HISTORY** **PREPAYMENTS** **CHANGE ORDERS** **OTHER INFORMATION** **COMPLIANCE**

* Branch	Account Group/Iter	* Project	Sub Job	Cost Code	Line Description	UOM	Order Qty.	Unit Cost	Ext. Cost	Discount Percent	Discount Amount	Manual Discount	Discount Code
> 0 □ HEAD...	SUBCON	HOTEL	08	08-510	Windows	EA	0.00	0.0000	650,000.00	0.000000	0.00	<input checked="" type="checkbox"/>	
0 □ HEAD...	SUBCON	HOTEL	08	08-200	Doors and Frames	EA	0.00	0.0000	442,000.00	0.000000	0.00	<input checked="" type="checkbox"/>	
0 □ HEAD...	SUBCON	HOTEL	08	08-800	Entrance	EA	0.00	0.0000	2,000,000.00	0.000000	0.00	<input checked="" type="checkbox"/>	

8. In the **Tasks and Activities** dialog box that opens, click the *Subcontract email* link to review the generated email.

Tasks & Activities

ADD TASK ADD EVENT ADD ACTIVITY

24 Oct **Subcontract email**

9. On the Email Activity form that opens, review the sender and recipient email addresses, the message of the email, and the summary information of the subcontract. Click **Files** on the title bar.

Email Activity

SAVE & CLOSE + - X REPLY ACTIONS

From:	System	Subcontract
To:	ar@hardco.con	Order Nbr.: SC-000003
CC:		Vendor: Standard Hardware Company
BCC:		Location: Primary Location
Subject:	Subcontract email	Date: 10/23/2019 12:00:00 AM
		Status: Open

MESSAGE **DETAILS**

Dear Vendor,
Here's your subcontract.
Sincerely yours,
SweetLife

10. In the **Files** dialog box, click the link to the attached PDF file and review the short form of the subcontract that has been attached to the email generated for the vendor.

The screenshot shows a 'Files' dialog box with a table containing one row. The first column is 'File name', the second is 'Comment', and the third is 'Last Date'. A red box highlights the 'File name' cell for the first row, which contains the text 'Subcontract - (10/24/2019)...'. The 'Last Date' cell shows '10/24/2019' and has an 'Edit' link.

File name	Comment	Last Date
> Subcontract - (10/24/2019)...		10/24/2019 Edit

A short form of the subcontract has been generated because the Subcontracts (SC641000) printed form is specified in the mailing settings for the vendor.

- 11.** Return to the Subcontracts (SC301000) form, review the status of the subcontract—it has changed to *Open*.

Click the **Actions** menu on the form toolbar and note that the **Email Subcontracts** menu option is still available. You can email a subcontract that has the *Open* status as many times as needed. (For instance, you may need to resend the email after you have changed the text of the message or the email address of the recipient). The latest email will be added to the top of the list of the activities associated with the subcontract.

Note that by using the Subcontract Summary (SC610500) and Subcontract Details by Vendor (SC611000) forms, you can generate reports that show subcontract data at different levels of detail, sorted by vendor.

- 12.** Review the **Commitments** tab of the Projects (PM301000) form for the *HOTEL* project.

The screenshot shows the 'Projects' form for the 'HOTEL' project. The 'COMMITMENTS' tab is active. A table below shows a single record:

Order Nbr.	Date	Vendor	Vendor Name	Order Qty	Order Total
SC-000014	1/17/2020	HARDCO	Standard Hardware Company	0.00	3,092,000.00

- 13.** Return to the Subcontracts (SC301000) form, on the **Document Details** tab, make sure that the *Windows and Doors* subcontract is selected, and then click **Actions > Enter AP Bill** on the form toolbar.

- 14.** On the **Document Details** tab of the Bills and Adjustments (AP301000) form that opens, remove the *Doors and Frames* and *Entrance* document lines because it was agreed that only windows will be installed at this point.

- 15.** Clear the **Hold** check box, and then click **Release** on the form toolbar.

Bills and Adjustments 

 NOTES

← SAVE & CLOSE  +      RELEASE ACTIONS INQUIRIES REPORTS 00:00:05

Type:	Bill	Vendor:	HARDCO - Standard Hardware Company	Detail Total:	650,000.00
Reference Nbr.:	000051	Terms:	30D - 30 Days	Discount Total:	0.00
Status:	Open	* Due Date:	11/24/2019	<input checked="" type="checkbox"/> Apply Retainage	VAT Taxable Total: 0.00
	<input type="checkbox"/> Hold	* Cash Discount...:	11/24/2019		VAT Exempt Total: 0.00
Date:	10/25/2019			Tax Total:	0.00
Post Period:	10-2019			With. Tax:	0.00
Vendor Ref.:				Balance:	650,000.00
Description:	Windows and Doors			Amount:	650,000.00
				Cash Discount:	0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS RETAINAGE APPLICATIONS COMPLIANCE

    VIEW SCHEDULE ADD PO RECEIPT ADD PO RECEIPT LINE ADD PO ADD SUBCONTRACTS ADD PO LINE ADD SUBCONTRACT LINE ADD LC

Line Nbr.	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Retainage Percent
> 0 HEADOFFICE	1 SUBCON	Windows	0.00	EA	0.0000	650,000.00	0.00	0.000000

16. Click **Actions > Pay Bill/Apply Adjustment** on the form toolbar and then do the following on the Check and Payments (AP302000) form that opens:

- In the **Payment Method** box, select *CASH*.

Note that normally you don't have to select a different payment method if you don't need to. In this lesson, we do so only to skip the printing of the check or specifying the payment reference number before the document can be released.

- In the **Cash Account** box, select *10100ST*.
- Clear the **Hold** check box.
- Click **Release** on the form toolbar.

As a result, the check and the bill get the *Closed* status and transactions are posted to the GL.

17. On the **Cost Budget** tab of the Projects form, for the *HOTEL* project, review the updated costs for the cost budget line that includes the *08-510* cost code.

Project Details												Financials		Assets & Liabilities		Income Statement		Balances		Commitments		Invoices		Change Orders		Change Requests		Union Locals		Activity History		Employees		Equipment	
Project ID:		HOTEL			Status:		Active		Assets:		0.00		Customer:		Assets:		Liabilities:		0.00		Template:		Income:		22,667,202.71		Description:		Expenses:		650,000.00				
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT																							
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- 18.** On the Subcontracts form, open the subcontract that you have prepared earlier in this lesson, and click **Actions** > **Complete Subcontract**.

We completed the subcontract because it was agreed with the subcontractor that they will install only windows, and a different subcontractor will be hired to install doors later.

Lesson 5: AP Bills with Retainage

Open AP and unreleased retainage (retainage held) balances can be tracked at the AP bill summary level or at the line level. The option (whether the document balances are at the summary or line level) is determined for each document individually. The default option is inherited by a new document from the vendor record: the **Pay by Line** check box on the **Payment Settings** tab of the Vendors (AP303000) form.

If balances are tracked at the line level, payments are also applied to such AP bills at the line level. This lesson demonstrates the workflow with AP bills with open AP and retainage balances at the line level.

Learning Objectives

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

- Create and process a bill with retainage held at the line level
- Release retainage for the bill
- Enter a payment for the retainage bill
- Pay an outstanding balance of the original bill

Additionally, you will learn about:

- Importing of open AP bills
- Configuring retained taxes
- Functionality restrictions in bills with AP balance and retainage at the line level

Story

Suppose that the SweetLife company hired a subcontractor to install air conditioning systems. By subcontract, it has been agreed that \$2,400,00.00 will be paid to the subcontractor for work and 10% of each payment will be withheld by the company until the related work is finished.

Then the company receives the first bill for 30% of the work. A project accountant enters a bill of \$720,000.00 that includes the retainage of 10% and enters a payment of \$680000 for the bill. After some work has been finished by the subcontractor, the company pays the bill for 1% of retainage and the outstanding balance of the first bill.

System Preparation

Sign in to the system as a project manager by using the *owen* login and *123* password. Make sure that the **HEADOFFICE** (SweetLife Head Office and Wholesale Center) branch of the **SWEETLIFE** company is selected on the Company and Branch selection menu.

Reviewing the Retainage and Project Settings

To review the needed settings, do the following:

1. On the Enable/Disable Features (CS100000) form, make sure the *Payment Application by Line* feature is enabled.
2. Open the Vendors (AP303000) form and in the **Vendor ID** box, select **HVACCO**.
3. On the **Payment Settings** tab, make sure the **Pay by Line** check box is selected.
4. On the **General Info** tab, make sure the following settings are specified:
 - **Apply Retainage:** Selected
 - **Retainage Percent:** 10.00
5. Open the Projects (PM301000) form and in the **Project ID** box, select **HOTEL**.
6. Make sure the project is active (*Active* is selected in the **Status** box in the Summary area) and all project tasks are active (on the **Tasks** tab, *Active* is shown in the **Status** column for the tasks). This is a new project with the populated budget, but there are no transactions yet.

Creating a Subcontract

To enter a subcontract for the vendor, do the following:

1. Open the Subcontracts (SC301000) form and click **Add New Record** on the form toolbar.
2. In the Summary area, specify the following settings:
 - **Vendor:** *HVACCO*
 - **Description:** *HVAC sub*
3. On the **Document Details** tab, click **Add Row** and populate the subcontract details shown in the following table and in the screenshot below:

Account Group/ Item	Project	Sub Job	Cost Code	Line De- scription	UOM	Ext. Cost	Ac- count
<i>HVAC SUB</i>	<i>HOTEL</i>	<i>15</i>	<i>15-700</i>	Draw 1 - 20%	EA	480,000.00	54200
<i>HVAC SUB</i>	<i>HOTEL</i>	<i>15</i>	<i>15-700</i>	Draw 2 - 50%	EA	720,000.00	54200
<i>HVAC SUB</i>	<i>HOTEL</i>	<i>15</i>	<i>15-700</i>	Draw 3 - 75%	EA	600,000.00	54200

HVAC SUB	HOTEL	15	15-700	Final Draw - Completion	EA	600,000.00	54200
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Subcontracts

SAVE & CLOSE + K X ACTIONS REPORTS

Subcontract Nbr:	SC-000019	* Vendor:	HVACCO - Parker & Sons HVAC	Line Total:	2,160,000.00
Status:	On Hold	Owner:	ADMIN - Tamara M	Discount Total:	0.00
* Date:	12/20/2019	Currency:	USD 1.00	VAT Exempt T...	0.00
Start Date:	12/20/2019	Vendor Ref.:		VAT Taxable T...	0.00
Description:	HVAC sub			Tax Total:	0.00
				Retainage Total:	240,000.00
				Subcontract To...	2,400,000.00

DOCUMENT DETAILS TAX DETAILS VENDOR INFO DISCOUNT DETAILS SC HISTORY PREPAYMENTS CHANGE ORDERS OTHER INFORMATION ATTRIBUTES COMPLIANCE

Branch	Project	Sub Job	Account Group/Item	Cost Code	Line Description	UOM	Order Qty.	Unit Cost	Ext. Cost	Account	Description	Discount Percent	Discount Amount	Manual Discount
> HEADOFFICE	HOTEL	15	HVAC SUB	15-700	Draw 1 - 20%	EA	0.00	0.0000	480,000.00	54200	Project Subco...	0.000000	0.00	<input checked="" type="checkbox"/>
> HEADOFFICE	HOTEL	15	HVAC SUB	15-700	Draw 2 - 50%	EA	0.00	0.0000	720,000.00	54200	Project Subco...	0.000000	0.00	<input checked="" type="checkbox"/>
> HEADOFFICE	HOTEL	15	HVAC SUB	15-700	Draw 3 - 75%	EA	0.00	0.0000	600,000.00	54200	Project Subco...	0.000000	0.00	<input checked="" type="checkbox"/>
> HEADOFFICE	HOTEL	15	HVAC SUB	15-700	Final Draw - Completion	EA	0.00	0.0000	600,000.00	54200	Project Subco...	0.000000	0.00	<input checked="" type="checkbox"/>

4. Review the amounts in the document details in the **Ext. Cost**, **Retainage Amount**, and **Amount** columns. Review the subcontract totals.
5. Clear the **Hold** check box in the Summary area and save the document with the *Open* status.

Processing an AP Bill

To create and pay an AP bill for the vendor, do the following:

1. While you are still on the Subcontracts (SC301000) form, click **Actions > Enter AP Bill** on the form toolbar.
2. On the Bills and Adjustments (AP301000) form that opens, on the **Document Details** tab, enter a bill for 30% of the subcontract, as follows (also shown on the screenshot below):
 - a. Remove lines #3 and #4 from the AP bill.
 - b. In the 2 line, in the **Ext. Cost** column, change the value to 240,000.
3. Review the **Pay by Line** check box in the Summary area of the Bills and Adjustments form.

The check box in the document is inherited from the vendor settings. The check box state can be modified in a document before lines are added to it.

Bills and Adjustments

Type: Bill Vendor: HVACCO - Parker & Sons HVAC Detail Total: 648,000.00

Reference Nbr.: 000074 Terms: 30D - 30 Days Discount Total: 0.00

Status: On Hold Due Date: 1/19/2020 Apply Retainage VAT Taxable Total: 0.00

Hold Cash Discount... 1/19/2020 Pay by Line Joint Payees VAT Exempt Total: 0.00

Date: 12/20/2019 Tax Total: 0.00

Post Period: 12-2019 With. Tax: 0.00

Vendor Ref.: Description: HVAC sub Balance: 648,000.00

Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPROVAL DETAILS RETAINAGE APPLICATIONS COMPLIANCE

DOCUMENT DETAILS		FINANCIAL DETAILS		TAX DETAILS		APPROVAL DETAILS		RETAINAGE		APPLICATIONS		COMPLIANCE	
○	+	⊖	X	VIEW SCHEDULE	ADD PO RECEIPT	ADD PO RECEIPT LINE	ADD PO	ADD PO LINE	ADD SUBCONTRACTS	ADD SUBCONTRACT LINE	ADD LC	LINK LINE	H
Branch	Line Account Nbr. Group/Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Retainage Percent	Retainage Amount	Amount			
HEADOFFICE	1 HVAC SUB	Draw 1 - 20%	0.00	EA	0.0000	480,000.00	0.00	10.000000	48,000.00	432,000.00			
HEADOFFICE	2 HVAC SUB	Draw 2 - 50%	0.00	EA	0.0000	240,000.00	0.00	10.000000	24,000.00	216,000.00			

4. Clear the **Hold** check box.
5. Click **Release** on the form toolbar to release the AP bill.
6. Review the open AP balances of the lines in the **Balance** column on the **Document Details** tab. (The **Balance** column gets populated after the release of the AP bill.)
7. Open the Prepare Payments (AP503000) form and specify the following settings in the Selection area:
 - **Payment Method:** CHECK
 - **Cash Account:** 10200WH
 - **Vendor:** HVACCO
 - **Pay Date Within:** Cleared
8. On the **Documents to Pay** tab, for the second line of the AP bill that you have just created, change the amount in the **Amount Paid** column from 216,000 to 200,000.
9. Select the unlabeled check boxes for both lines, and review the amount in the **Available Balance** box in the Selection area.
10. Click **Process** on the form toolbar.
11. On the Process Payments / Print Checks (AP505000) form, which opens, click **Process**.
12. After the check has been printed, on the Release Payments (AP505200) form, click **Process** on the form toolbar.
13. Open the Bills and Adjustments form, select the AP bill for the HVACCO vendor and review the line-level balances of the AP bill in the **Balance**, **Amount**, and **Unreleased Retainage** boxes.

The bill retains the *Open* status because the open AP balance in the amount of \$16,000 has not yet been paid for the second line, the full amount of the first line has not been paid, and the retainage has not been released and paid.

- 14.** On the **Applications** tab, click the link in the **Reference Nbr.** column to view the payment on the Checks and Payments (AP302000) form.

The information on how much has been paid (the **Amount Paid** column) for each line of the AP bill is displayed for the AP payment on the **Application History** tab of the Checks and Payments form.

Reviewing Retainage Details

To review the retainage details of the processed AP bill, do the following:

- 1.** Open the the AP Aged Past Due (AP631000) form.
- 2.** On the Report Parameters tab, specify the following settings:
 - **Report Format:** *Detailed with Retainage*
 - **Company/Branch:** *HEADOFFICE*
 - **Vendor:** *HVACCO*
- 3.** On the form toolbar, click **Run Report**. In the displayed report, the **Unreleased Retainage** column shows the retainage that is currently held for each of the listed AP bills. Only the open balances of AP bills are aged. Retainage held (unreleased retainage) is never aged.

Releasing the Retainage and Reviewing the Created Bill

To release the retainage at the line level, do the following:

- 1.** Open the Release AP Retainage (AP510000) form.
- 2.** In the Selection area, specify the following settings:

- **Vendor:** *HVACCO*
- **Show Lines with Open Balances:** Selected

With this check box selected, the system displays all lines of AP documents that have non-zero unreleased retainage balances on the form.

- 3.** For the lines that are shown in the table, enter the following amounts in the **Retainage to Release** column, as shown on the screenshot below:
 - Line 1: 4,800.00
 - Line 2: 2,400.00

The screenshot shows the 'Release AP Retainage' form. At the top, there are search fields and a toolbar with buttons for 'PROCESS' and 'PROCESS ALL'. Below the toolbar, there are filter options for 'Branch', 'Date', 'Ref. Nbr.', and a checkbox for 'Show Lines with Open Balance'. The main area is a table with columns: Branch, Type, Reference Nbr., Vendor, Line Nbr., Percent to Release, Retainage to Release, Unreleased Retainage, Date, Total Amount, Project, and Description. Two rows are visible: one for 'HEADOFFICE' with Reference Nbr. 000047 and another for 'HEADOFFICE' with Reference Nbr. 000047. The second row is highlighted with a red circle around the 'Type' column.

- In the table, select both lines and click **Process** on the form toolbar to release the retainage bill.

Each line of the retainage bill has the project, project task, and cost code information copied from the original AP bill. After release, the retainage bill becomes open, and payments have to be applied to it to close its open AP balance as for a regular bill (see the screenshot below). If the original AP bill was created with the **Pay by Line** check box selected, the retainage AP bill is also processed at the line level.

- On the Bills and Adjustments (AP301000) form, open the retainage bill.

The screenshot shows the 'Bills and Adjustments' form. At the top, there are buttons for 'SAVE & CLOSE', 'RELEASE', and 'INQUIRIES'. The main area has sections for 'DOCUMENT DETAILS', 'FINANCIAL DETAILS', 'TAX DETAILS', 'APPLICATIONS', and 'COMPLIANCE'. In the 'DOCUMENT DETAILS' section, fields include 'Type: Bill', 'Reference Nbr.: 000050', 'Status: On Hold', 'Date: 10/11/2019', 'Post Period: 10-2019', 'Vendor Ref.', and 'Description: HVAC sub'. To the right, financial details show 'Detail Total: 7,200.00', 'Discount Total: 0.00', 'VAT Taxable Total: 0.00', 'VAT Exempt Total: 0.00', 'Tax Total: 0.00', 'With. Tax: 0.00', 'Balance: 7,200.00', and 'Cash Discount: 0.00'. Below these are tabs for 'VIEW SCHEDULE', 'ADD PO RECEIPT', 'ADD PO RECEIPT LINE', 'ADD PO', 'ADD SUBCONTRACTS', 'ADD PO LINE', 'ADD SUBCONTRACT LINE', 'ADD LC', and 'LINK LINE'. The 'ADD PO RECEIPT LINE' tab is active, showing a table with columns: Line Nbr., Account Group/Item, Transaction Descr., Quantity, UOM, Unit Cost, Ext. Cost, Discount Amount, Amount, Balance, and Account. Two lines are listed: line 1 for 'HEADOFFICE' with 'Retainage for Bill 000047' and line 2 for 'HEADOFFICE' with 'Retainage for Bill 000047'. The second line is highlighted with a red circle around the 'Line Nbr.' column.

Paying the Retainage Bill

To pay the retainage bill, do the following:

- While you are still on the Bills and Adjustments (AP301000) form with the retainage bill open, clear the **Hold** check box, and release the bill.

2. Click **Actions > Pay Bill/Apply Adjustment** on the form toolbar.
3. On the Checks and Payments (AP302000) form that opens, specify 4000 in the **Amount Paid** box (partial payment).
4. On the **Documents to Apply** tab, remove Line 2 of the bill.
5. In Line 1, in the **Amount Paid** box, enter 4000.
6. In the Summary area, clear the **Hold** check box.
7. On the form toolbar, click **Actions > Print Check** and on the Process Payments / Print Checks (AP505000) form that opens, click **Process**.
8. On the Release Payments (AP505200) form that opens, click **Process**.
9. On the Bills and Adjustments form, open the retainage bill and review the remaining \$800 open AP balance in the first line, as shown on the following screenshot.

Line Nbr.	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	Tax
1	Retainage for Bill 000047	0.00		0.0000	4,800.00	0.00	4,800.00	800.00	
2	Retainage for Bill 000047	0.00		0.0000	2,400.00	0.00	2,400.00	2,400.00	

On the **Financial Details** tab, you can find a reference to the original AP bill from which this retainage bill has been created. On the original AP bill, the amounts are presented at the line level. For the second line, the following settings shown on the screenshot below are specified:

- **Ext. Cost** is the original amount that includes retainage (\$240,000).
- **Retainage Amount** is the original retainage amount of the line (\$24,000).
- **Amount** is the original amount of the line less retainage: (Ext. Cost - Retainage Amount = \$240,000 - \$24,000 = \$216,000.) This amount becomes the open AP balance of the line.

- **Balance** is the current open AP balance of the line: (Balance = Amount - Payments (the total amount of payments applied to the line)) = \$216,000 - \$200,000 = \$16,000.)
- **Unreleased Retainage** (balance) is the retainage currently held for the line: (Unreleased Retainage = Retainage Amount - Released Retainage = \$24,000 - \$2,400 = \$21,600.)

Bills and Adjustments

Reference Nbr.	TERMS:	DISCOUNT TOTAL:
0000047	30D + 30 Days	0.00
Status: Open	* Due Date: 11/10/2019	<input checked="" type="checkbox"/> Apply Retainage
<input type="checkbox"/> Hold	* Cash Discount... 11/10/2019	VAT Taxable Total: 0.00
Date: 10/11/2019	<input type="checkbox"/> Joint Payees	VAT Exempt Total: 0.00
Post Period: 10-2019		Tax Total: 0.00
Vendor Ref.:		With. Tax: 0.00
Description: HVAC sub		Balance: 16,000.00
		Amount: 648,000.00
		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS RETAINAGE APPLICATIONS COMPLIANCE

Itty	UOM	Unit Cost	Ext. Cost	Discount Amount	Retainage Percent	Retainage Amount	Unreleased Retainage	Retained Tax	Amount	Balance
00	EA	0.0000	480,000.00	0.00	10.000000	48,000.00	43,200.00	0.00	432,000.00	0.00
00	EA	0.0000	240,000.00	0.00	10.000000	24,000.00	21,600.00	0.00	216,000.00	16,000.00

Paying the Outstanding Balance of the AP Bill

1. Open the Subcontracts (SC301000) form.
2. In the **Subcontract Nbr.** box, select the subcontract for the HVACCO vendor created earlier.
3. On the **SC History** tab, click the link in the **Reference Nbr.** column to open the AP bill associated with the subcontract.
4. On the Bills and Adjustments (AP301000) form that opens, click **Pay Bill/Apply Adjustment**.
5. On the Checks and Payments (AP302000) form that opens, pay the outstanding balance of the AP bill (\$16,000.00) and release the AP payment.

Notice that the AP bill retains the *Open* status until the full amount of retainage is released (that is, the amount is moved from the non-current retainage asset account to the AR account), and the retainage AP bill is paid. After that the original AP retainage bill gets the *Closed* status.

The following sections are provided for reference and not required for completing this training.

Importing Open AP Bills

You can import open AP bills by doing the following:

1. On the Accounts Payable Preferences (AP101000) form, make sure that the **Activate Migration Mode** check box is cleared.

NOTE: This mode does not support the import of documents with open retainage balances.

2. On the Bills and Adjustments (AP301000) form, for each open original bill, specify AP **open balance** and **unreleased retainage** (instead of the original amounts) and release the bill.

After that vendor balances and retained balances will be correct in the AP subledger.

3. On the Trial Balance (GL303010) form, upload trial balances in the GL subledger, no need to reverse batches posted by the AP subledger.

Enabling Retained Taxes

A tax amount calculated on the retainage amount can be posted to a separate GL account instead of the Tax Claimable account if the tax amount has to be retained along with the respective retainage amount of the bill.

To enable retained taxes, you do the following:

1. Open the Accounts Payable Preferences (AP101000) form.
2. In the **Retainage Settings** section on the **General Settings** tab, select the **Retain Taxes** check box.

Functionality Restrictions in Bills with AP Balance and Retainage at the Line Level

- The migration mode option on the Accounts Payable Preferences (AP101000) form. The feature is not compatible with the migration mode. If the **Activate Migration Mode** check box is selected, the **Pay by Line** check box on data entry forms is disabled for editing, and there is no way to specify line balances and unreleased retainage balances in AP documents.
- Group and document discounts are not supported in bills with AP balances at the line level with or without retainage.
- Some types of taxes, in particular, *Withholding* and *VAT* recalculated on cash discounts are not supported.
- Negative line amounts in bills are not supported.
- Bills in foreign currency are not supported if they are with retainage. Bills with AP balance at the line level without retainage support foreign currencies.
- Calculation of taxes via Avalara integration is not supported.

- The *Invoice Rounding* feature is not supported.
- It is not possible to apply existing open debit adjustments on the **Applications** tab of the Bills and Adjustments (AP301000) form to a bill with AP balance and retainage at the line level.
- Multiple installment credit terms are not supported for bills with retainage.
- Editing of retained tax amount for inclusive taxes - that is, VAT and sales taxes that use the *Extract from Item Amount* calculation method is not supported.

Lesson 6: Joint Payees

A joint check is a check generated for an accounts payable bill that includes joint payees. This check is used for making a payment jointly to two or more parties. A joint check is used as a guarantee that the funds associated with the material or work provided to a contractor (subcontractor or general contractor) on a project are paid to a vendor that is not an active member of the project team.

Learning Objectives

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

- Specify joint payees for an accounts payable bill
- Specify joint amounts for different lines of an accounts payable bill
- Create joint checks and process the payments

Story

Suppose that a storm broke windows in the hotel that the SweetLife company is building. The company needs to replace the broken windows and clean the area. The Acme Doors & Glass vendor will do the job for the SweetLife company. Also, they subcontracted the OfficeUp Original and Conwaste company to dispose of any waste and clean the area.

At the end, SweetLife needs to issue and print a joint check that reflects the joint payment amounts.

System Preparation

Sign in as a project manager by using the *owen* login and the *123* password.

Reviewing the Configuration Settings

Review the configuration settings as follows:

1. On the Enable/Disable Features (CS100000) form, make sure that the *Payment Application by Line* feature is enabled.

Enable/Disable Features ★

⟲ MODIFY ENABLE

<input type="checkbox"/> Invoice Rounding
<input checked="" type="checkbox"/> Expense Management
<input checked="" type="checkbox"/> Advanced Financials
<input type="checkbox"/> Subaccounts
<input type="checkbox"/> General Ledger Allocation Templates
<input checked="" type="checkbox"/> Inter-Branch Transactions
<input type="checkbox"/> Multiple Calendar Support
<input type="checkbox"/> General Ledger Consolidation
<input type="checkbox"/> Translation of Financial Statements
<input type="checkbox"/> Customer Discounts
<input type="checkbox"/> Vendor Discounts
<input type="checkbox"/> Commissions
<input type="checkbox"/> Overdue Charges
<input type="checkbox"/> Dunning Letter Management
<input type="checkbox"/> Deferred Revenue Management
<input type="checkbox"/> Revenue Recognition by IFRS 15/ASC 606
<input type="checkbox"/> Parent-Child Customer Relationship
<input checked="" type="checkbox"/> Retainage Support
<input checked="" type="checkbox"/> Payment Application by Line
<input type="checkbox"/> Contract Management
<input type="checkbox"/> Fixed Asset Management
<input checked="" type="checkbox"/> Monitoring & Automation
<input checked="" type="checkbox"/> Time Reporting on Activity

2. On the **Payment Settings** tab of the Vendors (AP303000) form, make sure that the **Pay by Line** check box is selected for the *DOORSCO* vendor.

Vendors

* Vendor ID: DOORSCO * Status: Active Balance: 0.00

* Vendor Name: Acme Doors & Glass Prepayment Balance: 0.00

Retained Balance: 0.00

GENERAL INFO **PAYMENT SETTINGS** **PURCHASE SETTINGS** **CONTACTS** **ATTRIBUTES** **ACTIVITIES** **GL ACCOUNTS**

REMITTANCE CONTACT

Same as Main

Company Name: Acme Doors & Glass

Attention:

Phone 1:

Phone 2:

Fax:

Email: 

Web: 

REMITTANCE ADDRESS

Same as Main

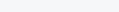
Address Line 1:

Address Line 2:

City:

Country: US - United States of America

State:

Postal Code: 

DEFAULT PAYMENT SETTINGS

Payment Method: CHECK - Check Payment 

Cash Account: 

Payment By: Due Date 

Payment Lead Time (D...): 0

Pay Separately

Pay by Line 

Prepayment Percent: 100.000000

Payment Instructions

Description	Value

Preparing and Processing Joint Payments

Do the following:

1. Open the Bills and Adjustments (AP301000) form, click **Add New Record**.
 2. In the **Vendor** box, select *DOORS CO - Acme Doors & Glass*.
 3. Select the **Joint Payees** check box.
 4. In the **Description** box, type Replacing broken windows after the storm.

Bills and Adjustments

Bill		DOORSCO - Acme Doors & Glass		Detail Total:	0.00
Type:	Bill	* Vendor:	DOORSCO - Acme Doors & Glass	Discount Total:	0.00
Reference Nbr.:	<NEW>	* Terms:	30D - 30 Days	VAT Taxable Total:	0.00
Status:	On Hold	* Due Date:	1/4/2020	VAT Exempt Total:	0.00
	<input checked="" type="checkbox"/> Hold	* Cash Discount:	1/4/2020	Tax Total:	0.00
* Date:	12/5/2019	<input checked="" type="checkbox"/> Apply Retainage		With. Tax:	0.00
* Post Period:	12-2019	<input checked="" type="checkbox"/> Pay by Line	<input checked="" type="checkbox"/> Joint Payees	Balance:	0.00
Vendor Ref.:				Cash Discount:	0.00
Description:	Replacing broken windows after storm				

5. On the **Document Details** tab, add lines with the settings specified in the table below.

Account Group/ Item	Quantity	Unit Cost	Project	Sub Job	Cost Code
WINDISMNTL	8	500.00	HOTEL	02	02-000
WINDISPOSE	4	200.00	HOTEL	02	02-000
WINCLEAN	4	100.00	HOTEL	02	02-000

6. On the **Joint Payees** tab, add lines with the settings specified in the table below.

Joint Payee (Vendor)	Joint Payee	Bill Line Nbr.	Joint Amount Owed
	Conwaste	2	400.00
OFFICEUP		3	200.00

DOCUMENT DETAILS	FINANCIAL DETAILS	TAX DETAILS	RETAINAGE	APPLICATIONS	JOINT PAYEES	JOINT AMOUNT APPLICATION	COMPLIANCE
↻ + × ADJUST JOINT AMOUNTS [H] [X]							
Joint Payee (Vendor)	Joint Payee		* Bill Line Nbr.	Bill Line Amount	* Joint Amount Owed	Joint Amount Paid	Joint Balance
	Conwaste		2	800.00	400.00	0.00	400.00
> OFFICEUP - OfficeUp Original			3	400.00	200.00	0.00	200.00

In the **Bill Line Nbr.** column, you specify the number of the bill line that corresponds to the item for which the joint payee is to receive the payment. The **Balance** of the line, which you can review on the **Document Details** tab, will be reduced by the amount specified in the **Joint Amount Paid** column when the payment is released. If the

Pay by Line check box on the **Financial Details** tab is cleared for the bill, the **Joint Amount Paid** affects the balance of the entire bill.

On the **Joint Payees** tab, you can specify a joint payee in any of the following ways:

- If the joint payee is registered in your system as a vendor, you can select that vendor in the **Joint Payee (Vendor)** column.
- If there is no vendor record that corresponds to the joint payee, you can simply type the name in the text box in the **Joint Payee** column.

Note that the sum of the joint amounts must not be greater than or equal to the total amount of the bill. At first, the joint balance for each line equals the joint amount owed. Partial payments may be applied to the lines, and as a result, the joint balance would decrease until it is completely paid and thus reduced to zero.

7. Clear the **Hold** check box in the Summary area of the form.
8. Click **Release** on the form toolbar.
9. On the form toolbar, click **Actions > Pay Bill/Apply Adjustment**.

The **Indicate Amounts to Pay** dialog box opens.

10. In the dialog box, do the following:

- a. In the **Amount to Pay** box, enter 400.

This amount defines the part of the payment that the *Acme Doors & Glass* vendor is going to receive. This amount cannot be greater than the amount displayed in the **Max Available Amount** box.

- b. In the **Joint Amount to Pay** column of the table below, enter 200 for the *Conwaste* joint payee and 100 for the *OFFICEUP* joint payee.
- c. Click **Confirm**.

Indicate Amounts to Pay					
Vendor:	DOORSCO - Acme Doors & C	Amount To Pay:	400.00	Max Available Amount:	4,600.00
<input checked="" type="checkbox"/>	Joint Payee (Vendor)	Joint Payee	Bill Line Nbr.	Joint Amount To Pay	Joint Balance
<input type="checkbox"/>		Conwaste	2	200.00	400.00
<input type="checkbox"/>		OFFICEUP - OfficeUp Original	3	100.00	200.00

As a result, three joint checks are created:

- A check for 400 USD, which is the vendor payment amount

Checks and Payments

SAVE & CLOSE ACTIONS INQUIRIES REPORTS

Type: <input type="button" value="Check"/>	Vendor: DOORSOC - Acme Doors & Glass	Payment Amount: 400.00	Vendor Payment Amount: 400.00
Reference Nbr.: 000037	* Payment Method: CHECK	Unapplied Balance: 0.00	Joint Payment Amount: 0.00
Status: On Hold	* Cash Account: 10200WH - Wholesale Checking	Application Amount: 400.00	
<input checked="" type="checkbox"/> Hold	<input checked="" type="checkbox"/> Joint Check	Finance Charges: 0.00	
* Application Date: 12/5/2019	Description: Replacing broken windows after storm		
* Application Period: 12-2019			
Payment Ref:			

DOCUMENTS TO APPLY APPLICATION HISTORY FINANCIAL DETAILS REMITTANCE INFORMATION FINANCE CHARGES **JOINT PAYEES** COMPLIANCE

Joint Payee (Vendor)	Joint Payee	* Joint Amount To Pay	Joint Balance	Joint Amount Paid	Joint Amount Owed	AP Bill Nbr.	AP Bill Line Nbr.
> Conwaste		0.00	400.00	0.00	400.00	000061	2
OFFICEUP - OfficeUp Original		0.00	200.00	0.00	200.00	000061	3

- A check for 200 USD, which is the joint payment amount for the *Conwaste* joint payee

Checks and Payments

SAVE & CLOSE ACTIONS INQUIRIES REPORTS

Type: <input type="button" value="Check"/>	Vendor: DOORSOC - Acme Doors & Glass	Payment Amount: 200.00	Vendor Payment Amount: 0.00
Reference Nbr.: 000038	* Payment Method: CHECK	Unapplied Balance: 0.00	Joint Payment Amount: 200.00
Status: On Hold	* Cash Account: 10200WH - Wholesale Checking	Application Amount: 200.00	
<input checked="" type="checkbox"/> Hold	<input checked="" type="checkbox"/> Joint Check	Finance Charges: 0.00	
* Application Date: 12/5/2019	Description: Replacing broken windows after storm		
* Application Period: 12-2019			
Payment Ref:			

DOCUMENTS TO APPLY APPLICATION HISTORY FINANCIAL DETAILS REMITTANCE INFORMATION FINANCE CHARGES **JOINT PAYEES** COMPLIANCE

Joint Payee (Vendor)	Joint Payee	* Joint Amount To Pay	Joint Balance	Joint Amount Paid	Joint Amount Owed	AP Bill Nbr.	AP Bill Line Nbr.
> Conwaste		200.00	400.00	0.00	400.00	000061	2

- And a check for 100 USD, which is the joint payment amount for the *OFFICEUP* joint payee

Checks and Payments

SAVE & CLOSE ACTIONS INQUIRIES REPORTS

Type: <input type="button" value="Check"/>	Vendor: DOORSOC - Acme Doors & Glass	Payment Amount: 100.00	Vendor Payment Amount: 0.00
Reference Nbr.: 000039	* Payment Method: CHECK	Unapplied Balance: 0.00	Joint Payment Amount: 100.00
Status: On Hold	* Cash Account: 10200WH - Wholesale Checking	Application Amount: 100.00	
<input checked="" type="checkbox"/> Hold	<input checked="" type="checkbox"/> Joint Check	Finance Charges: 0.00	
* Application Date: 12/5/2019	Description: Replacing broken windows after storm		
* Application Period: 12-2019			
Payment Ref:			

DOCUMENTS TO APPLY APPLICATION HISTORY FINANCIAL DETAILS REMITTANCE INFORMATION FINANCE CHARGES **JOINT PAYEES** COMPLIANCE

Joint Payee (Vendor)	Joint Payee	* Joint Amount To Pay	Joint Balance	Joint Amount Paid	Joint Amount Owed	AP Bill Nbr.	AP Bill Line Nbr.
> OFFICEUP - OfficeUp Original		100.00	200.00	0.00	200.00	000061	3

11. On the Checks and Payments (AP302000) form, open each check and clear the **Hold** check box and save the changes.

12. On the Process Payments/Print Checks (AP505000) form, do the following:

- In the **Payment Method** box, select **CHECK**.
- Select the unlabeled check box for each of the joint checks and click **Process** on the form toolbar to print the checks.

Process Payments / Print Checks ☆

Process Payments / Print Checks						
* Payment Method:		CHECK	GL Balance:	9,562,176.67		
* Cash Account:		10200WH - Wholesale Check	Available Balance:	9,562,176.67		
Next Check Number:		0026	Selection Total:	700.00		
			Number of Payments:	3		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Payment Ref.	Payment Date	Type	Reference Nbr.
>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	00037	12/5/2019	Check	DOORS CO
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	00038	12/5/2019	Check	Acme Doors & Glass
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	00039	12/5/2019	Check	DOORS CO
						400.00
						200.00
						100.00

The form that is used to print check is opened. For learning purposes, you do not need to print the checks so you can close the form.

13. On the Release Payments (AP505200) form, which opens, release the payments by clicking **Process** on the form toolbar.

Note that the unlabeled check boxes are selected automatically for the corresponding payments.

Release Payments ☆

Release Payments						
* Payment Method:		CHECK	GL Balance:	9,511,926.67		
* Cash Account:		10200WH - Wholesale Check	Available Balance:	9,511,926.67		
Action:		Release				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Payment Ref.	Payment Date	Type	Reference Nbr.
>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0026	12/5/2019	Check	DOORS CO
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0027	12/5/2019	Check	Acme Doors & Glass
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0028	12/5/2019	Check	DOORS CO
						400.00
						200.00
						100.00

Lesson 7: Sales Taxes in Purchase Orders and Subcontracts

A sales tax is a tax paid by a company to its vendors as a part of an AP bill amount. When the company pays the accumulated tax amounts to the responsible tax agency, the tax amounts is reduced by the amount of sales tax paid to the vendors.

Learning Objectives

In this lesson, you will do the following:

- Learn how to configure a sales tax
- Learn how to create an AP bill with a sales tax applied
- Release the AP bill and review the GL batch generated by the system

Story

Suppose that your company purchases 500 packages of a concrete mix from the Concrete Supply Co. vendor. The vendor is located in the New York state and the NY sales tax has to be applied to this purchase. Acting as the company accountant, you need to enter the AP bill, release it and review how the system calculates the sales tax.

System Preparation

Sign in to the system by using the *owen* login and *123* password.

Creating and Configuring a Sales Tax

On the Taxes (TX205000) form, create and configure a sales tax for the New York state by doing the following:

1. On the **Tax Settings** tab, specify the following settings:

- **Tax ID:** NYSALESTAX
- **Description:** New York sales tax
- **Tax Type:** *Sales*

Taxes

← SAVE & CLOSE ⌂ + ⌂ K ⌂ < ⌂ > ⌂ I

TAX SETTINGS GL ACCOUNTS

* Tax ID:	NYSALESTAX	<input type="text"/>
Description:	New York sales tax	<input type="text"/>
Tax Type:	Sales	<input type="button" value="▼"/>
<input type="checkbox"/> Partially Deductible VAT <input type="checkbox"/> Reverse VAT <input type="checkbox"/> Pending VAT <input type="checkbox"/> Statistical VAT <input type="checkbox"/> Enter from Tax Bill <input type="checkbox"/> Include in VAT Exempt Total <input type="checkbox"/> Include in VAT Taxable Total		
Calculate On:	Calc. On Document Amount	
Cash Discount:	Does Not Affect Taxable Amount	
<input type="checkbox"/> Exclude from Tax-on-Tax Calculation		
Tax Agency:	<input type="text"/>	
Not Valid After:	<input type="button" value="▼"/>	

TAX SCHEDULE CATEGORIES ZONES

↻ + × ⌂ ⌂ ⌂

Start Date	Tax Rate	Min. Taxable Amount	Max. Taxable Amount	Reportin Group	Group Type
Start Date	Tax Rate	Min. Taxable Amount	Max. Taxable Amount	Reportin Group	Group Type

2. On the **GL Accounts** tab, specify the following settings:

- **Tax Payable Account:** 24100 - Tax Payable

- **Tax Expense Account:** 69000 - Tax Expenses

The *Tax Expenses* account (69000) is included in the *MATERIAL* account group so that tax expenses are posted to the project specified for the AP document lines.

Note that the **Use Tax Expense Account** check box is selected and non-editable because the *Sales* tax type has been selected on the **Tax Settings** tab.

3. On the **Tax Schedule** tab, specify the following settings:

- **Start Date:** 1/1/2019
- **Tax Rate:** 8.875
- **Reporting Group:** Default Input Group

Leave the default values in the remaining columns.

Note that reporting group can have one of the following types:

- An *Output* group is specified for a tax that must be paid to a tax agency.
- An *Input* group is specified for a tax that can be claimed from a tax agency.

Taxes

The screenshot shows the 'Taxes' setup screen. At the top, there are navigation icons: back, forward, search, and tabs for 'TAX SETTINGS' and 'GL ACCOUNTS'. The 'GL ACCOUNTS' tab is selected, showing fields for Tax Payable Account (24100 - Tax Payable), Pending Tax Payable Account, Tax Claimable Account, Pending Tax Claimable Account, Tax Expense Account (69000 - Tax Expenses), and Retainage Tax Payable Account. Below this, the 'TAX SCHEDULE' tab is selected, showing a table with columns: Start Date, Tax Rate, Min. Taxable Amount, Max. Taxable Amount, Reportir Group, and Group Type. A single row is present with the values: 1/1/2019, 8.875000, 0.0000, 0.0000, Default Inp, and Input.

Start Date	Tax Rate	Min. Taxable Amount	Max. Taxable Amount	Reportir Group	Group Type
1/1/2019	8.875000	0.0000	0.0000	Default Inp	Input

4. On the **Categories** tab, include the tax in the *TAXABLE* tax category by adding this tax category to the table.

5. On the **Zones** tab, include the tax in the *NYSTATE* tax zone by adding this tax zone to the table.

Creating and Releasing an AP Bill with a Sales Tax

On the Bills and Adjustments (AP301000) form, start creating a new bill. Do the following:

1. In the Summary area, specify the following settings:
 - **Type:** Bill
 - **Vendor:** CONCRESUP
 - **Description:** Concrete mix
 2. On the **Document Details** tab, add a detail line with the following settings:

- **Branch:** HEADOFFICE
- **Account Group/Item:** MATERIAL
- **Transaction Descr.:** Concrete mix
- **Quantity:** 500
- **Unit Cost:** 85
- **Project:** HOTEL
- **Sub Job:** 02 - SITEWORK
- **Cost Code:** 02-000
- **Tax Category:** TAXABLE

Bills and Adjustments

Type: Bill	Vendor: CONCRESUP - Concrete Supply Co.	Detail Total: 42,500.00
Reference Nbr: <NEW>	* Terms: 30D - 30 Days	Discount Total: 0.00
Status: On Hold	* Due Date: 1/19/2020	VAT Taxable Total: 0.00
	* Cash Discount: 1/19/2020	Apply Retainage Pay by Line Joint Payees
* Date: 12/20/2019		VAT Exempt Total: 0.00
* Post Period: 12-2019		Tax Total: 3,771.88
Vendor Ref:		With Tax: 0.00
Description:		Balance: 46,271.88
		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPLICATIONS COMPLIANCE

Branch	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	Account	Description	* Project	Sub Job	Cost Code
HEADOFFICE	MATERIAL	Concrete mix	500.00	EA	85.0000	42,500.00	0.00	42,500.00	0.00	54500	Project Material Expense	HOTEL	02	02-000

3. On the **Tax Details** tab, review the details of the applied sales tax.

For the bill line, you selected the **TAXABLE** category that contains the **NYSALESTAX** tax that has been applied to the bill. The taxable amount is \$42500.00 and the calculated total tax is \$3771.88.

Bills and Adjustments

Type: Bill	Vendor: CONCRESUP - Concrete Supply Co.	Detail Total: 42,500.00
Reference Nbr: <NEW>	* Terms: 30D - 30 Days	Discount Total: 0.00
Status: On Hold	* Due Date: 1/19/2020	VAT Taxable Total: 0.00
<input checked="" type="checkbox"/> Hold	* Cash Discount: 1/19/2020	Apply Retainage Pay by Line Joint Payees
* Date: 12/20/2019		VAT Exempt Total: 0.00
* Post Period: 12-2019		Tax Total: 3,771.88
Vendor Ref:		With Tax: 0.00
Description:		Balance: 46,271.88
		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPLICATIONS COMPLIANCE

*TAX ID Tax Rate Taxable Amount Tax Amount Deductible Tax Rate Expense Amount

NYSALESTAX	8.875000	42,500.00	3,771.88	100.000000	0.00
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4. Clear the **Hold** check box in the Summary area and click **Release** on the form toolbar to release the bill.

Reviewing the GL Batch and Project Transactions Generated on Bill Release

1. While still on the Bills and Adjustments (AP301000) form, on the **Financial Details** tab, click the **Batch Nbr.** link.

Bills and Adjustments

The screenshot shows the Bills and Adjustments (AP301000) form. The top section displays bill details: Type: Bill, Vendor: CONCRESUP - Concrete Supply Co., Detail Total: 42,500.00, Reference Nbr: 000066, Terms: 30D - 30 Days, Status: Open, * Due Date: 1/19/2020, * Cash Discount: 1/19/2020, Pay by Line: checked, Joint Payees: checked. Below this is a summary table with columns for VAT Taxable Total, VAT Exempt Total, Tax Total, With. Tax, Balance, Amount, and Cash Discount. The bottom section contains tabs for DOCUMENT DETAILS, FINANCIAL DETAILS (which is selected), TAX DETAILS, APPLICATIONS, and COMPLIANCE. Under FINANCIAL DETAILS, there are sections for LINK TO GL (Batch Nbr: AP000088, Branch: HEADOFFICE - SweetLife Head Office at, AP Account: 20000 - Accounts Payable, Original Document:), TAX (Vendor Tax Zone: NYSTATE - NY State Tax, ASSIGNED TO: Workgroup ID: EP00000001 - Pam Brawner), and DEFAULT PAYMENT INFO (Pay Separately: checked, Approved for Payment: checked, * Pay Date: 1/19/2020, Payment Method: CHECK - Check Payment, Cash Account: 10200WH - Wholesale Checking).

2. On the Journal Transactions (GL301000) form that opens, review the batch that was generated on release of the bill. Note the following:

- The *Accounts Payable* account of the vendor (20000) is credited in the total amount of the bill (the total of the line plus the total of the calculated tax).
- The *Project Material Expense* account (54500) is debited in the amount specified in the document line.
- The *Tax Expenses* account specified for the tax (69000) is credited in the calculated tax amount.

The tax expenses have been recorded to the *HOTEL* project and to the *MATERIAL* account group to which the *Tax Expenses* account (69000) belongs.

Journal Transactions

SAVE & CLOSE + RELEASE ACTIONS • REPORTS •

Module: AP	Branch: HEADOFFICE - SweetLife Head Office at	Type: Normal
Batch Number: AP000088	Ledger: ACTUAL - Actual Ledger	Orig. Batch Number:
Status: Posted	<input type="checkbox"/> Auto Reversing	<input type="checkbox"/> Reversing Entry
	Debit Total:	46,271.88
	Credit Total:	46,271.88
Transaction D: 12/20/2019		
Post Period: 12-2019		
Description:		

#	Branch	Account	Description	Project/Contract	Project Task	Cost Code	Ref. Number	Transaction Date	Quantity	UOM	Debit Amount	Credit Amount	Transaction Description	Non Billable
>	<input type="checkbox"/> HEADOFFICE	20000	Accounts Payable	X		00-000	000066	12/20/2019	0.00		0.00	46,271.88		<input checked="" type="checkbox"/>
	<input type="checkbox"/> HEADOFFICE	54500	Project Material Expense	HOTEL	02	02-000	000066	12/20/2019	500.00	EA	42,500.00	0.00	Concrete mix	<input type="checkbox"/>
	<input type="checkbox"/> HEADOFFICE	69000	Tax Expenses	HOTEL	02	02-000	000066	12/20/2019	500.00	EA	3,771.88	0.00	NYSALESTAX	<input type="checkbox"/>

Lesson 8: Budget Control Warnings and Inquiry

In Acumatica ERP Construction Edition, you can enable budget control for construction projects. When this functionality is turned on, the system displays warnings if the project budget is getting overrun.

The overbudget warnings are displayed for the following types of documents:

- Subcontracts
- Purchase orders
- Commitment change orders
- AP bills

You can see the list of all document lines that exceed the budget of a selected project on the Project Budget Overruns (PM404000) form.

Acumatica ERP Construction Edition helps you to ensure that documents are entered against the existing project budget lines as follows:

- When a user clicks the magnifier icon in the **Cost Code** column for a document line, in the popup window, which opens, the system displays only the cost codes that exist in the project budget for the specified combination of a project task (subjob) and an account group.
- If a user enters in a document line a cost code that does not exist in the project budget for the specified combination of a project task (subjob) and an account group, a warning is displayed.

Learning Objectives

In this lesson, you will learn the following:

- How to turn on budget control in Acumatica ERP
- What warnings the system displays on document entry if a document line starts exceeding the project budget
- What warning the system displays if a cost code entered in a document line does not exist in the project budget for the combination of a project task (subjob) and an account group selected in that document line.

System Preparation

Sign in as an administrator by using the *owen* login and the *123* password.

Enabling Budget Control

To enable the budget control functionality for Projects, do the following:

1. On the Projects Preferences (PM101000) form, in the **General Settings** section on the **General Settings** tab, select *Show a Warning* in the **Budget Control** box.
2. Save your changes.

Reviewing Initial Cost Budget

Do the following:

1. On the Projects (PM301000) form, open the **ITALIAN** project.
2. On the **Cost Budget** tab, review the budget for the mechanical building service.

Notice that there are no budget changes, open commitments, or actuals recorded for this work yet (see the following screenshot).

* Sub Job	Cost Code	* Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
> 0 15	15-100	LABOR	Mech- Building Service Piping	100.00	HOUR	150.0000	15,000.00	0.00	0.00	100.00	15,000.00
0 15	15-100	MATERIAL	Mech- Building Service Piping	1.00	LS	20,000.0000	20,000.00	0.00	0.00	1.00	20,000.00
0 15	15-200	LABOR	Mech- Process Piping	100.00	HOUR	150.0000	15,000.00	0.00	0.00	100.00	15,000.00
0 15	15-200	MATERIAL	Mech- Process Piping	1.00	LS	25,000.0000	25,000.00	0.00	0.00	1.00	25,000.00
0 15	15-300	LABOR	Mech- Fire Protection	100.00	HOUR	150.0000	15,000.00	0.00	0.00	100.00	15,000.00
0 15	15-300	MATERIAL	Mech- Fire Protection	1.00	LS	35,000.0000	35,000.00	0.00	0.00	1.00	35,000.00
0 15	15-400	LABOR	Plumbing- Fixtures and Equipm...	80.00	HOUR	125.0000	10,000.00	0.00	0.00	80.00	10,000.00
0 15	15-400	MATERIAL	Plumbing- Fixtures and Equipm...	1.00	LS	16,750.0000	16,750.00	0.00	0.00	1.00	16,750.00

Recording a Commitment with a Vendor

Suppose that the purchasing agent managed to negotiate a better price with a piping vendor, reserving some budget.

To record this commitment, do the following:

1. On the Subcontracts (SC301000) form, create a new document with the following parameters (see the screenshot below):
 - **Vendor:** INSTCO
 - **Description:** Mechanical
2. On the **Document Details** tab, add to the table two lines as follows:
 - a. In the first line specify the following:

- **Branch:** *HEADOFFICE*
 - **Account Group/Item:** *LABOR*
 - **Project:** *ITALIAN*
 - **Sub Job:** 15
 - **Cost Code:** 15-100
 - **Line Description:** Mech piping
 - **UOM:** *HOUR*
 - **Order Qty:** 100
 - **Unit Cost:** 145
- b.** In the second line, specify the following:
- **Branch:** *HEADOFFICE*
 - **Account Group/Item:** *MATERIAL*
 - **Project:** *ITALIAN*
 - **Sub Job:** 15
 - **Cost Code:** 15-100
 - **Line Description:** Mech piping
 - **UOM:** *LS*
 - **Order Qty:** 1
 - **Unit Cost:** 17000
- 3.** In the Summary area of the form, clear the **Hold** check box.
- 4.** Save your changes.

Branch	Account Group Item	*Project	Sub Job	Cost Code	Line Description	UOM	Order Qty.	Unit Cost	Ext. Cost	Retainage Percent	Retainage Amount	Amount	Discount Percent
HEADOFFICE	LABOR	ITALIAN	15	15-100	Mech piping	HOUR	100.00	145.0000	14,500.00	0.000000	0.00	14,500.00	0.000000
HEADOFFICE	MATERIAL	ITALIAN	15	15-100	Mech piping	LS	1.00	17,000.0000	17,000.00	0.000000	0.00	17,000.00	0.000000

- On the Projects (PM301000) form, open the commitment and review the committed bucket.

Changing the Commitment to Exceed the Budget

The subcontractor started working and it appeared that an extra 20 hours of work is necessary.

To change the commitment, on the Change Orders (PM308000) form, do the following:

- In the Summary area of the form, specify the following settings:
 - Class:** EXT
 - Project:** ITALIAN
 - Description:** Extra work on piping
- On the **Commitments** tab, click **Select Commitments** on the table toolbar, and in the **Select Commitments** dialog box, select the check box for the line with the following attributes:
 - Project Task:** 15
 - Cost Code:** 15-100
 - Inventory ID:** LABOR
- Click **Add Lines & Close** to add the selected line to the change order and close the dialog box.
- In the only row in the table on the **Commitments** tab, change **Quantity** to 20.
- Save the change order.

The screenshot shows the 'Change Orders' screen in a software application. At the top, there are buttons for 'SAVE & CLOSE', 'RELEASE', 'ACTIONS', and 'REPORTS'. Below this is a summary section with fields like 'Customer' (ITALIAN01 - The Italian Company), 'External Reference Nbr.' (0002), and various financial totals. The main area shows a table with columns for 'Job', 'Cost Code', 'Account Group/Item', 'Description', 'Quantity', 'UOM', 'Unit Cost', 'Amount', 'Account', 'Vendor', and 'Commitment Type'. A single row is selected, showing '15-100 LABOR Mech- Building Service Piping'. A yellow callout box highlights the 'Amount' field (2,900.00) and displays a warning message: 'Budgeted: 15000.00, Consumed: 14500.00, Available: 500.00, Document: 2900.00, Remaining: -2400.00'.

Because you have only \$500 of budget and the change exceeds the available budget by \$2400, the overbudget warning is displayed. *Consumed* shows the total of open commitments and already processed actuals.

Creating Another Commitment

Make a copy of the previously created mechanical subcontract as follows:

1. On the Subcontracts (SC301000) form, open the subcontract that you created earlier in this lesson.
2. On the form toolbar, click **Clipboard > Copy**.
3. On the form toolbar, click **Add New Record**.
4. On the form toolbar, click **Clipboard > Paste**.
5. For the new subcontract, in the Summary area of the form, type Mechanical 2 in the **Description** box.

The warning messages are displayed for each of the lines of the subcontract because the budget overrun is now considering the open commitment (that is, the previous subcontract).

The screenshot shows the SAP Subcontracts screen. At the top, there are tabs for NOTES, ACTIVITIES, FILES, NOTIFICATIONS, CUSTOMIZATION, and TOOL. Below the tabs, there are buttons for SAVE & CLOSE, RELOAD, ADD, DELETE, and various navigation icons. The main area displays subcontract details: Subcontract Nbr.: SC-000015, Vendor: INSTCO - Harmon Installation, Owner: KATYA - Katya S, Status: On Hold, Date: 12/2/2019, Start Date: 12/2/2019, Description: Mechanical 2. It also shows financial details: Line Total: 31,500.00, Discount Total: 0.00, VAT Exempt T...: 0.00, VAT Taxable T...: 0.00, Tax Total: 0.00, Retainage Total: 0.00, and a note about Subcontract To...: 31,500.00.

The Document Details tab is selected, showing a table with columns: Branch, Account Group/Item, Project, Sub Job, Cost Code, Line Description, UOM, Order Qty., Unit Cost, Ext. Cost, Retainage Percent, Retainage Amount, and Amount. Two rows are listed: one for LABOR (14,500.00) and one for MATERIAL (17,000.00). A yellow callout box highlights a warning message: "Budgeted: 15000.00, Consumed: 14500.00, Available: 500.00, Document: 14500.00, Remaining: -14000.00".

6. Save the subcontract.

Creating a Vendor Bill

Enter an AP bill as follows:

- On the Bills and Adjustments (AP301000) form, create a new document and specify the following settings in the Summary area:
 - Type:** Bill
 - Vendor:** INSTCO
- On the **Document Details** tab, add a new row with the following details:
 - Account Group/Item:** LABOR
 - Quantity:** 10
 - Unit Cost:** 100
 - Project:** ITALIAN
 - Sub Job:** 15
 - Cost Code:** 15-100

The overbudget warning is displayed. The budget is verified for all documents, including documents with the *On Hold* status.

Bills and Adjustments

Type: Bill Vendor: INSTCO - Harmon Installation Detail Total: 1,000.00

Reference Nbr.: <NEW> * Terms: 30D - 30 Days Discount Total: 0.00

Status: On Hold * Due Date: 1/1/2020 Apply Retainage VAT Taxable Total: 0.00

Hold * Cash Discount... 1/1/2020 Pay by Line Joint Payees VAT Exempt Total: 0.00

* Date: 12/2/2019 Tax Total: 0.00

* Post Period: 12-2019 With. Tax: 0.00

Vendor Ref.: Balance: 1,000.00

Description:

Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPROVAL DETAILS RETAINAGE APPLICATIONS COMPLIANCE

Branch Line Account Transaction Descr. Quantity UOM Unit Cost Ext. Cost Discount Amount Retainage Percent Retainage Amount

HEADOFFICE 1 LABOR Piping 10.00 HOUR 100.0000 1,000.00 0.00 0.000000 0.00

Budgeted: 15000.00, Consumed: 14500.00,
Available: 500.00, Document: 1000.00,
Remaining: -500.00

3. Save the bill.

Viewing Documents Exceeding the Project Budget

To view all documents that exceed the budget, do the following:

1. Open the Project Budget Overruns (PM404000) form.
2. In the Selection area, select the following values:
 - **Project:** ITALIAN
 - **From:** 2/1/2019
 - **To:** Current date
3. In the Selection area, click **Calculate**.

As the following screenshot shows, the system returns the list of document lines that exceed the budget. You can click the **Reference Nbr.** of a document line to open the document for review.

Project Budget Overruns ☆

CUSTOMIZATION TOOLS ▾

CALCULATE 🔍 00:00:01

Document Type: Purchase Order, Subcontract, AP Bill, C ▾ ADDITIONAL FILTERS

* Project: ITALIAN - Italian Restaurant Project 🔍 Account Group:

* From: 2/1/2019 🔍 Project Task:

* To: 12/2/2019 🔍 Cost Code:

Inventory ID: 🔍

Type	Reference Nbr.	Project	Project Task	Cost Code	Inventory ID	Account Group	Budgeted	Consumed	Available	Document	Remaining	Project Currency
> Subcontract	SC-000015	ITALIAN	15	15-100 <N/A>	LABOR	15,000.00	14,500.00	500.00	14,500.00	-14,000.00	USD	
Subcontract	SC-000015	ITALIAN	15	15-100 <N/A>	MATERIAL	20,000.00	17,000.00	3,000.00	17,000.00	-14,000.00	USD	
AP Invoice	000066	ITALIAN	15	15-100 <N/A>	LABOR	15,000.00	14,500.00	500.00	1,000.00	-500.00	USD	
Change Order	000009	ITALIAN	15	15-100 <N/A>	LABOR	15,000.00	14,500.00	500.00	2,900.00	-2,400.00	USD	

Entering a Cost Code Not Existing in the Project Budget

Do the following:

1. On the Projects (PM301000) form, select the *ITALIAN* project.
2. On the **Cost Budget** tab, in the **Project Task** box on the table selection area, select *15*.
3. Review the cost budget lines that the system displays in the table.

Projects

SAVE & CLOSE 🔍 + 🔍 K 🔍 > 🔍 RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

* Project ID: ITALIAN 🔍 * Status: Active Assets: 0.00
Customer: ITALIAN01 - The Italian Company 🔍 Hold Liabilities: 0.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES CHANGE ORDERS CHANGE REQUESTS UNION LOCALS ACTIVITY HISTORY EMPLOYEES EQUIPME

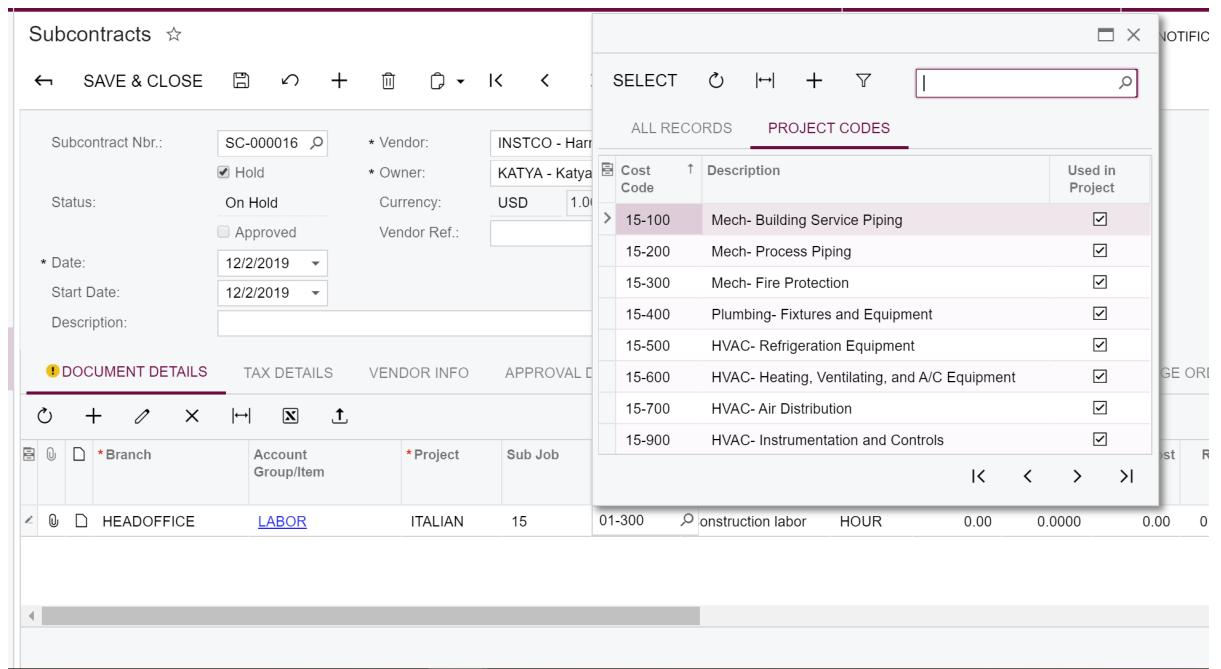
Project Task: 15 🔍 Group by Task

VIEW COMMITMENT DETAILS VIEW TRANSACTIONS 🔍 🔍 🔍

Sub Job	Cost Code	Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Orig Commit Quan
> 0 0 15	15-100	LABOR	Mech- Building Service Piping	100.00	HOUR	150,000.00	15,000.00	0.00	0.00	100.00	15,000.00	0.00	0.00	100.00
0 0 15	15-100	MATERIAL	Mech- Building Service Piping	1.00	LS	20,000.0000	20,000.00	0.00	0.00	1.00	20,000.00	0.00	0.00	1.00
0 0 15	15-200	LABOR	Mech- Process Piping	100.00	HOUR	150,000.00	15,000.00	0.00	0.00	100.00	15,000.00	0.00	0.00	0.00
0 0 15	15-200	MATERIAL	Mech- Process Piping	1.00	LS	25,000.0000	25,000.00	0.00	0.00	1.00	25,000.00	0.00	0.00	0.00
0 0 15	15-300	LABOR	Mech- Fire Protection	100.00	HOUR	150,000.00	15,000.00	0.00	0.00	100.00	15,000.00	0.00	0.00	0.00
0 0 15	15-300	MATERIAL	Mech- Fire Protection	1.00	LS	35,000.0000	35,000.00	0.00	0.00	1.00	35,000.00	0.00	0.00	0.00
0 0 15	15-400	LABOR	Plumbing- Fixtures and Equip...	80.00	HOUR	125,000.00	10,000.00	0.00	0.00	80.00	10,000.00	0.00	0.00	0.00
0 0 15	15-400	MATERIAL	Plumbing- Fixtures and Equip...	1.00	LS	16,750,000.00	16,750.00	0.00	0.00	1.00	16,750.00	0.00	0.00	0.00
0 0 15	15-500	LABOR	HVAC- Refrigeration Equipment	80.00	HOUR	120,000.00	9,600.00	0.00	0.00	80.00	9,600.00	0.00	0.00	0.00
0 0 15	15-500	MATERIAL	HVAC- Refrigeration Equipment	1.00	LS	62,000,000.00	62,000.00	0.00	0.00	1.00	62,000.00	0.00	0.00	0.00
0 0 15	15-600	LABOR	HVAC- Heating, Ventilating, an...	120.00	HOUR	150,000.00	18,000.00	0.00	0.00	120.00	18,000.00	0.00	0.00	0.00
0 0 15	15-600	MATERIAL	HVAC- Heating, Ventilating, an...	1.00	LS	50,000,000.00	50,000.00	0.00	0.00	1.00	50,000.00	0.00	0.00	0.00
0 0 15	15-700	LABOR	HVAC- Air Distribution	80.00	HOUR	150,000.00	12,000.00	0.00	0.00	80.00	12,000.00	0.00	0.00	0.00
0 0 15	15-700	MATERIAL	HVAC- Air Distribution	1.00	LS	25,000,000.00	25,000.00	0.00	0.00	1.00	25,000.00	0.00	0.00	0.00
0 0 15	15-900	LABOR	HVAC- Instrumentation and Co...	40.00	HOUR	120,000.00	4,800.00	0.00	0.00	40.00	4,800.00	0.00	0.00	0.00
0 0 15	15-900	MATERIAL	HVAC- Instrumentation and Co...	1.00	LS	5,000,000.00	5,000.00	0.00	0.00	1.00	5,000.00	0.00	0.00	0.00
0 0 15	15-950	LABOR	HVAC- Testing, Adjusting, and...	40.00	HOUR	75,000.00	3,000.00	0.00	0.00	40.00	3,000.00	0.00	0.00	0.00
0 0 15	15-950	MATERIAL	HVAC- Testing, Adjusting, and...	1.00	LS	3,700,000.00	3,700.00	0.00	0.00	1.00	3,700.00	0.00	0.00	0.00

4. On the Subcontracts (SC301000) form, create a new subcontract.
5. In the Summary area of the form, in the **Vendor** box, select **INSTCO**.
6. On the **Document Details** tab, add a new line with the following parameters:
 - **Account Group/Item:** *LABOR*
 - **Project:** *ITALIAN*
 - **Sub Job:** *15*
7. In the **Cost Code** column, click the magnifier icon.

On the **Project Codes** tab of the lookup box, which opens, the system displays the list of cost codes that are used in the project budget lines with the specified account group and subjob.



8. In the only row of the table, in the **Cost Code** column, type **01-300**.

Notice that the system now displays a warning that the entered cost code is missing from the project budget (see the following screenshot).

Subcontracts ☆

SAVE & CLOSE FILE REDO NEW DELETE REFRESH OK CANCEL PARENT NEXT PREVIOUS ACTIONS REPORTS

Subcontract Nbr.:	SC-000016 🔍	* Vendor:	INSTCO - Harmon Installation 🔍	EDIT	Line Total:	0.00		
<input checked="" type="checkbox"/> Hold		* Owner:	KATYA - Katya S 🔍		Discount Total:	0.00		
Status:	On Hold	Currency:	USD ▼	VIEW BASE	VAT Exempt T...	0.00		
<input type="checkbox"/> Approved		Vendor Ref.:						
* Date:	12/2/2019 ▼							
Start Date:	12/2/2019 ▼							
Description:								
DOCUMENT DETAILS		TAX DETAILS	VENDOR INFO	APPROVAL DETAILS	DISCOUNT DETAILS	SC HISTORY	PREPAYMENTS	
CREATE + EDIT X HIDE DELETE UP								
Branch	Account Group/Item	Project	Sub Job	Cost Code	Line Description	UOM	Order Qty.	Unit Cost
HEADOFFICE	LABOR	ITALIAN	15	01-300 !	Construction labor	HOUR	0.00	0.0000
Cost code is not present in the project budget.								

9. In the **Cost Code** column, type 15-100, and clear the GL account in the **Account** column.

The GL account in the **Account** column determines the account group. The 15-100 cost code is present in the project budget with different account groups, so the system displays no warning at this point.

- 10.** In the **Account Group/Item** column, change the value to *SUBCON*.

Notice that the system has now inserted in the **Account** column the *54200 - Project Subcontract Expense* account that is included in the SUBCON account group. The system now displays the warning message in the **Cost Code** column because this code is not used with the SUBCON account group in the project budget.

Subcontracts

SAVE & CLOSE ACTIONS REPORTS

Subcontract Nbr.:	SC-000016	* Vendor:	INSTCO - Harmon Installation			Line Total:	0.00
<input checked="" type="checkbox"/> Hold	* Owner:	KATYA - Katya S			Discount Total:	0.00	
Status:	On Hold	Currency:	USD	1.00	VAT Exempt T...	0.00	
	<input type="checkbox"/> Approved	Vendor Ref.:			VAT Taxable T...	0.00	
* Date:	12/2/2019	Tax Total:	0.00				
Start Date:	12/2/2019	Retainage Total:	0.00				
Description:					Subcontract To...	0.00	

DOCUMENT DETAILS TAX DETAILS VENDOR INFO APPROVAL DETAILS DISCOUNT DETAILS SC HISTORY PREPAYMENTS CHANG

*Branch	Account Group/Item	*Project	Sub Job	Cost Code	Line Description	UOM	Order Qty.	Unit Cost	Ext. Cost
HEADOFFICE	SUBCON	ITALIAN	15	15-100	Subcontract	EA	0.00	0.0000	0.00

Cost code is not present in the project budget.

Lesson 9: Budget Forecast

Users plan, approve, enter an entire budget for a project, and they also want to see reports with actual and budgeted monthly amounts and quantities to control the project. Users may also need to do manual corrections of the budget by month on a regular basis, which may lead to revisions of the original budgeted totals.

By using Acumatica ERP Construction Edition, a project manager can do any of the following:

- Compare project monthly budgets with actual project costs for each financial period
- Auto-distribute total cost and revenue budgets across financial periods to help populate monthly budgets in a forecast entry
- Have different project budget revisions, e.g., a positive forecast, a negative forecast, and a realistic one.

For users to be able to prepare project budget forecasts, the *Budget Forecast* feature (under the *Projects* group of features) has to be enabled on the Enable/Disable Features (CS100000) form.

Learning Objectives

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

- Create a budget forecast for a project in the system
- Add financial periods to the forecast
- Distribute budget values across the periods of forecast
- Update the summarized project budget figures with the totals of monthly budgets
- Track changes in the amounts of the budget forecast

System Preparation

Sign in to the system as a project manager by using the *owen* login and *123* password.

Story

Suppose that the SweetLife company is building an Italian restaurant. A project manager of the company wants to prepare a budget forecast by periods to be able to compare and analyze monthly budgets versus actual costs within the project work breakdown structure. Because some works on interior lighting will be performed in August and September of 2019, the project manager wants to distribute the total lighting budget across the periods when this work is going to be performed for further review and analysis of budget performance.

Also, some additional works are needed on interior lighting in the restaurant. So the project manager processes the documents related to the changes and tracks the changes in the budget forecast.

Creating a Project Budget Forecast and Generating Periods

Do the following:

1. Open the Projects (PM301000) form, and in the **Project ID** box, select **ITALIAN4**.
2. On the form toolbar, click **Inquiries > Project Budget Forecast**.

The system opens the Project Budget Forecast (PM209600) form.

3. In the **Revision** box, type **1**, and press Enter.

The system displays a list of project tasks in the table.

4. In the **Description** box, type **2019 Budget Forecast**.
5. Click **Save** on the form toolbar.

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity
> 01	LABOR	<N/A>	01-311	Operations- Project Manager			1.00	15,000.00	1.00	15,000.00	0.00	0.00
01	LABOR	<N/A>	01-313	Operations- Superintendent			1.00	39,000.00	1.00	39,000.00	0.00	0.00
01	LABOR	<N/A>	01-314	Operations- Crew Leader			1.00	20,000.00	1.00	20,000.00	0.00	0.00
01	LABOR	<N/A>	01-300	Clean up			1.00	10,000.00	1.00	10,000.00	0.00	0.00
01	OTHEREXP	<N/A>	01-300	Permit			1.00	15,601.00	1.00	15,601.00	0.00	0.00
01	OTHEREXP	<N/A>	01-330	Design Fees			1.00	37,500.00	1.00	37,500.00	0.00	0.00
01	OTHEREXP	<N/A>	01-510	Telephone			1.00	950.00	1.00	950.00	0.00	0.00
01	OTHEREXP	<N/A>	01-600	Insurance			1.00	7,500.00	1.00	7,500.00	0.00	0.00
01	TRAVEL	<N/A>	01-505	Mobilization			1.00	5,000.00	1.00	5,000.00	0.00	0.00
03	MATERIAL	<N/A>	03-100	Concrete- Forming			1,500.00	3,000.00	1,500.00	3,000.00	0.00	0.00
03	MATERIAL	<N/A>	03-200	Concrete- Reinforcing			7,000.00	17,500.00	7,000.00	17,500.00	0.00	0.00
03	MATERIAL	<N/A>	03-300	Concrete- CIP Slab			775.00	77,500.00	775.00	77,500.00	0.00	0.00
03	MATERIAL	<N/A>	03-350	Concrete- Finishes			7,000.00	8,400.00	7,000.00	8,400.00	0.00	0.00
03	SUBCON	<N/A>	03-100	Concrete- Forming			30.00	1,200.00	30.00	1,200.00	0.00	0.00
03	SUBCON	<N/A>	03-200	Concrete- Reinforcing			50.00	3,750.00	50.00	3,750.00	0.00	0.00
03	SUBCON	<N/A>	03-300	Concrete- CIP Slab			40.00	2,000.00	40.00	2,000.00	0.00	0.00
03	SUBCON	<N/A>	03-350	Concrete- Finishes			16.00	640.00	16.00	640.00	0.00	0.00
04	LABOR	<N/A>	04-220	Macronu. Work			150.00	11,250.00	150.00	11,250.00	0.00	0.00

6. Click **Generate Periods**.

The system adds periods to each budget line. Also, the **Total** and **Delta** lines are added. Note that the system now displays periods in the table.

For each line, the system adds periods in the range of periods that it selects as follows:

- As the starting financial period of the range, the system selects the earliest of the following periods, subject to the additional conditions specified:
 - The financial period to which the **Planned Start Date** of the project task, which has been specified on the Project Tasks (PM302000) form, belongs.
 - The financial period to which the first actual or change order amount of the project budget lines related to the project task was posted.

- The financial period to which the **Start Date** of the project task, which has been specified on the **Tasks** tab of the Projects form, belongs. This option is applicable only if no planned start date is found for the project task and no actual or change order amount has been posted for the project budget lines related to the project task.
- The financial period to which the **Start Date** of the project, which has been specified on the **Summary** tab of the Projects form, belongs. This option is applicable only if no start date is found for the project task.
- As the ending financial period of the range, the system selects the latest of the following periods:
 - The financial period to which the **Planned End Date** of the project task, which has been specified on the Project Tasks form, belongs
 - The financial period to which the last actual or change order amount of the budget line was posted

Project Budget Forecast ☆

NOTES FILES CUSTOMIZATION TOOLS ▾

Project Budget Forecast									
Project:		Revision:		Project Task:		Account Group:			
* Project:	ITALIAN4 - Italian Restaurant Prc	* Revision:	1 - 2019 Budget Forecast	Type:	Expense	Account Group:	Inventory ID:	Cost Code:	
Description:	2019 Budget Forecast								
ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES H X									
Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount
01 LABOR <N/A>	01-311	Operations- Project Manager					03-2019	1.00	15,000.00
							Total:	0.00	0.00
							Delta:	1.00	15,000.00
01 LABOR <N/A>	01-313	Operations- Superintendent					03-2019	1.00	39,000.00
							Total:	0.00	0.00
							Delta:	1.00	39,000.00
01 LABOR <N/A>	01-314	Operations- Crew Leader					03-2019	1.00	20,000.00
							Total:	0.00	0.00
01 LABOR <N/A>	01-900	Clean up					03-2019	1.00	10,000.00
							Total:	0.00	0.00

7. Save the forecast.
8. In the **Account Group** box, select *SUBCON*.
9. In the **Cost Code** box, select *16-510*.
10. On the table toolbar, click **Add Periods**. The system opens the **Add Periods** dialog box.
11. In the **Period To** box, select *09-2019*.
12. Click **OK**.
13. Click **Save** on the form toolbar.

Project Budget Forecast ☆

NOTES FILES CUSTOMIZATION TOOLS ▾

Project: ITALIAN4 - Italian Restaurant Prc □ Project Task: □ Account Group: SUBCON - Project Subcontract □
 Revision: 1 - 2019 Budget Forecast □ Type: Expense □ Inventory ID: □ Cost Code: □
 Description: 2019 Budget Forecast

ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES H X

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount
16	SUBCON	<N/A>	16-510	Lighting- Interior				1.00	30,000.00	1.00	30,000.00	0.00	0.00
					08-2019			0.00	0.00	0.00	0.00	0.00	0.00
					09-2019			0.00	0.00	0.00	0.00	0.00	0.00
					Total:			0.00	0.00	0.00	0.00	0.00	0.00
					Delta:			1.00	30,000.00	1.00	30,000.00	0.00	0.00

Distributing Amounts Across the Periods

Do the following:

1. While you are still viewing the project budget forecast on the Project Budget Forecast (PM209600) form, on the form toolbar, click **Distribute**.
2. In the **Distribute** dialog box, leave the default values, and click **OK**.
3. Save the forecast.

Project Budget Forecast ☆

NOTES FILES CUSTOMIZATION TOOLS ▾

Project: ITALIAN4 - Italian Restaurant Prc □ Project Task: □ Account Group: SUBCON - Project Subcontract □
 Revision: 1 - 2019 Budget Forecast □ Type: Expense □ Inventory ID: □ Cost Code: □
 Description: 2019 Budget Forecast

ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES H X

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount
16	SUBCON	<N/A>	16-510	Lighting- Interior				1.00	30,000.00	1.00	30,000.00	0.00	0.00
					08-2019			0.50	15,000.00	0.50	15,000.00	0.00	0.00
					09-2019			0.50	15,000.00	0.50	15,000.00	0.00	0.00
					Total:			1.00	30,000.00	1.00	30,000.00	0.00	0.00

4. In the **Original Budgeted Amount** and **Revised Budgeted Amount** columns, for the 08-2019 period, specify 20000.00.

Notice that the **Delta** column has appeared; the total in the **Original Budgeted Amount** and **Revised Budgeted Amount** columns is 35000.00.

5. Save the forecast.

Project Budget Forecast ☆

NOTES FILES CUSTOMIZATION TOOLS ▾

* Project: ITALIAN4 - Italian Restaurant Prc □ Project Task: □ Account Group: SUBCON - Project Subcontract □
 * Revision: 1 - 2019 Budget Forecast □ Type: Expense □ Inventory ID: □ Cost Code: 16-510 - Lighting- Interior □
 Description: 2019 Budget Forecast

ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES H X

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount
16	SUBCON	<N/A>	16-510	Lighting- Interior				1.00	30,000.00	1.00	30,000.00	0.00	0.00
					08-2019	0.50	15,000.00	0.50	15,000.00	0.00	0.00		
					09-2019	0.50	15,000.00	0.50	20,000.00	0.00	0.00		
					Total:	1.00	30,000.00	1.00	35,000.00	0.00	0.00		
					Delta:	0.00	0.00	0.00	-5,000.00	0.00	0.00		

6. On the Projects (PM301000) form, open the *ITALIAN4* project.
7. On the **Cost Budget** tab, note that for the *16-510* cost code and *SUBCON* account group, the value in the **Original Budgeted Amount** and **Revised Budgeted Amount** box is *30000.00*.

Projects

NOTES FILES NOTIFICATIONS CUSTOMIZATION TOOLS ▾

* Project ID: ITALIAN4 * Status: Active Assets: 0.00
 Customer: ITALIAN01 - The Italian Company Hold Liabilities: 0.00
 Template: CONTM - Construction T&M Project Income: 0.00
 * Description: Italian Restaurant Project Expenses: 193,517.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES CHANGE ORDERS CHANGE REQUESTS UNION LOCALS ACTIVITY HISTORY EMPLOYEES

COST BUDGET

Project Task	Cost Code	Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
16	15-700	MATERIAL	HVAC- Air Distribution	1.00	LS	25,000.0000	25,000.00	0.00	0.00	0.00	0.00	1.00	25,000.00
16	15-900	LABOR	HVAC- Instrumentation and Controls	40.00	HOUR	120.0000	4,800.00	0.00	0.00	0.00	0.00	40.00	4,800.00
16	15-900	MATERIAL	HVAC- Instrumentation and Controls	1.00	LS	5,000.0000	5,000.00	0.00	0.00	0.00	0.00	1.00	5,000.00
16	15-950	LABOR	HVAC- Testing, Adjusting, and Balancing	40.00	HOUR	75.0000	3,000.00	0.00	0.00	0.00	0.00	40.00	3,000.00
16	15-950	MATERIAL	HVAC- Testing, Adjusting, and Balancing	1.00	LS	3,700.0000	3,700.00	0.00	0.00	0.00	0.00	1.00	3,700.00
16	16-200	LABOR	Elec- Power	120.00	HOUR	125.0000	15,000.00	0.00	0.00	0.00	0.00	120.00	15,000.00
16	16-200	MATERIAL	Elec- Power	1.00	LS	50,000.0000	50,000.00	0.00	0.00	0.00	0.00	1.00	50,000.00
16	16-210	LABOR	Elec- Motors and Generator	40.00	HOUR	125.0000	5,000.00	0.00	0.00	0.00	0.00	40.00	5,000.00
16	16-210	MATERIAL	Elec- Motors and Generator	1.00	LS	20,000.0000	20,000.00	0.00	0.00	0.00	0.00	1.00	20,000.00
16	16-510	SUBCON	Lighting- Interior	1.00	EA	30,000.0000	30,000.00	0.00	0.00	0.00	0.00	1.00	30,000.00
16	16-520	SUBCON	Lighting- Exterior	1.00	EA	15,000.0000	15,000.00	0.00	0.00	0.00	0.00	1.00	15,000.00

8. Go back to the Project Budget Forecast form.
9. Open the *1* revision for the *ITALIAN4* project.
10. In the Summary area, specify the following settings:
 - a. **Account Group:** *SUBCON*
 - b. **Cost Code:** *16-510*
11. On the table toolbar, click **Update Project Budget Line**.
 The system updated the project budget with the **Total** value (\$35000) for this line. The **Delta** line has disappeared.
12. Save the forecast.

13. Go back to the Projects form, and open the *ITALIAN4* project.

14. On the **Cost Budget** tab, note that for the *16-510* cost code and *SUBCON* account group, the value in the **Original Budgeted Amount** and **Revised Budgeted Amount** box is *35000.00*.

The screenshot shows the Projects form with the Cost Budget tab selected. The table below displays cost items and their budget details:

Job	Cost Code	Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
15	15-700	MATERIAL	HVAC- Air Distribution	1.00	LS	25,000.000	25,000.00	0.00	0.00	0.00	0.00	1.00	25,000.00
15	15-900	LABOR	HVAC- Instrumentation and Controls	40.00	HOUR	120,000.00	4,800.00	0.00	0.00	0.00	0.00	40.00	4,800.00
15	15-900	MATERIAL	HVAC- Instrumentation and Controls	1.00	LS	5,000.000	5,000.00	0.00	0.00	0.00	0.00	1.00	5,000.00
15	15-950	LABOR	HVAC- Testing, Adjusting, and Balancing	40.00	HOUR	75,000.00	3,000.00	0.00	0.00	0.00	0.00	40.00	3,000.00
15	15-950	MATERIAL	HVAC- Testing, Adjusting, and Balancing	1.00	LS	3,700.000	3,700.00	0.00	0.00	0.00	0.00	1.00	3,700.00
16	16-200	LABOR	Elec- Power	120.00	HOUR	125,000.00	15,000.00	0.00	0.00	0.00	0.00	120.00	15,000.00
16	16-200	MATERIAL	Elec- Power	1.00	LS	50,000.000	50,000.00	0.00	0.00	0.00	0.00	1.00	50,000.00
16	16-210	LABOR	Elec- Motors and Generator	40.00	HOUR	125,000.00	5,000.00	0.00	0.00	0.00	0.00	40.00	5,000.00
16	16-210	MATERIAL	Elec- Motors and Generator	1.00	LS	20,000.000	20,000.00	0.00	0.00	0.00	0.00	1.00	20,000.00
16	16-510	SUBCON	Lighting- Interior	1.00	EA	30,000.000	35,000.00	0.00	0.00	0.00	0.00	1.00	35,000.00
16	16-520	SUBCON	Lighting- Exterior	1.00	EA	15,000.000	15,000.00	0.00	0.00	0.00	0.00	1.00	15,000.00

NOTE: Budget quantities are distributed by similar rules as ones demonstrated for budget amounts above.

Processing a Change Request

- On the Change Requests (PM308500) form, open the *Additional lighting installation services* request of *9/19/2019*.
- In the Summary area, clear the **Hold** check box.
- Click **Actions > Approve**.

The screenshot shows the Change Requests form with the following details:

Reference Nbr:	Project:	Cost Total:	
000010 - Ad	ITALIAN4 - Italian Restaurant Project	5,000.00	
Status:	Customer:	Line Total:	
On Hold	ITALIAN01 - The Italian Company	5,992.00	
<input checked="" type="checkbox"/> Hold	Project Issue:	Markup Total:	
		1,754.99	
* Change Date:	RFI:	Gross Margin %:	
9/19/2019		35.48	
Contract Time ...	Change Order Nbr:	Price Total:	
0		7,746.99	
Ext. Ref. Nbr:			
* Description:	Additional lighting installation services		

The table below shows the estimated impact on the budget:

ESTIMATION	DETAILED DESCRIPTION	MARKUPS	APPROVAL DETAILS									
Project Task	Account Group	Cost Code	Inventory ID	Description	Quantity	UOM	Unit Cost	Ext. Cost	Price Markup (%)	Revenue Task	Revenue Account Group	Revenue Code
> 16	SUBCON	16-510	SUBCON	Lighting- Interior	1.00	HOUR	5,000.00	5,000.00	7.00	REVENUE		

- On the Project Budget Forecast (PM209600) form, in the **Project** box, select *ITALIAN4*.
- In the **Account Group** box, select *SUBCON*.

6. In the **Cost Code** box, select **16-510**.
7. In the **Potential CO Amount** box, for the **09-2019** period, note that the amount specified in the change request has appeared.

The screenshot shows the Project Budget Forecast screen with the following details:

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount
> 16	SUBCON	<N/A>	16-510	Lighting- Interior			08-2019	1.00	35,000.00	1.00	35,000.00	0.00	5,000.00	0.00	0.00
							09-2019	0.50	15,000.00	0.50	15,000.00	0.00	0.00	0.00	0.00
							Total:	1.00	35,000.00	1.00	35,000.00	0.00	5,000.00	0.00	0.00

Processing a Change Order

1. Open the Change Orders (PM308000) form, and click **Add New Record**.
2. In the **Change Date** box, specify **9/19/2019**.
3. In the **Approval Date** box, specify **9/19/2019**.
4. In the **Class** box, specify **INT**.
5. In the **Project** box, select **ITALIAN4**.
6. In the **Description** box, type *Additional services are necessary*.
7. On the **Change Requests** tab, click **Select Change Requests**.
8. In the **Select Change Requests** dialog box, select the unlabeled check box next to the *Additional lighting installation services* request of **9/19/2019**.
9. Click **Add Change Requests & Close**.
10. On the **Commitments** tab, in the **UOM** column, specify **HOUR**.
11. In the **Vendor** column, select **CONHOMED**.
12. In the Summary area, clear the **Hold** check box.
13. Save the change order.

Change Orders

← SAVE & CLOSE ⌂ + ⌂ K ⌂ < ⌂ > ⌂ RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr.: 000009 - Ad	Class: INT - Internal cost-only affecting change c	Revenue Budget Change Total: 0.00
Status: Open	Project: ITALIAN4 - Italian Restaurant Project	Commitments Change Total: 5,000.00
<input checked="" type="checkbox"/> Hold	Customer: ITALIAN01 - The Italian Company	Cost Budget Change Total: 5,000.00
Change Date: 9/19/2019	External Reference Nbr.:	Gross Margin Amount: -5,000.00
Approval Date: 9/19/2019	Revenue Change Nbr.: N/A	Gross Margin %: 0.00
Contract Time ... 0		Change Request Cost Total: 5,000.00
Description: Additional services are necessary		Change Request Line Total: 0.00
		Change Request Markup Total: 1,000.00
		Change Request Price Total: 1,000.00

CHANGE REQUESTS COST BUDGET COMMITMENTS DETAILED DESCRIPTION ATTRIBUTES APPROVAL DETAILS COMPLIANCE

⟳ + X SELECT CHANGE REQUESTS H X

Reference Nbr.	Status	*Description	Cost Total	Line Total	Markup Total	Price Total	Contract Time Change Days
000010	Open	Additional lighting installation services	5,000.00	0.00	1,000.00	1,000.00	

14. Click **Release** on the form toolbar.

15. On the Project Budget Forecast (PM209600) form, in the **Project** box, select *ITALIAN4*.

16. In the **Account Group** box, select *SUBCON*.

17. In the **Cost Code** box, select *16-510*.

18. In the **Budgeted CO Amount** box, for this period, note that the amount specified in the change order has appeared.

Project Budget Forecast ⌂

NOTES FILES TOOLS ▾

Project: ITALIAN4 - Italian Restaurant Prj | Project Task: | Account Group: SUBCON - Project Subcontract

Revision: 1 | Type: Expense | Inventory ID: | Cost Code: 16-510 - Lighting- Interior

ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES H X

Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Actual Quantity	Actual Amount	Revised Quantity - Actual Quantity	Revised Amount - Actual Amount
			1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	30,000.00	1.00	10,000.00
		08-2019	0.50	15,000.00	0.50	17,500.00	0.00	0.00	0.00	0.00	0.00	30,000.00	0.50	-12,500.00
		09-2019	0.50	20,000.00	0.50	22,500.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.50	22,500.00
		Total:	1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	30,000.00	1.00	10,000.00

Paying a Commitment

- On the Projects (PM301000) form, open the *ITALIAN4* project.
- On the **Commitments** tab, in the **Order Nbr.** box, click the link for the *SC-000013* commitment of *8/26/2019*.
- On the form toolbar of the Subcontracts form, which opens, click **Actions > Enter AP Bill**.

The system opens the Bills and Adjustments (AP301000) form with the details of the subcontract.

4. In the **Date** box, select 10/1/2019.
5. In the Summary area, clear the **Hold** check box.
6. Save and release the bill.

Account Group Item	Description	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	Account	Description	Project
HEADOFFICE	SUBCON	Interior lighting and installation	0.00	HOUR	32,144.00	0.00	32,144.00	0.00	54200	Project Subcontract Expense	ITALIAN4
HEADOFFICE	SUBCON	Exterior lighting and installation	0.00	HOUR	14,899.00	0.00	14,899.00	0.00	54200	Project Subcontract Expense	ITALIAN4

7. On the Project Budget Forecast (PM209600) form, in the **Project** box, select **ITALIAN4**.
8. In the **Account Group** box, select **SUBCON**.
9. In the **Cost Code** box, select **16-510**.

Note that the value in the **Delta** line for the actual amount is highlighted in red. This means that a period for which an actual amount exists is not displayed in the forecast.

Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Actual Quantity	Actual Amount	Revised Quantity - Actual Quantity	Re Am / Ar
			1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	62,144.00	1.00	-22.14
		08-2019	0.50	15,000.00	0.50	17,500.00	0.00	0.00	0.00	0.00	0.00	30,000.00	0.50	-12.50
		09-2019	0.50	20,000.00	0.50	22,500.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.50	22.50
		Total:	1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	30,000.00	1.00	10.00
		Delta:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32,144.00	0.00	-32.14

10. On the table toolbar, click **Update Forecast Lines**.

The system adds the 10-2019 period to the budget forecast line with the amount of the bill in the **Actual Amount** column.

11. Save the forecast.

Project Budget Forecast

SAVE & CLOSE GENERATE PERIODS COPY REVISION DISTRIBUTE REPORTS

* Project:	ITALIAN4 - Italian Restaurant Prc	Project Task:	Account Group:	SUBCON - Project Subcontract
* Revision:	1 - 2019 Budget Forecast	Type:	Expense	Inventory ID:
Description:	2019 Budget Forecast			

ADD PERIODS UPDATE PROJECT BUDGET LINE UPDATE FORECAST LINES

Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Actual Quantity	Actual Amount	Revised Quantity - Actual Quantity	Revised Amount - Actual Amount
			1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	62,144.00	1.00	-22.1
	08-2019		0.50	15,000.00	0.50	17,500.00	0.00	0.00	0.00	0.00	0.00	30,000.00	0.50	-12.5
	09-2019		0.50	20,000.00	0.50	22,500.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.50	22.5
	10-2019		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32,144.00	0.00	-32.1
	Total:		1.00	35,000.00	1.00	40,000.00	0.00	0.00	0.00	5,000.00	0.00	62,144.00	1.00	-22.1

Lesson 10: Change Management

In Acumatica ERP Construction Edition, users can control changes to the project budgeted and committed values and control the profitability of every change initiated by a customer.

The two-tier change management is supported in Acumatica ERP Construction Edition through smaller *change requests* that are comprised within a bigger *change order*, which requires the *Change Orders* and *Change Requests* features to be enabled on the Enable/Disable Features (CS100000) form.

Change requests (CRs) are detailed breakdowns of potential changes to the project budget and commitments, such as additions, deletions, or edits to the existing cost or revenue budget.

Users can create CRs (and approve them, if needed) on the Change Requests (PM308500) form both in the desktop version of Acumatica ERP Construction Edition and in the mobile application. By using the mobile app, a user can quickly enter a CR without having to specify all its attributes, but if needed, a user can attach to CRs various files, images, sketches, and photos from the field.

A CR does not directly affect the project revenue and cost budget before the related change order is released. Instead, open change requests are tracked in separate Potential CO Quantity and Potential CO Amount buckets.

A CR comprises estimation details and the following markups:

- Horizontal markup (applied to the CR estimation line)
 - **Price Markup (%)**: Copied from the settings of the specified item, if any. This markup can be specified for each CR line manually.
 - **Line Markup (%)**: Copied from the settings of the cost account group. This markup can be overridden for each CR line manually if the account group settings allow doing so.
- Vertical markup (applied to document total)
 - **%**: Copied from the project settings. This markup can be overridden manually if the settings allow doing so. **% Markup Amount = Line Total * % Markup Value / 100**. There can be as many % type markups as necessary. **Markup Subtotal = \sum % Markup Amount**.
 - **Cumulative %**: Copied from the project settings. This markup can be overridden manually if the settings allow doing so. Cumulative % markup amount = (all the previously applied % markups) * **Cumulative % Value /100**.
 - **Flat fee**: Copied from the project settings. This markup can be overridden manually if the settings allow doing so. The amount is added to the total markup.

If the project cost budget and commitments need to be updated through a separate change order before the revenue part has been approved, a revenue change order and a cost change order may be used. A change request may be associated with both a revenue

change order and a cost change order, or with just a revenue change order. Most commonly, however, a change request relates to only one change order that contains all types of estimation lines—that is, revenue budget, cost budget, and commitment lines.

Users can create change orders on the Change Orders (PM308000) form.

A change order is a document for profitability analysis and audit trial 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. A change order provides the following capabilities:

- Ability to record changes to the project cost and revenue budget, and commitments. With the change order workflow enabled for a project, its revised values are calculated as original values affected by change orders:

$$\text{Revised Amount} = \text{Original Amount} + \text{Released Change Order Amounts}$$

- Ability to view the list of change orders related to the project, which is displayed on the **Change Orders** tab of the Projects (PM301000) form
- Ability to see changes per purchase order as well as the original and final committed values
- Ability to see the list of change orders that affect a particular subcontract or purchase order
- Ability to see the profitability of every project budget change initiated by a customer

A change order document has comprehensive reference numbers. There is a system-wide numbering sequence of change orders that can be defined on the Numbering Sequences (CS201010) form and specified on the Project Preferences (PM101000) form. Besides, each project has its own numbering sequence of change orders for printing to the customer, which can also be modified manually. Thus, a change order is assigned two independent numbers: a key reference number (**Reference Nbr.**) of the change order document in the system and a custom string number (**Revenue Change Nbr.**) of the change order in the scope of the project for printing it out on the Change Order (PM643000) form for the customer. In addition to this, a change order can have an external reference number (**External Reference Nbr.**) that can be populated with the number from an external system integrated with Acumatica ERP; or it can be used for manually entered identifiers required by the customer.

At the initial stage of a project, after the project budget has been agreed, you can lock the original figures from further editing by using the **Lock Budget** action on the Projects (PM301000) form. After the original values have been locked, the following options can be used:

- If the project does not utilize the change order workflow, the revised budget figures can be edited manually on the Projects form.
- With the change order workflow enabled for the project, revised budget figures become read-only because all changes can be made to the budget only via change orders. Revised budget figures become updated by the following logic: $\text{Revised Amount} = \text{Original Amount} + \text{Released Change Orders}$

The lock applies to both **Revenue Budget** and **Cost Budget** tabs of the Projects form. The **Unlock Budget** action makes the original budget figures editable regardless of whether the change order workflow is enabled.

If the **Change Order Workflow** check box is selected on the Projects form and the user applies the **Lock Budget** action, the following settings become non-editable: **Budgeted Quantity**, **Unit Rate**, **Budgeted Amount**, **Revised Quantity**, and **Revised Amount** on the **Revenue Budget** and **Cost Budget** tabs.

If the **Change Order Workflow** check box is cleared and the user applies the **Lock Budget** action, the following settings become non-editable: **Budgeted Quantity**, **Unit Rate**, and **Budgeted Amount** on the **Revenue Budget** and **Cost Budget** tabs.

Once the change order is released, the Potential values flow to the Budgeted CO values, thus altering the project Revised Budgeted values.

Revised = Original + Budgeted CO

What is more, proposed commitments are generated or the existing ones are reopened or updated on the release of the change order.

Revised Committed = Original Committed + Committed CO

If you are not pleased with the result of the changes, you can reverse your change orders.

Lesson Objectives

In this lesson, you will do the following:

- Learn how to configure 1-tier and 2-tier change order workflow for a project
- Set up change request markups and approval
- Create a change request
- Partially process the cost & commitment part and the revenue part of a change request within two separate change orders
- Fully process a change request within a change order
- Release a change order affecting the project revenue budget, project cost budget, and project commitments
- Reverse a change order
- Review the changes reflected in the project in the Potential CO bucket and Budgeted CO bucket

Story

We are a general contractor building an Italian restaurant. We have already set up the original project budget and now we are in the middle of construction. Suddenly an on-site worker notices that the wet subfloor needs drying, cleaning, and airing. They want to ask

for a subcontractors' help and need approval from the owner. What is more, ACME DOORS & Glass vendor arrives onsite. They find out that the French Style Window specified in the plans does not fit the framed opening. This needs to be addressed with the engineer, architect, and subs.

These things must be formalized somehow, approved with all the necessary parties, and reflected in the project budget in the form of increased costs and revenues. That is where change management comes to the fore.

System Preparation

Sign in by using the *owen* login and *123* password.

Configuring the Change Management Functionality

- Review the markups set up on the Project Preferences (PM101000) form.

- Default Price Markup, %**

This horizontal markup value will be automatically specified in the **Price Markup** column of a new estimation line of a change request on the Change Requests (PM308500) form. The value will be overridden with the value specified for the stock or non-stock item specified (if any) in the **Inventory ID** column if the item has any **item-specific markup** percent specified on the **Price/Cost Info** tab of the Stock Items (IN202500) or Non-Stock Items (IN202000) form, respectively. The value can be manually overridden in an estimation line.

- Document Markups**

These vertical markup values are automatically copied into each newly created project on the Projects (PM301000) form where they can be edited or deleted to create project-specific document markups. When a CR is initiated for a project, it inherits the **project-specific markup** values.

Type	Description	Value
%	Profit	8.00
%	Overhead	4.00
Cumulative %	Default cumulative %	5.00
Flat Fee	Additional charges	1,000.00

- In the **Document Markups** table, create project-specific markups for the **ITALIAN2** project on the **Settings** tab of the Projects (PM301000) form.

Note that the project has inherited the default markup values specified on the Project Preferences form.

Type	Description	Value	Project Task	Account Group	Cost Code
%	Profit	9.00	02	REVENUE	02-000
%	Overhead	6.00	02	REVENUE	02-000
Cumulative %	Default Cu-mulative %	7.00	02	REVENUE	02-000
Flat Fee	Additional charges	1,250.00	02	REVENUE	02-000

3. On the Project Preferences form, make sure that the *CR Approval* approval map is specified in the **Change Request Approval Map** box.
4. On the Change Order Classes (PM203000) form, configure the *INTERNAL* and *EXTERNAL* change order classes and make sure the *DEFAULT* change order class has been configured as described in the table and shown in the screenshots below.

Class ID	Description	2-tier Change Management	Cost Budget	Revenue Budget	Commitments	Attributes
INTERNAL	Internal cost-only affecting change orders	Selected	Selected (by default and read-only)	Cleared	Selected (by default and read-only)	BURDEN = 1.25; FS-CAUSE
EXTERNAL	External change orders	Selected	Selected (by default and read-only)	Selected	Selected (by default and read-only)	
DEFAULT	Default Change Order Class	Cleared	Selected	Selected	Selected	

Note that the **Cost Budget**, **Revenue Budget**, and **Commitments** check boxes regulate what type of changes can be initiated with change orders that belong to the class. The **2-tier Change Management** check box indicates whether a change order that belongs to this class supports the two-tier change management—that is, whether it can have related change requests. When the check box is selected, the **Cost Budget** and **Commitments** check boxes on the **Details** tab become non-editable.

Change Order Classes

DETAILS

* Class ID: Active

* Description:

2-tier Change Management

ATTRIBUTES

Cost Budget

Revenue Budget

Commitments

Change Order Classes

* Class ID: INTERNAL - Internal cost-only Active

* Description: Internal cost-only affecting change orders

2-tier Change Management

DETAILS **ATTRIBUTES**

Active	Attribute ID	Description	Sort Order	Required	Internal	Control Type	Default Value
<input checked="" type="checkbox"/>	BURDEN	Project Burden Percentage	<input type="checkbox"/>	<input type="checkbox"/>	Text	1.25	
<input checked="" type="checkbox"/>	FSCAUSE	Cause Code	<input type="checkbox"/>	<input type="checkbox"/>	Combo		

Change Order Classes

Change Order Classes

← SAVE & CLOSE ⌂ + ⌂ K < > ⌂

* Class ID:	DEFAULT - Default Change C	<input checked="" type="checkbox"/> Active
* Description:	Default Change Order Class	<input type="checkbox"/> 2-tier Change Management
<input checked="" type="checkbox"/> DETAILS <input type="checkbox"/> ATTRIBUTES		
<input checked="" type="checkbox"/> Cost Budget <input checked="" type="checkbox"/> Revenue Budget <input checked="" type="checkbox"/> Commitments		

Creating Change Requests

Create two change requests as follows:

1. On the Change Requests (PM308500) form, click **Add New Record** on the form toolbar and specify the following settings:
 - a. **Project:** ITALIAN2
 - b. **Description:** Wet subfloor needs drying, cleaning, and airing

Note that at this point, with the minimum info specified, you can save the change request.
 - c. **Change Date:** 3/21/2019
 - d. **Contract Time Change, Days:** 4
 - e. **Project Issue:** IS-000001
 - f. **RFI:** RF-000001
2. On the **Detailed Description** tab, type: Wet subfloor needs drying, cleaning, and airing. Need approval.
3. On the **Estimation** tab, upload the detail lines from the *ITALIAN_CR1.xlsx* file, which is provided with the training materials.
4. For the line with the 03-350 cost code, in the **Vendor** column, select CONCCO.
5. Save the change request.

The screenshot shows the SAP Change Requests interface. At the top, there's a header with 'Change Requests' and navigation buttons like 'SAVE & CLOSE', 'CREATE CHANGE ORDER', 'NOTES', 'ACTIVITIES', 'FILES', 'NOTIFICATIONS', 'CUSTOMIZATION', and 'TOOLS'. The main area has sections for 'ESTIMATION', 'DETAILED DESCRIPTION', 'MARKUPS', and 'APPROVAL DETAILS'. In the 'DETAILED DESCRIPTION' section, there's a table with columns for Project Task, Account Group, Inventory ID, Cost Code, Description, Quantity, UOM, Unit Cost, Ext. Cost, Price Markup (%), Revenue Task, Revenue Account Group, Revenue Code, Unit Price, Ext. Price, Line Markup (%), Line Amount, Vendor, and Create Commitment. The table contains entries for LABOR and SUBCON tasks.

Make sure that the specified settings correspond to the Revenue Budget Level of the project—that is, the level of detail on each tab coincides with that on the project budget tabs. The change order Revenue Budget should have the level of the *ITALIAN2* project Revenue Budget Level (Task and Cost Code) and the change order Cost Budget should have the level of the project Cost Budget Level (Task and Cost Code).

6. On the **Markups** tab, project-specific markups should be listed, with respect to the Revenue Budget Level of the project. Do the following:
 - a. Change the value of the *Profit* markup from 9 to 10.
 - b. Add a new flat fee markup line by using the settings specified in the table:

Type	Description	Value	Amount Subject to Markup	Markup Amount	Project Task	Account Group	Cost Code
Flat Fee	Additional charges for Italian Restaurant	1 450,00	1 656,16	1 450,00	02	REVENUE	02-000

Change Requests

← SAVE & CLOSE ☰ + ⌂ ⌃ ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ CREATE CHANGE ORDER ACTIONS ▾ REPORTS ▾

Reference Nbr.: 000011 - Wet	Project: ITALIAN2 - Italian Restaurant Project	Cost Total: 1,380.00
Status: On Hold	Customer: ITALIAN01 - The Italian Company	Line Total: 1,656.16
<input checked="" type="checkbox"/> Hold	Project Issue: IS-000001	Markup Total: 2,964.99
* Change Date: 3/21/2019	RFI: RF-000001	Gross Margin %: 70.14
Contract Time ...	Change Order Nbr.:	Price Total: 4,621.15
Ext. Ref. Nbr.:		
* Description: Wet subfloor needs drying, cleaning, and airing		

ESTIMATION DETAILED DESCRIPTION MARKUPS APPROVAL DETAILS

Type	Description	Value	Amount Subject To Markup	Markup Amount	Project Task	Account Group	Cost Code	
Profit	10.00	1,656.16	165.62	02	REVENUE	02-000	!	
Overhead	6.00	1,656.16	99.37	02	REVENUE	02-000	!	
Cumulative %	Default Cumulative %	7.00	0.00	0.00	02	REVENUE	02-000	!
Flat Fee	Additional Charges	1,250.00	1,656.16	1,250.00	02	REVENUE	02-000	!
Flat Fee	Additional charges for Italian Restaurant	1,450.00	1,656.16	1,450.00	02	REVENUE	02-000	!

7. Save the change request.
8. Clear the **Hold** check box.
9. Click **Actions > Approve** on the form toolbar.
10. On the Projects (PM301000) form, select the *ITALIAN2* project and then click **Create Change Request** on the form toolbar.
11. On the Change Requests form that opens, specify the following settings:
 - a. **Description:** French Style Window
 - b. **Date:** 7/29/2019
 - c. **Contract Time Change, Days:** 4
12. Click the Edit button to the right of the **Project Issue** box.
13. On the Project Issue (PJ302000) form that opens, specify the following settings:
 - a. **Summary:** French Style Window doesn't fit in framed opening
 - b. **Project:** *ITALIAN2*
 - c. **Class ID:** FIELD
 - d. **Owner:** Anna Johnson
 - e. **Schedule Impact:** Selected
 - f. **Schedule Impact (days):** 5

g. Cost Impact: Selected

h. Cost Impact (days): 3,500.00

j. Details (tab): ACME DOORS & Glass is onsite. The French Style Window specified on the plans does not fit in framed opening. This needs to be addressed with engineer/architect and subs.

* Summary: French Style Window doesn't fit in framed opening

* Project Issue ID: IS-000002

* Project: ITALIAN2 - Italian Restaurant

Sub Job:

* Class ID: FIELD - Field Report

Related Entity:

Converted To:

Due Date: 8/6/2019

Priority: Medium

* Status: Open

Created On: 10/25/2019 9:00 AM

Created By: admin admin

* Owner: Anna Johnson

Workgroup:

Resolved On:

Project Issue Type:

Schedule Impact

Schedule Impact (days): 5

Cost Impact

Cost Impact: 3,500.00

DETAILS RELATED ACTIVITIES ATTRIBUTES DRAWINGS

VISUAL Paragraph B I U A

ACME DOORS & Glass is onsite. The French Style Window specified on the plans does not fit the framed opening. This needs to be addressed with engineer/architect and subs.

14. Click Save & Close on the form toolbar.

As a result, you return to the editing of the new change request on the Change Requests form. Note that the project issue that you have just created is specified in the **Project Issue** box.

15.On the **Detailed Description** tab, type: ACME DOORS & Glass is onsite. The French Style Window specified on the plans does not fit the framed opening. This needs to be addressed with engineer/architect and subs. See the photo attached.

16.Save the changes.

17.Click **Files** on the form title bar. The **Files** dialog box opens.

18.Click **Browse**, navigate to the *Window-Rough-Openings.jpg* file, which is provided with the training materials, and select it.

19.Click **Upload**, and close the dialog box.

- 20.** On the **Estimation** tab, enter detail lines by uploading the *ITALIAN_CR2.xlsx* file, which is provided with the training materials.

Project Task	Account Group	Inventory ID	Cost Code	Description	Quantity	UOM	Unit Cost	Ext. Cost	Price Markup (%)	Revenue Task	Revenue Account Group	Revenue Code	Unit Price	Ext. Price	Line Markup (%)	Line Amount	Vendor	Create Commit
08	SUBCON	SUBCON	08-100	Doors- Exterior	20.00	EA	52.00	1,040.00	7.00	08	REVENUE	08-000	55.64	1,112.00	12.00	1,246.34	DOORS CO	<input checked="" type="checkbox"/>
08	SUBCON	SUBCON	08-520	Windows- Wood	17.00	EA	50.00	850.00	7.00	08	REVENUE	08-000	53.50	909.50	12.00	1,018.64	DOORS CO	<input checked="" type="checkbox"/>

Make sure the specified settings correspond to the Revenue Budget Level of the project.

- 21.** Save the change request.

- 22.** Clear the **Hold** check box.

- 23.** Click **Actions > Approve** on the form toolbar.

As a result, the Potential CO Quantity and Potential CO Amount of the cost and revenue lines on the Projects form have been updated.

Processing the Changes

1. Open the *ITALIAN2* project on the Projects (PM301000) form.
2. On the **Change Requests** tab, review the list of linked change requests.
3. Review the project budget forecast as follows:
 - a. On the Projects form, click **Inquiries > Project Budget Forecast** on the form toolbar.
 - b. On the Project Budget Forecast (PM209600) form that opens, specify the following settings:
 - **Revision:** 1
 - **Description:** Initial forecast for Italian Restaurant
 - **Project Task:** 08
 - **Account Group:** SUBCON
 - **Cost Code:** 08-100
 - c. Click **Generate Periods** on the form toolbar.
 - d. Click **Add Periods** on the table toolbar.

- e. In the dialog box, in the **Period From** and **Period To** boxes, select **10-2019**, and click **OK**.
- f. Click **Save**.
- g. See how potential values are reflected in the financial period to which the change date of the change request belongs.

Project Budget Forecast

The screenshot shows the 'Project Budget Forecast' form. At the top, there are fields for Project (ITALIAN2 - Italian Restaurant Prc), Project Task (08 - OPENINGS), Account Group (SUBCON - Project Subcontract), and various revision and description details. Below this is a toolbar with buttons for ADD PERIODS, UPDATE PROJECT BUDGET LINE, and UPDATE FORECAST LINES. The main area is a table with the following data:

Project Task	Account Group	Inventory ID	Cost Code	Description	Planned Start Date	Planned End Date	Financial Period	Original Budgeted Quantity	Original Budgeted Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity
> 08	SUBCON	<N/A>	08-100	Doors- Exte...			07-2019	28.00	1,400.00	28.00	1,400.00	20.00	1,040.00	0.00
							10-2019	0.00	0.00	0.00	0.00	20.00	1,040.00	0.00
							Total:	0.00	0.00	0.00	0.00	20.00	1,040.00	0.00
							Delta:	28.00	1,400.00	28.00	1,400.00	0.00	0.00	0.00

4. On the **General Settings** tab of the Project Preferences (PM101000) form, in the **Default Change Order Class** box, select **EXTERNAL**, and then save the changes.

You have changed the default class because the two-tier change management is not enabled for the **DEFAULT** class, so you would not be able to create a change order from a change request if the **DEFAULT** class was specified as the default class.

5. On the Change Requests (PM308500) form, select the first change request that you created in this lesson (*Wet subfloor needs drying, cleaning, and airing*) and then click **Create Change Order** on the form toolbar.
 6. On the Change Orders (PM308000) form that opens, in the **Description** box, type: Additional costs and revenue for the Italian Restaurant.
 7. Save the change order.
 8. Check that the revenue and cost budget lines and commitments have been generated in the newly created change order.
- Pay attention to how the lines are grouped within a change order and how a single estimation grid of a change request updates the three grids of a change order.
9. On the **Revenue Budget** tab, click the line for the **02-000** cost code and then click **View Change Request Details** on the table toolbar to make sure that the markups are also present.

10. Notice the potential commitment added on the **Commitments** tab.

In the **Commitment Type** column of the only line on the **Commitments** tab, change the type to *Subcontract*.

11. Click **Select Commitments** on the table toolbar and in the **Select Commitments** dialog box that opens, do the following:

- a. Select the **Include Non-Open Commitments** check box.
- b. Select the line with the *03-100* cost code.
- c. Click **Add Lines & Close**.

12. Once the line is added to the **Commitments** tab of the Change Orders form, in the **Quantity** column for this line, specify 4.

13. Add a new line in this commitment and specify the following settings:

- **Sub Job:** 03
- **Cost Code:** 03-100
- **Account Group/Item:** SUBCON
- **Quantity:** 6
- **UOM:** HOUR
- **Unit Cost:** 30
- **Commitment Type:** Subcontract
- **Commitment Nbr.:** SC-000004

14. Select one more existing commitment (a materials purchase order) as follows:

- a. Click **Select Commitments** on the table toolbar.
- b. In the **Select Commitments** dialog box, which opens, make sure the unlabeled check box is cleared for the *03-100* cost code.
- c. Select the unlabeled check box for the line with the *04-700* cost code, and click **Add Lines & Close**.
- d. On the **Commitments** tab, in the **Amount** box, specify *1345.00* for the added line.

15. Save the change order.

16. In the **Status** column, review the statuses of the lines. The lines on this tab can have one of the following statuses: *New Document*, *New Line*, *Update*, and *Reopen*.

Sub Job	Cost Code	Description	Quantity	UOM	Unit Cost	Amount	Account	Vendor	Commitment Type	Commitment Nbr.
03	03-350	SUBCON	10.00	HOUR	38.00	380.00	54200	CONCCO	Subcontract	
03	03-100	SUBCON	4.00	HOUR	35.00	140.00	54200	DRYWCO	Subcontract	SC-000004
03	03-100	SUBCON	6.00	HOUR	30.00	180.00	54200	DRYWCO	Subcontract	SC-000004
04	04-700	MATERIAL	0.00	EA	0.00	1,345.00	54500	SPECO	Purchase Order	000026

- 17.** On the **Change Requests** tab, in the **Reference Nbr.** column, click the reference number of the related change request in the only row of the tab.
- 18.** Note that the change request is now non-editable and its status is *Closed*. Also, it has a link to the change order.

Change Requests

The screenshot shows the 'Change Requests' form with the following details:

- Reference Nbr.:** 000011 - Wet
- Status:** Closed (highlighted with a red box)
- Project:** ITALIAN2 - Italian Restaurant Project
- Customer:** ITALIAN01 - The Italian Company
- Change Date:** 3/21/2019
- Contract Time ...:** 4
- Description:** Wet subfloor needs drying, cleaning, and airing
- Change Order Nbr.:** 000009 - Additional costs and revenue for (highlighted with a red box)
- Cost Total:** 1,380.00
- Line Total:** 1,656.16
- Markup Total:** 2,983.54
- Gross Margin %:** 70.26
- Price Total:** 4,639.70

Below the main table, there are tabs for **ESTIMATION**, **DETAILED DESCRIPTION**, **MARKUPS**, and **APPROVAL DETAILS**. The **DETAILED DESCRIPTION** tab is selected, showing a table with the following data:

Project Task	Account Group	Cost Code	Inventory ID	Description	Quantity	UOM	Unit Cost
> 01	LABOR	01-900		Clean up	1.00	LS	1,000.00
03	SUBCON	03-350	SUBCON	Concrete- Finishes	10.00	HOUR	38.00

- 19.** Close the window with the change request.
- 20.** On the Change Orders (PM308000) form, create another change order and specify the following settings:
- **Class:** INTERNAL
 - **Project:** ITALIAN2
 - **Description:** Extra costs
- 21.** On the **Change Requests** tab, click **Select Change Requests** on the table toolbar.
- 22.** In the **Select Change Requests** dialog box that opens, select the unlabeled check box for the earlier created change request (*French Style Window*), and then click **Add Change Requests & Close**.
- 23.** Save the change order.
- 24.** On the **Change Requests** tab, in the **Reference Nbr.** column, click the reference number of the related change request in the only row of the tab.
- 25.** On the Change Requests form, which opens, verify that the status of the change request is *Open* but its cost & commitment part is read-only, and still the revenue part can be modified.

In the **Cost Change Order Nbr.** box, a reference to the document is shown, while the **Change Order Nbr.** box is empty (because the revenue part has not been processed yet).

- 26.**On the **Estimation** tab, in the **Line Markup (%)** column, change the revenue part of this change request by increasing the markup for the first line to 13%.

Project Task	Account Group	Cost Code	Inventory ID	Description	Quantity	UOM	Unit Cost	Ext. Cost	Price Markup (%)	Revenue Task	Revenue Account Group	Revenue Code	Unit Price	Ext. Price	Line Markup (%)	Line Amount	Vendor
08	SUBCON	08-100	SUBCON	Doors- Exterior	20.00	HOUR	52.00	1,040.00	7.00	08	REVENUE	08-000	55.64	1,112.80	13.00	1,246.34	DOORS
08	SUBCON	08-520	SUBCON	Windows- Wood	17.00	HOUR	50.00	850.00	7.00	08	REVENUE	08-000	53.50	909.50	12.00	1,018.64	DOORS

- 27.**Click **Save & Close**.

- 28.**Open the first change order created in this lesson (*Additional costs and revenue for the Italian Restaurant*).

- 29.**Add the remaining revenue part of the CR to the first of the previously created change orders as follows:

- On the **Change Requests** tab, click **Select Change Requests**.
- Select the unlabeled check box for the *French Style Window* change request.
- Click **Add Change Requests & Close**.

- 30.**Save the change order.

Notice how the revenue part of the CO has increased while the settings on the **Cost Budget** and **Commitments** tabs haven't changed.

Also, notice that the **Contract Time Change, Days** setting of the change order is cumulative; it is a sum of the attributes of the change requests comprised.

Change Orders

← SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr.:	000009 - Ad	Class:	EXTERNAL - External change orders	Revenue Budget Change Total:	8,531.12	
Status:	Open	Project:	ITALIAN2 - Italian Restaurant Project	Commitments Change Total:	2,045.00	
	<input checked="" type="checkbox"/> Hold	Customer:	ITALIAN01 - The Italian Company	Cost Budget Change Total:	1,380.00	
Change Date:	3/23/2020	External Reference Nbr.:		Gross Margin Amount:	7,151.12	
Approval Date:	3/23/2020	Revenue Change Nbr.:	0001	Gross Margin %:	83.82	
Contract Time ...	8			Change Request Cost Total:	3,270.00	
Description:	Additional costs and revenue for the Italian Restaurant				Change Request Line Total:	3,932.26
					Change Request Markup Total:	4,598.86
					Change Request Price Total:	8,531.12

CHANGE REQUESTS REVENUE BUDGET COST BUDGET COMMITMENTS DETAILED DESCRIPTION ATTRIBUTES APPROVAL DETAILS COMPLIANCE

↻ + × SELECT CHANGE REQUESTS ⌄ ⌋

Reference Nbr.	Status	Description	Cost Total	Line Total	Markup Total	Price Total	Contract Time Change, Days
000011	Closed	Wet subfloor needs drying, cleaning, and airing	1,380.00	1,656.16	2,983.54	4,639.70	4
000012	Closed	French Style Window	1,890.00	2,276.10	1,615.32	3,891.42	4

31. Verify that both CRs are closed.

32. Unlink the first previously created CR (*Wet subfloor needs drying, cleaning, and airing*) from the change order by simply deleting the line on the **Change Requests** tab of the Change Orders form. Save the change order.

33. On the Change Requests form, verify that the CR has the *Open* status again.

34. Select the **Hold** check box, and update the lines on the **Estimation** tab as follows:

- For the first line, change the quantity to 2.
- For the second line, change the quantity to 11.

35. Save the CR.

Change Requests

SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ CREATE CHANGE ORDER ACTIONS ▾ REPORTS ▾

Reference Nbr.:	000011 - We	Project:	ITALIAN2 - Italian Restaurant Project	Cost Total:	2,418.00	
Status:	On Hold	Customer:	ITALIAN01 - The Italian Company	Line Total:	2,890.98	
	<input checked="" type="checkbox"/> Hold	Project Issue:	IS-000001	Markup Total:	3,194.94	
* Change Date:	3/21/2019	RFI:	RF-000001	Gross Margin %:	60.27	
Contract Time ...	4	Change Order Nbr.:		Price Total:	6,085.92	
Ext. Ref. Nbr.:		Description:	Wet subfloor needs drying, cleaning, and airing			

ESTIMATION DETAILED DESCRIPTION MARKUPS APPROVAL DETAILS

↻ + × ⌄ ⌋ ⌁ All Records ⌄ ⌋

Project Task	Account Group	Cost Code	Inventory ID	Description	Quantity	UOM	Unit Cost	Ext. Cost	Price Markup (%)	Revenue Task	Revenue Account Group	Revenue Code	Unit Price	Ext. Price	Line Markup (%)
01	LABOR	01-900		Clean up	2.00	LS	1,000.00	2,000.00	10.00	01	REVENUE	01-000	1,100.00	2,200.00	8.00
03	SUBCON	03-350	SUBCON	Concrete- Finishes	11.00	HOUR	38.00	418.00	7.00	03	REVENUE	03-000	41.80	459.80	12.00

36. Clear the **Hold** check box, and click **Actions > Approve** on the form toolbar.

37. On the Change Orders form, link the CR to the same change order (*Additional costs and revenue for the Italian Restaurant*) once again, and save the change order.

Change Orders

← SAVE & CLOSE ⌂ + ⌂ K ⌂ < ⌂ > ⌂ RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr:	000009 - Ad	Class:	EXTERNAL - External change orders	Revenue Budget Change Total:	9,977.34	
Status:	Open	Project:	ITALIAN2 - Italian Restaurant Project	Commitments Change Total:	2,083.00	
	<input type="checkbox"/> Hold	Customer:	ITALIAN01 - The Italian Company	Cost Budget Change Total:	2,418.00	
Change Date:	3/23/2020	External Reference Nbr:		Gross Margin Amount:	7,559.34	
Approval Date:	3/23/2020	Revenue Change Nbr:	0001	Gross Margin %:	75.77	
Contract Time ...	8			Change Request Cost Total:	4,308.00	
Description:	Additional costs and revenue for the Italian Restaurant				Change Request Line Total:	5,167.08
					Change Request Markup Total:	4,810.26
					Change Request Price Total:	9,977.34

CHANGE REQUESTS REVENUE BUDGET COST BUDGET COMMITMENTS DETAILED DESCRIPTION ATTRIBUTES APPROVAL DETAILS COMPLIANCE

↻ + × SELECT CHANGE REQUESTS ⌂

Reference Nbr.	Status	Description	Cost Total	Line Total	Markup Total	Price Total	Contract Time Change, Days
000011	Closed	Wet subfloor needs drying, cleaning, and ai...	2,418.00	2,890.98	3,194.94	6,085.92	4
000012	Closed	French Style Window	1,890.00	2,276.10	1,615.32	3,891.42	4

38. Review the lines on the **Change Orders** and **Change Requests** tabs on the Projects (PM301000) form.

39. On the form toolbar, click **Actions > Validate Project Balances**.

40. Review the project's **Potential CO Quantity** and **Potential COAmount** values. Also, see **Last Revenue Change Nbr.** on the **Summary** tab—it has increased due to a revenue-affecting change order initiated for it.

Projects

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

* Project ID:	ITALIAN2	* Status:	Active	Assets:	0.00
Customer:	ITALIAN01 - The Italian Company	<input type="checkbox"/> Hold		Liabilities:	0.00
Template:	CONTM - Construction T&M Project			Income:	0.00
* Description:	Italian Restaurant Project				Expenses: 193,517.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES CHANGE ORDERS CHANGE REQUESTS UNION LOCALS ACTIVITY HISTORY EMPLOYEES

Project Task: 08 - OPENINGS ⌂ Group by Task

↻ + × VIEW COMMITMENT DETAILS VIEW TRANSACTIONS ⌂

* Sub Job	Cost Code	* Account Group	Description	Original UOM Budgeted Quantity	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
08	08-100	MATERIAL	Doors- Exterior	8.00 EA	1,000.0000	8,000.00	0.00	0.00	0.00	0.00	8.00	8,000.00
08	08-100	SUBCON	Doors- Exterior	28.00 EA	50.0000	1,400.00	20.00	1,040.00	0.00	0.00	28.00	1,400.00
08	08-200	MATERIAL	Doors- Interior	9.00 EA	750.0000	6,750.00	0.00	0.00	0.00	0.00	9.00	6,750.00
08	08-200	SUBCON	Doors- Interior	30.00 EA	50.0000	1,500.00	0.00	0.00	0.00	0.00	30.00	1,500.00
08	08-400	MATERIAL	Doors- Overhead	1.00 EA	2,000.0000	2,000.00	0.00	0.00	0.00	0.00	1.00	2,000.00
08	08-400	SUBCON	Doors- Overhead	16.00 EA	50.0000	800.00	0.00	0.00	0.00	0.00	16.00	800.00
08	08-520	MATERIAL	Windows- Wood	30.00 EA	525.0000	15,750.00	0.00	0.00	0.00	0.00	30.00	15,750.00
08	08-520	SUBCON	Windows- Wood	90.00 EA	50.0000	4,500.00	17.00	850.00	0.00	0.00	90.00	4,500.00
08	08-800	MATERIAL	Entrances, Storefronts, Curtain Walls	1.00 LS	24,500.0000	24,500.00	0.00	0.00	0.00	0.00	1.00	24,500.00
08	08-800	SUBCON	Entrances, Storefronts, Curtain Walls	80.00 HOUR	100.0000	8,000.00	0.00	0.00	0.00	0.00	80.00	8,000.00

Project Task: 03 - CONCRETE												
<input type="button" value="C"/> <input type="button" value="+"/> <input type="button" value="X"/> VIEW COMMITMENT DETAILS VIEW TRANSACTIONS <input type="button" value="H"/> <input type="button" value="X"/> <input type="button" value="↑"/>												
	*Sub Job	Cost Code	*Account Group	Description		Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity
>	0 0 03	03-100	MATERIAL	Concrete- Forming		1,500.00	LF	2.0000	3,000.00	0.00	0.00	0.00
0	0 0 03	03-100	SUBCON	Concrete- Forming		30.00	EA	40.0000	1,200.00	0.00	0.00	0.00
0	0 0 03	03-200	MATERIAL	Concrete- Reinforcing		7,000.00	SF	2.5000	17,500.00	0.00	0.00	0.00
0	0 0 03	03-200	SUBCON	Concrete- Reinforcing		50.00	EA	75.0000	3,750.00	0.00	0.00	0.00
0	0 0 03	03-300	MATERIAL	Concrete- CIP Slab		775.00	CY	100.0000	77,500.00	0.00	0.00	0.00
0	0 0 03	03-300	SUBCON	Concrete- CIP Slab		40.00	EA	50.0000	2,000.00	0.00	0.00	0.00
0	0 0 03	03-350	MATERIAL	Concrete- Finishes		7,000.00	SF	1.2000	8,400.00	0.00	0.00	0.00
0	0 0 03	03-350	SUBCON	Concrete- Finishes		16.00	EA	40.0000	640.00	11.00	418.00	0.00

Project Task: 01 - GENERAL REQUIREMENTS														
<input type="button" value="C"/> <input type="button" value="+"/> <input type="button" value="X"/> VIEW COMMITMENT DETAILS VIEW TRANSACTIONS <input type="button" value="H"/> <input type="button" value="X"/> <input type="button" value="↑"/>														
	*Sub Job	Cost Code	*Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
>	0 0 01	01-300	OTHEREXP	Permit	1.00	EA	15,601.0000	15,601.00	0.00	0.00	0.00	0.00	1.00	15,601.00
0	0 0 01	01-311	LABOR	Operations- Project Manager	1.00	LS	15,000.0000	15,000.00	0.00	0.00	0.00	0.00	1.00	15,000.00
0	0 0 01	01-313	LABOR	Operations- Superintendent	1.00	LS	39,000.0000	39,000.00	0.00	0.00	0.00	0.00	1.00	39,000.00
0	0 0 01	01-314	LABOR	Operations- Crew Leader	1.00	LS	20,000.0000	20,000.00	0.00	0.00	0.00	0.00	1.00	20,000.00
0	0 0 01	01-330	OTHEREXP	Design Fees	1.00	EA	37,500.0000	37,500.00	0.00	0.00	0.00	0.00	1.00	37,500.00
0	0 0 01	01-505	TRAVEL	Mobilization	1.00	EA	5,000.0000	5,000.00	0.00	0.00	0.00	0.00	1.00	5,000.00
0	0 0 01	01-510	OTHEREXP	Telephone	1.00	EA	950.0000	950.00	0.00	0.00	0.00	0.00	1.00	950.00
0	0 0 01	01-600	OTHEREXP	Insurance	1.00	LS	7,500.0000	7,500.00	0.00	0.00	0.00	0.00	1.00	7,500.00
0	0 0 01	01-900	LABOR	Clean up	1.00	LS	10,000.0000	10,000.00	0.00	2,000.00	0.00	0.00	1.00	10,000.00

Projects

Project ID:		ITALIAN2	Status:	Active	Assets:	0.00
Customer:		ITALIAN01 - The Italian Company			Liabilities:	0.00
Template:		CONTM - Construction T&M Project			Income:	0.00
Description:		Italian Restaurant Project			Expenses:	191,517.00
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES
CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT	S
Project Task:				Group by Task	Pending Invoice Amount Total:	0.00
VIEW TRANSACTIONS						
			Description	Original Budgeted Quantity	UOM	Unit Rate
>				0.00	0.0000	0.00
		01	01-000 REVENUE	0.00	0.0000	0.00
		01	01-300 REVENUE Permit	0.00	EA	20,281.30
		01	01-311 REVENUE Operations- Project Manager	0.00	EA	19,800.00
		01	01-313 REVENUE Operations- Superintendent	0.00	EA	50,700.00
		01	01-314 REVENUE Operations- Crew Leader	0.00	EA	28,000.00
		01	01-330 REVENUE Design Fees	0.00	EA	48,750.00
		01	01-505 REVENUE Mobilization	0.00	EA	8,500.00
		01	01-510 REVENUE Telephone	0.00	EA	1,235.00
		01	01-500 REVENUE Insurance	0.00	EA	9,750.00
		01	01-900 REVENUE Clean up	0.00	EA	13,000.00
		02	02-000 REVENUE	0.00	0.0000	0.00
		03	03-000 REVENUE	0.00	0.0000	0.00
		03	03-100 REVENUE Concrete- Forming	0.00	EA	5,460.00
		03	03-200 REVENUE Concrete- Reinforcing	0.00	EA	27,825.00
		03	03-300 REVENUE Concrete- G/F Slab	0.00	EA	103,350.00
		03	03-350 REVENUE Concrete- Finishes	0.00	EA	11,752.00
		04	04-220 REVENUE Masonry- Block	0.00	EA	73,125.00
		04	04-700 REVENUE Masonry- Composite Wall	0.00	EA	19,800.00
		06	06-100 REVENUE Carpentry- Rough	0.00	EA	10,367.50
		06	06-110 REVENUE Framing- Wood	0.00	EA	64,480.00
		06	06-160 REVENUE Framing- Siding	0.00	EA	6,207.50
		06	06-190 REVENUE Fabricated- Wood Trusses	0.00	EA	49,400.00
		06	06-250 REVENUE Finish- Paneling	0.00	EA	9,360.00
		06	06-440 REVENUE Woodwork- Ornamental	0.00	EA	17,517.50
		07	07-200 REVENUE Insulation	0.00	EA	34,157.50
		07	07-300 REVENUE Roofing- Steep Slope	0.00	EA	132,498.00

Projects

Project ID: ITALIAN2

Customer: ITALIAN01 - The Italian Company

Template: CONTM - Construction T&M Project

Description: Italian Restaurant Project

SUMMARY **TASKS** **REVENUE BUDGET** **COST BUDGET** **BALANCES**

PROJECT PROPERTIES

Revenue Budget Level:	Task and Cost Code
Cost Budget Level:	Task and Cost Code
* Start Date:	10/25/2019
End Date:	
Project Manager:	EP00000015 - Bill Owen
Site Address:	2510 Market Street, SF
Last Revenue Change	0001
Currency Rate Type:	

Allow the addition of Account Groups not associated with this project

Change Order Workflow

Restrict Employees

Using Custom Attributes for Change Orders

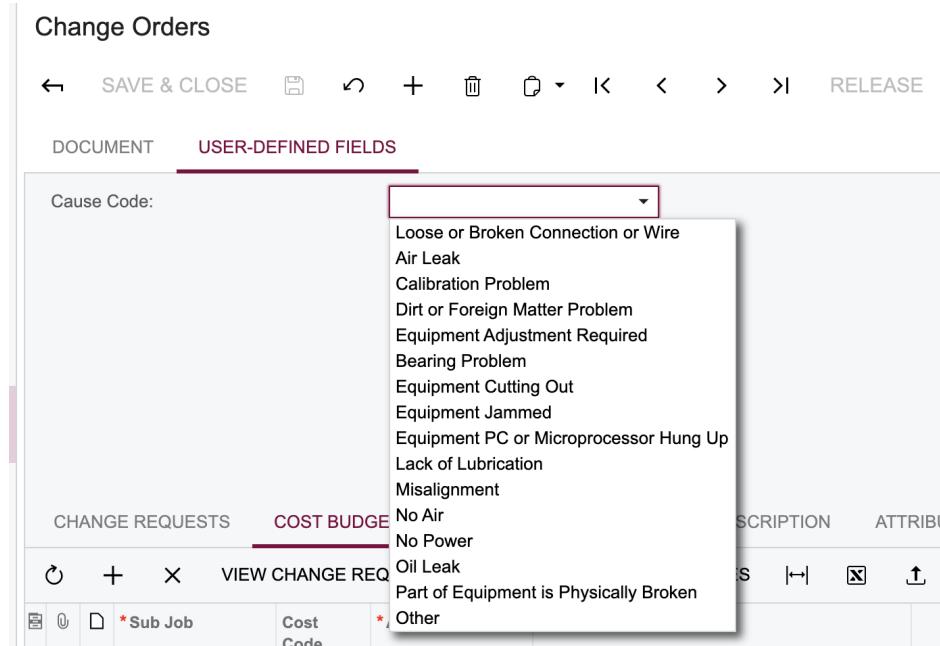
If you want to add a constant attribute that will be available for all change orders, create a user-defined attribute as follows:

1. Sign in to the system as an administrator.
2. On the Change Orders (PM308000) form, open the second change order (*Extra costs*), which belongs to the *INTERNAL* class. On the **Attributes** tab, specify the necessary attribute values, as follows:
 - a. For the *Project Burden Percentage* attribute, in the **Value** column, specify 1.25.
 - b. For the *Cause Code* attribute, in the **Value** column, select *Misalignment*.

Attribute	Required	Value
Project Burden ...	<input type="checkbox"/>	1.25
Cause Code	<input type="checkbox"/>	Misalignment <ul style="list-style-type: none"> Loose or Broken Connection or Wire Air Leak Calibration Problem Dirt or Foreign Matter Problem Equipment Adjustment Required Bearing Problem Equipment Cutting Out Equipment Jammed Equipment PC or Microprocessor Hung Up Lack of Lubrication Misalignment No Air No Power

- c. Click **Save** on the form toolbar.
3. Create a user-defined attribute for the change order by doing the following:
 - a. Click **Customization > Manage User-Defined Fields** on the form title bar.
 - b. On the Edit User-Defined Fields: Change Orders (CS205020) form that opens, click **Add User-Defined Field** on the form toolbar.
 - c. In the **User-Defined Field Parameters** dialog box that opens, in the **Attribute ID** box, select *FSCAUSE*, and click **OK**.

- d. Go back to the Change Orders form and notice that the **User-Defined Fields** tab has appeared, which contains the **Cause Code** box.



Releasing and Reversing a Change Request

- On the Change Orders form, select the first of the previously created change orders (*Additional costs and revenue for the Italian Restaurant*) and click **Reports > Print Change Order** on the form toolbar.

Only revenue budget lines are reflected on the printed form.



SweetLife Head Office and Wholesale Center
69 Main St, Flushing
New York, NY, 11367
Phone: +1 917 341 8776

CHANGE ORDER

Reference Nbr.: 000009
Change Date: 23-Mar-2020
Completion Date: 23-Mar-2020
Customer ID: ITALIAN01
Currency: USD
Project Reference Nbr: ITALIAN2
Project CO Nbr: 0001
Contract Time Change, Days: 8
Description: Additional costs and revenue for the Italian Restaurant

REVENUE BUDGET										
NO.	PROJECT	COST CODE	DESCRIPTION	BUDGETED AMOUNT	PREV APPROVED CO AMT	CURRENT CO QTY	UOM	UNIT RATE	CURRENT CO AMOUNT	REVISED AMOUNT
1	GENERAL REQUIREMENTS	01000		0.00		2.00	LS	0.00	2,376.00	2,376.00
2	SITEWORK	02000		0.00		0.00		0.00	4,810.26	4,810.26
3	CONCRETE	03000		0.00		11.00	HOUR	0.00	514.98	514.98
4	OPENING S	08000		0.00		37.00	HOUR	0.00	2,276.10	2,276.10

Reference Nbr.: 000009 Original Revenue Budget Total: 2,186,984.80 Previously Approved Project CO Total: 0.00 Prior Revised Revenue Budget Total (USD): 2,186,984.80 Change Order Total (USD): 9,977.34 Revised Revenue Budget Total (USD): 2,196,982.14

CONTRACTOR	OWNER
SweetLife Head Office and Wholesale Center 69 Main St, Flushing New York, NY, 11367 Phone: +1 917 341 8776	The Italian Company 2510 Market Street San Francisco, CA, 87556
23-Mar-2020	23-Mar-2020
(signature)	(signature)

2. Release the change order.
3. On the Projects (PM301000) form, for the **ITALIAN2** project, see how the **Potential CO** values became **Budgeted CO** values and altered the **Revised Budgeted** values.

Projects

SAVE & CLOSE + - X K < > RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾ INQUIRIES ▾ REPORTS

Project ID:	ITALIAN2	Status:	Active	Assets:	0.00								
Customer:	ITALIAN01 - The Italian Company	Template:	CONTM - Construction T&M Project	Liabilities:	0.00								
Description:	Italian Restaurant Project			Income:	0.00								
				Expenses:	193,517.00								
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEE		
Project Task: <input type="text"/> <input type="button" value="Search"/>			<input type="checkbox"/> Group by Task		Pending Invoice Amount Total: 0.00								
<input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="View Transactions"/> <input type="button" value="Print"/> <input type="button" value="Import"/> <input type="button" value="Export"/> <input type="button" value="All Records"/>													
Line Index	*Account Group	Description		Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
1-000	REVENUE	GENERAL REQUIREMENTS		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	2,376.00	0.00	2,376.00
2-000	REVENUE	SITEWORK		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	4,811.06	0.00	4,811.06
3-000	REVENUE	CONCRETE		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	519.66	0.00	519.66
4-000	REVENUE	MASONRY		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-000	REVENUE	METALS		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-000	REVENUE	WOODS, PLASTICS, COMPOSITES		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-000	REVENUE	THERMAL AND MOISTURE PROTECTION		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-000	REVENUE	OPENINGS		0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	2,276.10	0.00	2,276.10
				0.00	HOUR	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Look at the changes in the committed values on the Commitments (PM306000) form.

Commitments

CREATE EXTERNAL COMMITMENT

Project:	ITALIAN2 - Italian Restaurant Project	Revised Quant...:	131.00	Received Quantity:	110.00							
Account Group:	SUBCON - Project Subcontract	Revised Amount:	53,336.00	Invoiced Quantity:	110.00							
Sub Job/Schedule of Values:	<input type="text"/>	Open Quantity:	21.00	Invoiced Amount:	47,555.00							
Cost Code:	<input type="text"/>	Open Amount:	5,781.00									
Inventory ID:	<input type="text"/>											
Related Document Type:	All Commitments											
<input type="button" value="All Records"/> <input type="button" value="COST COMMITMENTS"/>												
Type	*Project	*Account Group	*Sub Job/Schedule of Values	Cost Code	External Ref. Nbr	UOM	Original Committed Quantity	Original Committed Amount	Committed CO Quantity	Committed CO Amount	Revised Committed Quantity	Revised Committed Amount
> <input type="checkbox"/> Internal	ITALIAN2	SUBCON	16	16-520		EA	0.00	14,899.00	0.00	0.00	0.00	14,899.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-350		EA	0.00	0.00	11.00	418.00	11.00	418.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	16	16-510		EA	0.00	32,144.00	0.00	0.00	0.00	32,144.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-100		EA	25.00	875.00	4.00	140.00	29.00	1,015.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-200		EA	40.00	2,880.00	0.00	0.00	40.00	2,880.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-300		EA	35.00	1,470.00	0.00	0.00	35.00	1,470.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-350		EA	10.00	330.00	0.00	0.00	10.00	330.00
< <input type="checkbox"/> Internal	ITALIAN2	SUBCON	03	03-100		EA	0.00	0.00	6.00	180.00	6.00	180.00

5. Look through the commitments and review the **Change Orders** tab on the Purchase Orders (PO301000) and Subcontracts (SC301000) forms.

6. On the Change Orders form, open the first change order (*Additional costs and revenue for the Italian Restaurant*) and click **Actions** > **Reverse** on the form toolbar.

As a result, a reversing change order is generated.

7. Clear the **Hold** check box for the reversing change order, and then click **Release** on the form toolbar.

8. Notice the reference to the original change order that is being reversed by this one.

Change Orders

← SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ ⌊ RELEASE ACTIONS ▾ REPORTS ▾ 00:00:08

DOCUMENT **USER-DEFINED FIELDS**

Reference Nbr:	000011 - Ad	Class:	EXTERNAL - External change orders	Revenue Budget Change Total:	-9,977.34
Status:	Closed	Project:	ITALIAN2 - Italian Restaurant Project	Commitments Change Total:	-2,083.00
	<input type="checkbox"/> Hold	Customer:	ITALIAN01 - The Italian Company	Cost Budget Change Total:	-2,418.00
Change Date:	3/23/2020	External Reference Nbr:		Gross Margin Amount:	-7,559.34
Approval Date:	3/23/2020	Revenue Change Nbr:	N/A	Gross Margin %:	75.77
Contract Time ...	8	Reverse Status:	Reversing	Change Request Cost Total:	4,308.00
Description:	Additional costs and revenue for the Italian Restaurant			Change Request Line Total:	5,167.08
				Change Request Markup Total:	4,810.26
				Change Request Price Total:	9,977.34

CHANGE REQUESTS **REVENUE BUDGET** **COST BUDGET** **COMMITMENTS** **DETAILED DESCRIPTION** **ATTRIBUTES** **APPROVAL DETAILS** **COMPLIANCE**

↻ + × VIEW CHANGE REQUEST DETAILS SELECT BUDGET LINES ⌄ ⌋ ⌈ ⌉ ⌊ ⌋ ⌊

* Sub Job	Cost Code	* Account Group	Description	Change Request Total Quantity	Quantity	UOM	Unit Rate	Change Request Total Amount	Amount
> 01	01-900	LABOR	Clean up	2.00	-2.00	LS	10,000.0000	2,000.00	-2,000.00
> 03	03-350	SUBCON	Concrete- Finishes	11.00	-11.00	HOUR	40.0000	418.00	-418.00

9. Release the second of the previously created change orders (*Extra costs*).

10. On the Projects (PM301000) form, review the project balances.

Projects

← SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ ⌊ RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

* Project ID:	ITALIAN2	* Status:	Active	Assets:	0.00
Customer:	ITALIAN01 - The Italian Company	<input type="checkbox"/> Hold		Liabilities:	0.00
Template:	CONTM - Construction T&M Project			Income:	0.00
* Description:	Italian Restaurant Project			Expenses:	193,517.00

SUMMARY **TASKS** **REVENUE BUDGET** **COST BUDGET** **BALANCES** **COMMITMENTS** **INVOICES** **CHANGE ORDERS** **CHANGE REQUESTS** **UNION LOCALS** **ACTIVITY HISTORY** **EMPLOYEES**

Project Task: Group by Task

↻ + × VIEW COMMITMENT DETAILS VIEW TRANSACTIONS ⌄ ⌋ ⌈ ⌉ ⌊ ⌋ ⌊

* Sub Job	Cost Code	* Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Budgeted CO Quantity	Budgeted CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount
> 08	08-100	SUBCON	Doors- Exterior	28.00	EA	50.0000	1,400.00	0.00	0.00	20.00	1,040.00	48.00	2,440.00
> 08	08-520	SUBCON	Windows- Wood	90.00	EA	50.0000	4,500.00	0.00	0.00	17.00	850.00	107.00	5,350.00

Lesson 11: Drawing Logs

A drawing log is a collection of drawings and designs available on a project. A member of the project team can create a drawing log, provide all relative information that describes or is associated with the document, and attach a drawing or a group of drawings to it. If any changes have been made to the initial drawing, the team member can update the drawing by uploading a new file version to the existing drawing log or creating a new revision of the drawing. If the attached drawing is an update of the previous drawing, the user should specify the revision number that indicates the up-to-date version of the drawing.

A drawing log can be linked to a request for information (RFI). When emailing an RFI, the user can attach drawings from the linked drawing log to the email. Also, the system allows users to attach drawing logs to project issues which help users to provide additional information or description for the issue.

Learning Objectives

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

- Configure drawing logs and set up disciplines and statuses
- Create drawing logs
- Upload and download images linked to drawing logs
- Link requests for information and project issues to existing drawing logs
- Email drawings and requests for information
- Create revisions of drawing logs

Story

An architect prepares a floor plan blueprint for the HOTEL project. An RFI is received to make sure that the storage room is next to the service elevator. Based on that RFI, a new revision of the blueprint should be created and linked to the original drawing, which should be marked as obsolete.

System Preparation

Sign in to the system by using the *owen* login and *123* password.

Configuring Drawing Logs

On the Drawing Log Preferences (PJ102000) form, do the following:

1. On the **General** tab, make sure that the *DRAWINGLOG* numbering sequence is specified in the **Drawing Log Numbering Sequence** box.
2. On the **Disciplines** tab, make sure that the predefined list of disciplines is available and the *Architectural* discipline is active.

A discipline is a field or area in construction that may be used for categorizing drawing log documents.

- On the **Status** tab, rename the default status from *N/A* to *Active* and add the following statuses:

- Inactive*: The document is obsolete.
- Submitted*: The document needs to be reviewed by the project manager.
- Accepted*: The project manager has accepted the document.
- Rejected*: The project manager has rejected the document.

The default status is a predefined status that cannot be deleted from the system but can be modified if needed. This status is assigned by default to a new document.

Drawing Log Preferences ☆

Status		Description
Active		Default status
Inactive		
Submitted		
Accepted		
Rejected		

- On the **Attributes** tab, add the *DLCATEGORY* attribute.

This attribute will allow you to track documents the belong to a particular category, such as site plans, electrical plans, or plumbing plans.

Drawing Log Preferences ☆

Active	Attribute ID	Description	Sort Order	Required	Internal	Control Type	Default Value
<input checked="" type="checkbox"/>	DLCATE...	Document Category		<input type="checkbox"/>	<input type="checkbox"/>	Combo	

5. Click **Save** on the form toolbar to save the settings

Creating a Drawing Log

On the Drawing Log (PJ303000) form, do the following:

1. Click **Add New Record** on the form toolbar, and create a drawing log with the following settings:

- **Project:** HOTEL
- **Discipline:** Architectural
- **Owner:** Todd Bloom (project manager)
- **Drawing Number:** 1
- **Title:** Floor plan
- **Description:** Floor plan blueprint

Note that if the created document is a draft, you can mark it as a sketch by entering the sketch label in the **Sketch** box.

2. On the **Attributes** tab, select the *Site plan* value for the *Document category* attribute.
3. Click **Save** on the form toolbar.

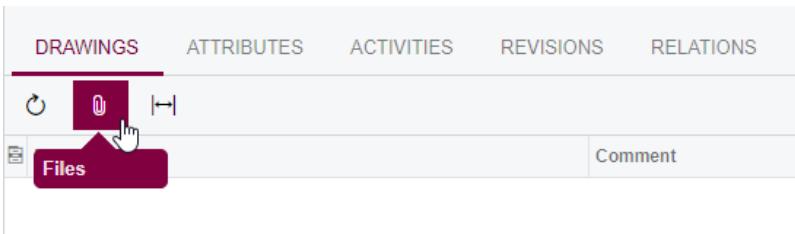
Note that the **Current** check box in the Summary area is automatically selected for the drawing log to mark it as up-to-date.

Drawing Log

The screenshot shows the 'Drawing Log' form with the 'ATTRIBUTES' tab selected. The form includes fields for Drawing Log ID (DL-000003), Project (HOTEL - The Beach Hotel an), Sub Job, Discipline (Architectural), Owner (EP00000002 - Todd Bloom), Drawing Number (1), Revision, Drawing Date (12/26/2019), Received Date (12/26/2019), Status (Active), and a checked 'Current' checkbox. Below these are fields for Title (Floor plan) and Description (Floor plan blueprint). The table toolbar at the bottom has icons for Refresh, Undo, Redo, New, Delete, Save, and Print.

Attribute	Required	Value
Document Category	<input type="checkbox"/>	Site plan

- On the table toolbar of the **Drawings** tab, click Files and attach the *Floor Plan Revision 1.jpg* image, which is provided with the training materials.



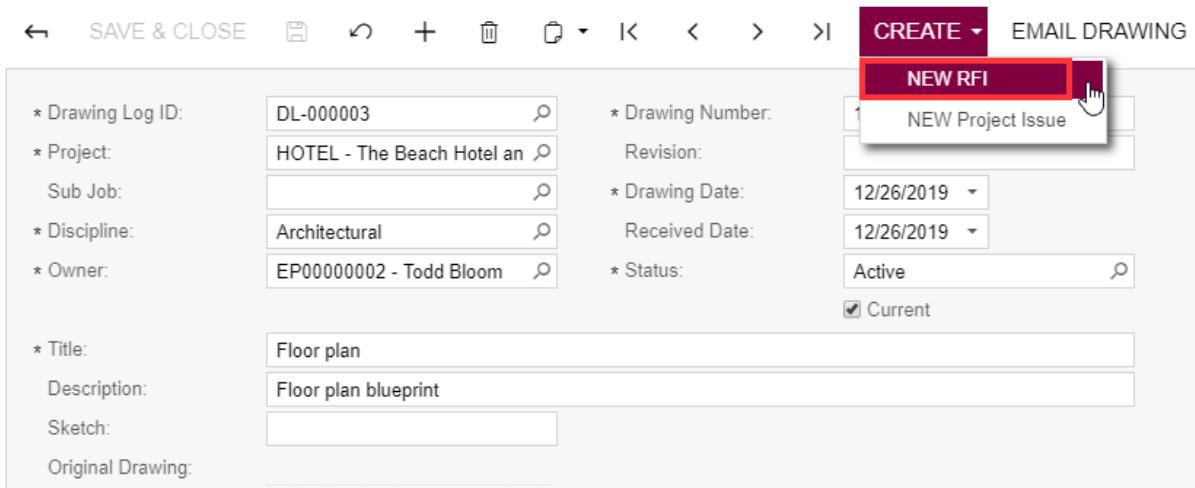
Note that if there are multiple images attached to a drawing log document, you can download them all at once as a zip file by clicking **Download Zip** on the form toolbar of the Drawing Log (PJ303000) form or by selecting the unlabeled check box for the needed drawing log on the Drawing Logs (PJ403000) form and then clicking **Download Zip** on the form toolbar.

Linking an RFI to a Drawing Log

To create an RFI directly from a drawing log, do the following.

- While you are still viewing the *Floor plan* record on the Drawing Log (PJ303000) form, click **Create > NEW RFI** on the form toolbar.

Drawing Log



The screenshot shows the 'Drawing Log' application interface. At the top, there are standard file operations: 'SAVE & CLOSE', 'REDO', 'UNDO', 'CREATE', 'EMAIL DRAWING'. A red box highlights the 'CREATE' button, which has a dropdown menu open. The menu item 'NEW RFI' is also highlighted with a red box and has a small hand cursor icon over it. Below the menu, the main form fields are visible:

* Drawing Log ID:	DL-000003	* Drawing Number:	
* Project:	HOTEL - The Beach Hotel an	Revision:	
Sub Job:		* Drawing Date:	12/26/2019
* Discipline:	Architectural	Received Date:	12/26/2019
* Owner:	EP00000002 - Todd Bloom	* Status:	Active
<input checked="" type="checkbox"/> Current			
* Title:	Floor plan		
Description:	Floor plan blueprint		
Sketch:			
Original Drawing:			

- On the Request for Information (PJ301000) form that opens, specify the following settings:

- Contact:** Anna Johnson
- Class ID:** CNSTDOCDEF
- Summary:** Storage room should be next to service elevator
- Owner:** Todd Bloom

Note that the project is copied from the original drawing log.

Leave the **Schedule Impact**, **Cost Impact**, and **Design Change** check boxes cleared because the schedule, cost, and design won't be affected. (If the RFI had an impact on any of those, you'd need to convert the RFI to a change request.)

Request for Information ☆

← SAVE & CLOSE ⌂ + ⌂ K < > ⌂ EMAIL RFI ⌂ PRINT RFI

* Project:	HOTEL - The Beach Hotel an <input type="button" value="🔍"/>	* RFI ID:	<NEW> <input type="button" value="🔍"/>
Sub Job:	<input type="button" value="🔍"/>	* Creation Date:	12/26/2019 <input type="button" value="▼"/>
Business Account:	<input type="button" value="🔍"/>	Created By:	admin admin
* Contact:	Anna Johnson <input type="button" value="🔍"/>	* Owner:	Todd Bloom <input type="button" value="🔍"/>
* Class ID:	CNSTDOCDEF - Construction <input type="button" value="🔍"/> <input type="button" value="✎"/>	Answer Due Date:	12/31/2019 <input type="button" value="▼"/>
* Summary:	Storage room should be next to service elevator		
	<input type="checkbox"/> Incoming	Workgroup:	<input type="button" value="🔍"/>
* Status:	New <input type="button" value="▼"/>	<input type="checkbox"/> Schedule Impact	
Reason:	N/A <input type="button" value="▼"/>	<input type="checkbox"/> Cost Impact	
Priority:	Medium <input type="button" value="🔍"/>	<input type="checkbox"/> Design Change	
Documentation Link:	<input type="button" value=""/>		
Spec. section:	<input type="button" value=""/>		
Converted From:	Converted To:		

3. On the **Details** tab, specify the following:

- **Question** pane: Is the storage room close to the service elevator?
- **Answer** pane: No, the blueprint should be updated.

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

Note that on the **Drawings** tab, a link to the original drawing log has appeared. Click that link.

Request for Information ☆

← SAVE & CLOSE ⌂ + ⌂ K < > ⌂ EMAIL RFI PRINT RFI CONVERT TO

* Project:	HOTEL - The Beach Hotel an <input type="text"/>	* RFI ID:	RF-000004 <input type="text"/>	
Sub Job:	<input type="text"/>	* Creation Date:	12/26/2019 <input type="text"/>	
Business Account:	<input type="text"/>	Created By:	admin admin	
* Contact:	Anna Johnson <input type="text"/>	* Owner:	Todd Bloom <input type="text"/>	
* Class ID:	CNSTDOCDEF - Construction <input type="text"/>	Answer Due Date:	12/31/2019 <input type="text"/>	
* Summary:	Storage room should be next to service elevator			
	<input type="checkbox"/> Incoming	Workgroup:	<input type="text"/>	
* Status:	New <input type="text"/>	<input type="checkbox"/> Schedule Impact		
Reason:	N/A <input type="text"/>	<input type="checkbox"/> Cost Impact		
Priority:	Medium <input type="text"/>	<input type="checkbox"/> Design Change		
Documentation Link:	<input type="text"/>			
Spec. section:	<input type="text"/>			
Converted From:	Converted To:			
DETAILS ATTRIBUTES ACTIVITIES RELATIONS DRAWINGS				
LINK DRAWING UNLINK DRAWING VIEW ATTACHMENTS 				
Drawing Log ID	Project	Sub Job	Discipline	Drawing Number
> <input type="checkbox"/> DL-000003	HOTEL	Architectural		1

5. On the Drawing Log (PJ303000) form that opens, click the **Relations** tab.

Note that a link to the related RFI has appeared in the table. Click that link.

(Note that if you have associated an RFI with a wrong drawing log, you can unlink the RFI from the drawing log by selecting the unlabeled check box for the RFI and clicking **Unlink** on the table toolbar.)

Drawing Log

SAVE & CLOSE CREATE EMAIL DRAWING DOWNLOAD ZIP NEW REVISION/SKETCH

* Drawing Log ID:	DL-000003	* Drawing Number:	1																		
* Project:	HOTEL - The Beach Hotel an	Revision:																			
Sub Job:		* Drawing Date:	12/26/2019																		
* Discipline:	Architectural	Received Date:	12/26/2019																		
* Owner:	EP00000002 - Todd Bloom	* Status:	Active																		
<input checked="" type="checkbox"/> Current																					
* Title:	Floor plan																				
Description:	Floor plan blueprint																				
Sketch:																					
Original Drawing:																					
DRAWINGS ATTRIBUTES ACTIVITIES REVISIONS RELATIONS																					
<table border="1"> <thead> <tr> <th></th> <th><input type="checkbox"/> Document ID</th> <th>Document Type</th> <th>Project</th> <th>Sub Job</th> <th>Status</th> <th>Priority</th> <th>Summary</th> <th>Created By</th> </tr> </thead> <tbody> <tr> <td>></td> <td><input type="checkbox"/> RF-000004</td> <td>Request For Infor...</td> <td>HOTEL</td> <td>New</td> <td>Medium</td> <td></td> <td>Storage r...</td> <td>admin</td> </tr> </tbody> </table>					<input type="checkbox"/> Document ID	Document Type	Project	Sub Job	Status	Priority	Summary	Created By	>	<input type="checkbox"/> RF-000004	Request For Infor...	HOTEL	New	Medium		Storage r...	admin
	<input type="checkbox"/> Document ID	Document Type	Project	Sub Job	Status	Priority	Summary	Created By													
>	<input type="checkbox"/> RF-000004	Request For Infor...	HOTEL	New	Medium		Storage r...	admin													

6. On the form toolbar of the Request for Information (PJ301000) form that opens, click **Email RFI**.

The Email Activity form opens. You can click Attach on the form toolbar and attach image files from the drawing log to the email that will be associated with the RFI.

Email Activity

SAVE & CLOSE SEND REPLY ACTIONS ATTACH

* From: System Request For Information

Attach Files

	<input type="checkbox"/> File Name	File Source	Drawing Log ID	Drawing Number	Revision	Current
>	<input checked="" type="checkbox"/> Floor Plan Revi...	Drawing Logs	DL-000003	1		<input checked="" type="checkbox"/>

ATTACH CANCEL

Note that an existing RFI or project issue may be linked to a drawing log, as well as an existing drawing log may be linked to an RFI or project issue.

Creating a Revision

Based on the received RFI, you need to create a revision of the drawing log with the updated floor plan.

1. On the form toolbar of the Drawing Log (PJ303000) form, for the *Floor plan* record, click **New Revision/Sketch**.
2. In the **Revision** box, specify the number of the revision: 1.
3. In the **Description** box, type the following: *Revised floor plan blueprint*.
4. On the **Attributes** tab, select *Site plan* for the *Document category* attribute.
5. Save the record. Note that in the **Original Drawing** box, a link with the ID of the initial drawing document is displayed.

The screenshot shows the 'Drawing Log' form with the following details:

- Drawing Log ID:** DL-000002
- Project:** HOTEL - The Beach Hotel and C
- Sub Job:** Architectural
- Discipline:** Architectural
- Owner:** EP00000015 - Bill Owen
- Title:** Floor plan
- Description:** Revised floor plan blueprint
- Sketch:** (empty)
- Original Drawing:** DL-000001 (highlighted with a red border)
- Drawing Number:** 1
- Revision:** 1
- Drawing Date:** 10/16/2019
- Received Date:** 10/16/2019
- Status:** Active (with Current checked)

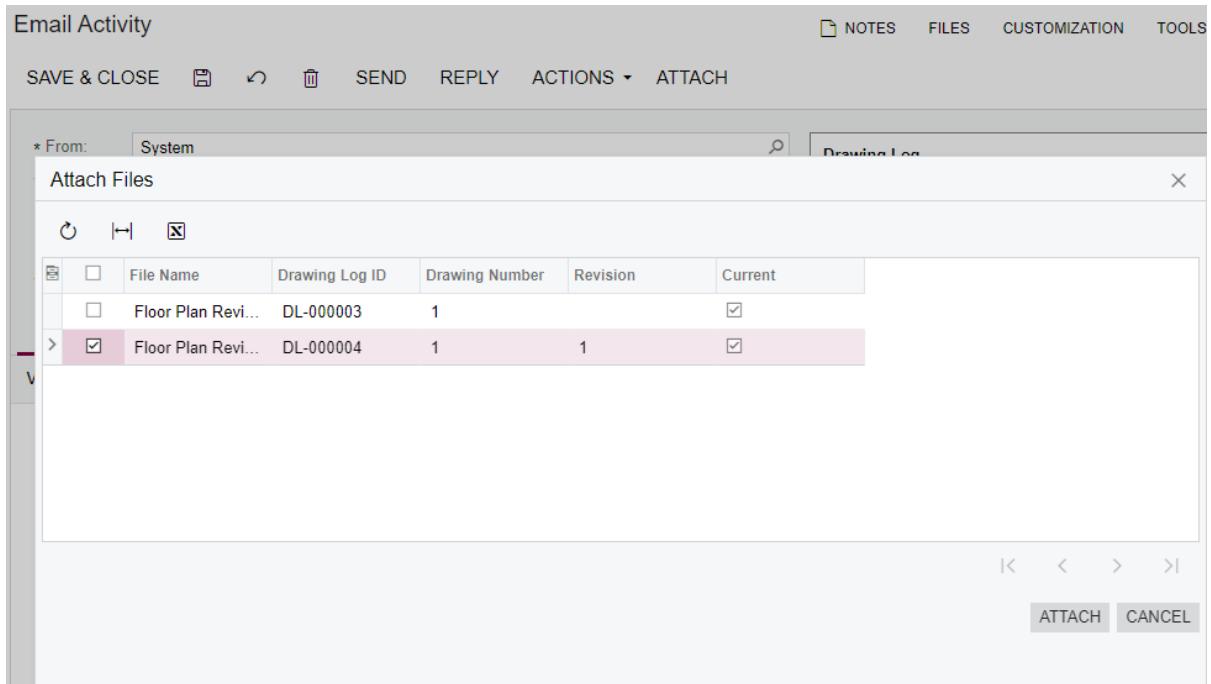
The 'DRAWINGS' tab is selected, showing a table with one row:

File Name	Comment	Current	Created By	Creation Time
> Floor Plan Revision 2.jpg		<input checked="" type="checkbox"/>	Pam Brawner	10/25/2019 11:20 A

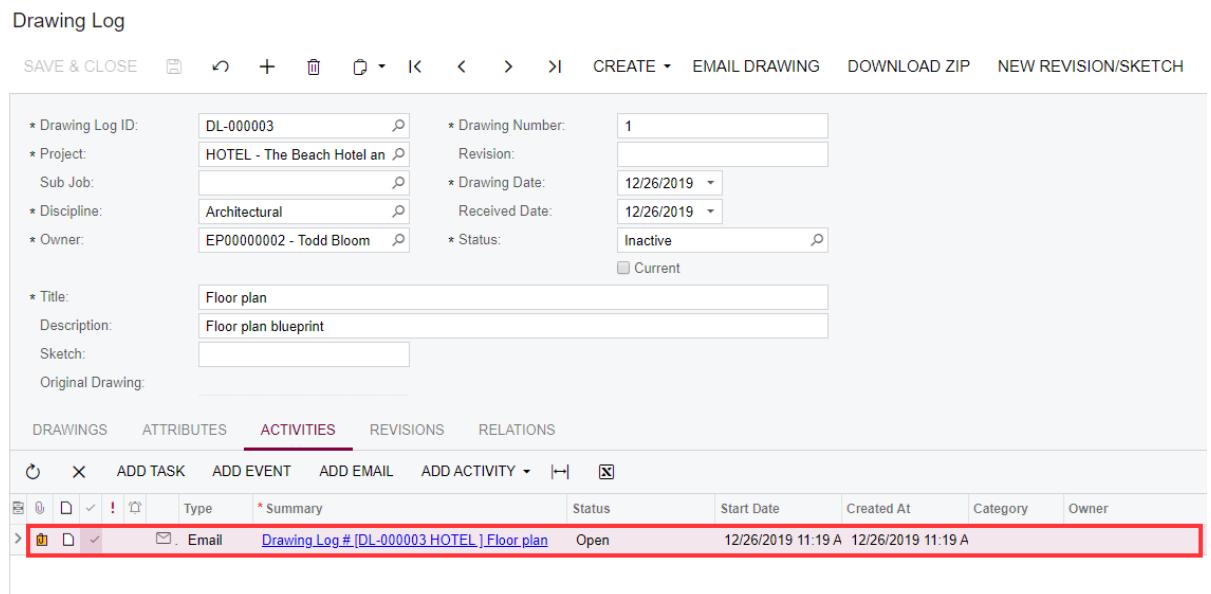
6. On the table toolbar of the **Drawings** tab, click **Files** and attach the *Floor Plan Revision 2.jpg* image, which is provided with the training materials.
7. Click the link in the **Original Drawing** box.
8. In the Summary area of the form, select *Inactive* in the **Status** box and clear the **Current** check box to mark the original drawing log as obsolete.
9. Click **Email Drawing** on the form toolbar.

To be able to email a drawing, first, you need to save the email. Then you need to select the drawing that you want to attach to the email and click **Send** on the form toolbar.

The list of images that can be attached to the email includes all revisions of the drawing log. (For instance, you may need to attach the current drawing and its previous revision for comparison.)



Review the **Activities** tab where all emails associated with the drawing log are listed.



Running a Report

Run the Drawing Log Details (PJ653000) report for the *HOTEL* project.

Drawing Log Details					
Company:	Company	Branch:	HEADOFFICE	Page:	1 of 1
User:	admin admin			Date:	12/26/2019 11:22
Project Manager:	<u>Bill Owen</u>				
Project:	HOTEL-The Beach Hotel and Condominiums				
Discipline:	Architectural				
Drawing #	Title	Received Date	Revision	Sketch	Original Drawing
DL-000001	Site plan construction-site-drawing.jpg	3/1/2019			
DL-000002	Roofing spec roofing gif	3/1/2019			
DL-000004	Floor plan Floor Plan Revision 2.jpg	12/26/2019	1		DL-000003

Lesson 12: Project Issues

Project issues are used for tracking and reporting on all activities related to various issues discovered on a job. Based on a project issue, a request for information or change request may be created.

Learning Objectives

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

- Configure project management classes that may be used for project issues
- Define project issue types
- Report project issues and convert them to change requests or requests for information
- Mass-assign project issues to owners

Story

On the project site, the subcontractor put a hole in the wall by accident. The accident should be recorded, and the hole should be patched as soon as possible. This leads to a new change request for the project.

Also, at some place, the paving should be replaced and laid differently due to unstable terrain. The site plan should be updated accordingly.

System Preparation

Sign in to the system by using the *admin* login and *123* password.

Configuring Project Issues

- On the Project Management Classes (PJ201000) form, make sure that the *FIELD* class exists and the **Project Issues** check box is selected for it so that this class can be used for project issues.

Project Management Classes

← SAVE & CLOSE ⌘ + ⌘ - ⌘ K ⌘ < ⌘ > ⌘ I

* Project Management Class ID:	FIELD - Field Report	USE FOR
* Description:	Field Report	<input checked="" type="checkbox"/> Project Issues <input type="checkbox"/> Requests For Information
<input type="button" value="DETAILS"/> <input type="button" value="ATTRIBUTES"/> <input type="button" value="PRIORITIES"/>		
REQUEST FOR INFORMATION SETTINGS		
Answer Days Default: <input type="text" value="0"/>		
PROJECT ISSUE SETTINGS		
Answer Days Default: <input type="text" value="5"/>		

2. On the **General Settings** tab of the Project Management Preferences (PJ101000) form, do the following:
- Make sure that the *PROISSUE* numbering sequence is specified in the **Project Issue Numbering Sequence** box.
 - In the table, add the following project issue types and save the changes:

Project Issue Type	Description
Accident	Accidents and emergencies
Safety Violation	Violation of safety regulations
Design Issue	Design issues
Resource	Problems with equipment, materials, or people

Project Management Preferences ☆

Project Issue Type	Description
Accident	Accidents and emergencies
Safety Violation	Violation of safety regulations
Design Issue	Design issues
Resource	Problems with equipment, materials, or people

Creating Project Issues

1. On the Project Issues (PJ302000) form, create a project Issue with the following settings:
- Summary:** Hole in wall needs patching
 - Project:** HOTEL
 - Class ID:** FIELD
 - Due Date:** <7 days from today>
 - Project Issue Type:** Accident
 - Schedule Impact:** Selected
 - Schedule Impact (days):** 1

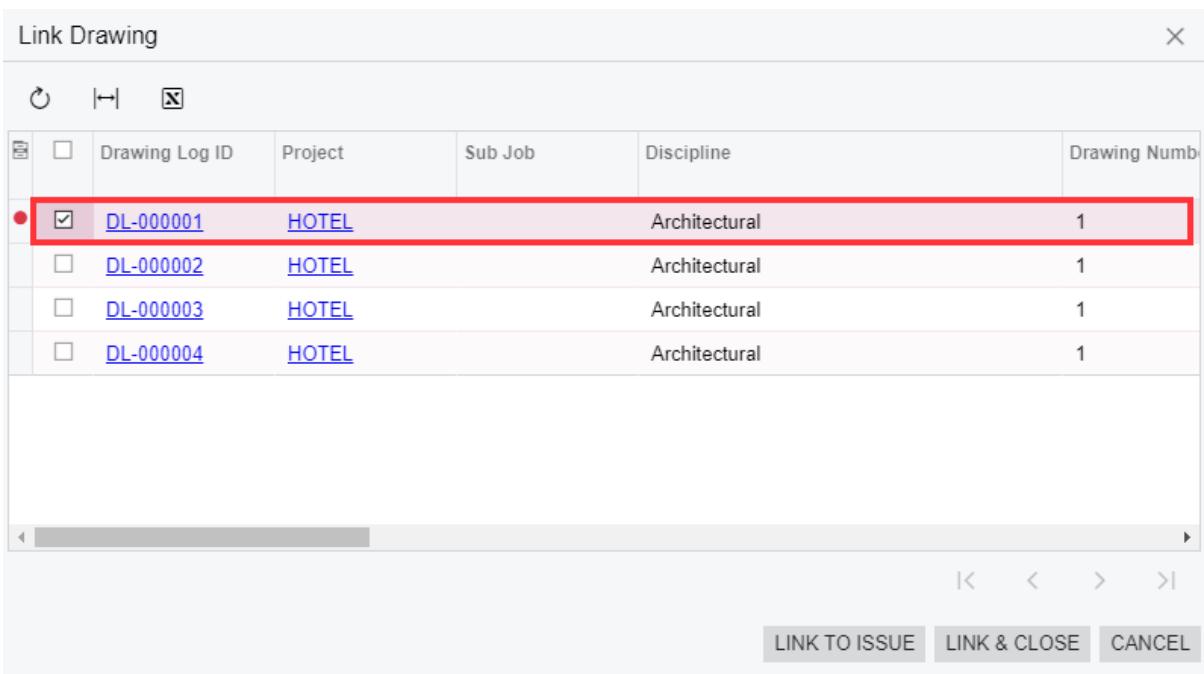
- **Cost Impact:** Selected
 - **Cost Impact:** 2000
 - **Owner:** *Todd Bloom* (project manager)

2. On the **Details** tab, type the following information: Subcontractor put a hole in the wall when stacking materials, needs to be patched and finished ASAP.

3. Review other settings that have been prefilled with default values and save the record.

4. Create another project issue, with the following settings specified:
 - **Summary:** Paving should be replaced
 - **Project:** HOTEL
 - **Class ID:** FIELD
 - **Due Date:** <7 days from today>
 - **Project Issue Type:** Design Issue
 - **Schedule Impact:** Selected
 - **Schedule Impact (days):** 3
 - **Cost Impact:** Selected
 - **Cost Impact:** 60000
 - **Owner:** Todd Bloom
 5. On the **Details** tab, type the following information: Due to unstable terrain, need to lay the paving differently. Refer to the updated site plan.

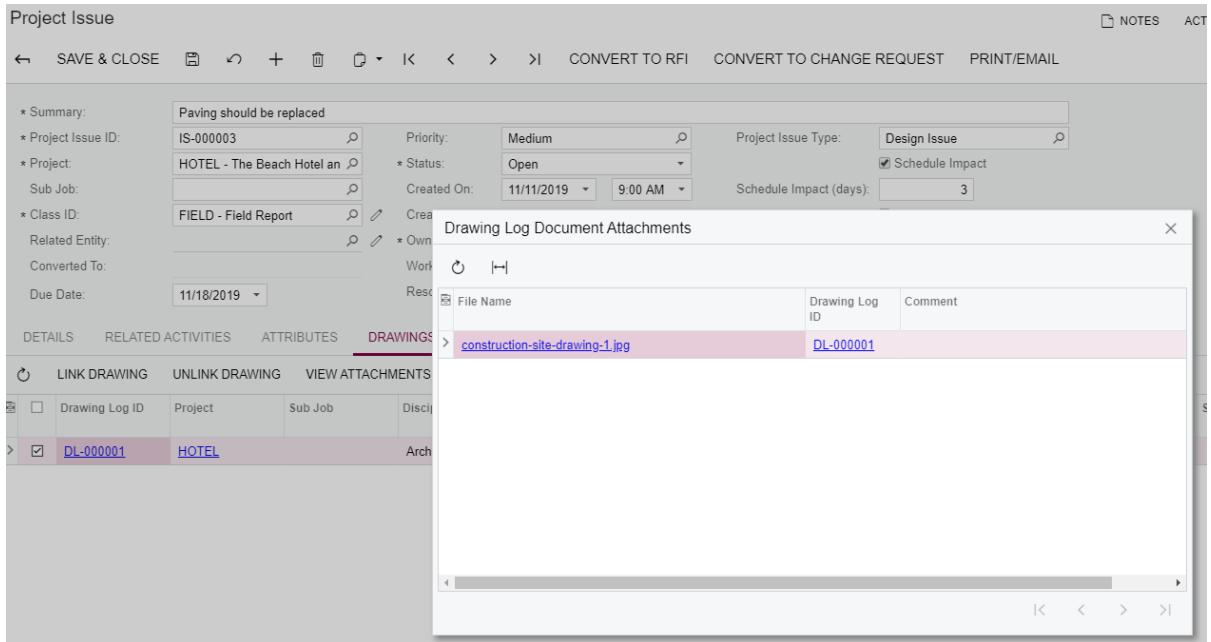
6. Save the changes.
 7. On the **Drawings** tab, click **Link Drawing** on the table toolbar.
 8. In the **Link Drawing** dialog box that opens, select the check box in the unlabeled column for the DL-000001 drawing log, which includes the site plan, and click **Link & Close**.



The linked drawing log is now listed in the table on the **Drawings** tab.

- ### **9. Save the record.**

- 10.** Select the unlabeled check box for the linked drawing log and click **View Attachments** on the table toolbar. Then, in the **Drawing Log Document Attachments** dialog box, download the file with the site plan by clicking its name in the table.



Alternatively, you can click the link in the **Drawing Log ID** column which will open the linked drawing log on the Drawing Log (PJ303000) form in a pop-up window; you can review the site plan from there.

- 11.** On the form toolbar of the Project Issue form, click **Print/Email** to open the printed form with the project issue details.

PROJECT ISSUE #IS-000003

Project: HOTEL-The Beach Hotel and Condominiums, New York	Date: 11/11/2019
Sub Job:	Created By: Pam Brawner
Priority: Medium	Owner: Regina Wiley
Project Issue Type: Design Issue	
Status: Open	Converted To:

Summary:
Paving should be replaced

Due Date: 11/18/2019

Details:
Due to unstable terrain, need to lay the paving differently. Refer to the updated site plan.

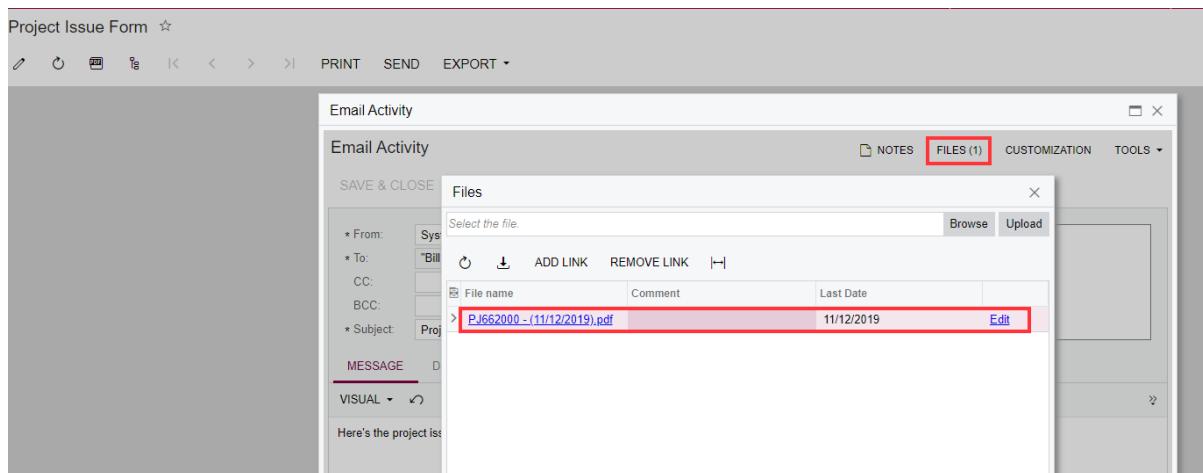
Schedule Impact, Days: Yes - 3	Cost Impact (USD): Yes - 60000
-----------------------------------	-----------------------------------

Drawings:

Drawing Log	Revision	Sketch	Title
DL-000001			Floor plan

Alternatively, you can open the Project Issue Form (PJ662000) form, select the project issue in the **Project Issue ID** box on the **Report Parameters** tab, and click **Run Report** on the form toolbar.

- 12.** Click **Print** to print the project issue details or click **Send** to create an email with the project issue details attached as a PDF file.



Converting a Project Issue to an RFI

A project issue can be converted to a request for information as follows.

1. On the Project Issues (PJ302000) form, open the *Paving should be replaced* project issue.
2. Click **Convert to RFI** on the form toolbar.

The Request for Information (PJ301000) form opens with some data prefilled. Review the settings copied from the project issue:

- **Project**
- **Summary**
- Impact-related elements
- **Question** on the **Details** tab

Request for Information

* Project: HOTEL - The Beach Hotel an

* Summary: Paving should be replaced

* Status: New

* Reason: N/A

* Priority:

Documentation Link:

Spec. section:

Converted From: IS-000003

Converted To:

DETAILS ATTRIBUTES ACTIVITIES RELATIONS DRAWINGS

Question

Answer

Due to unstable terrain, need to lay the paving differently. Refer to the updated site plan.

Note that in the **Converted From** box, the link to the original project issue is displayed.

3. Specify the following settings and save the changes:
 - **Business Account:** CONCCO (subcontractor to perform the work)
 - **Contact:** Alphonse White

- **Class ID:** CNSTDOCDEF
 - **Owner:** Todd Bloom (project manager)
 - In the **Question** pane on the **Details** tab, type: What paving material should be used?
4. Click the link in the **Converted From** box.

On the Project Issue form that opens in a pop-up window, see that the link to the related RFI is displayed in the **Converted From** box and the project issue has been closed with the status changed to *Converted to RFI*.

Project Issue

The screenshot shows the Project Issue form with the following details:

Summary:	Paving should be replaced
Project Issue ID:	IS-000003
Project:	HOTEL - The Beach Hotel and C
Sub Job:	
Class ID:	FIELD - Field Report
Related Entity:	
Converted To:	RF-000010
Due Date:	11/18/2019
Priority:	Medium
* Status:	Converted to RFI
Created On:	11/11/2019 9:00 AM
Created By:	Pam Brawner
Owner:	Regina Wiley
Workgroup:	
Resolved On:	

Buttons at the top: SAVE & CLOSE, CONVERT TO RFI, CONVERT TO CHANGE REQUEST, PRINT/EMAIL. Buttons at the bottom: DETAILS, RELATED ACTIVITIES, ATTRIBUTES, DRAWINGS.

Message pane: Due to unstable terrain, need to lay the paving differently. Refer to the updated site plan.

5. On the form toolbar of the Request for Information (PJ301000) form, click **Email RFI**.

The Email Activity form opens in a pop-up window. The contact specified for the RFI is the default recipient of the email. On the **Message** tab, you need to type your question and then click **Send** on the form toolbar.

Email Activity

The screenshot shows the Email Activity form with the following details:

* From:	System
* To:	"Alphonse White" X
CC:	
BCC:	
* Subject:	RFI #[RF-000010 HOTEL] Paving should be replaced

Right panel: Request For Information
RFI ID: RF-000010
Summary: Paving should be replaced

Buttons at the top: SAVE & CLOSE, SEND, REPLY, ACTIONS, ATTACH. Buttons at the bottom: NOTES, FILES, CUSTOMIZATION, TOOLS.

Message tab: MESSAGE, DETAILS. Rich text editor toolbar: VISUAL, Paragraph, B, I, U, A, etc. Message body: What paving material should be used?

The status of the RFI changes to *Open* and the **Convert to Change Request** button becomes available on the form toolbar.

6. Click Convert to Change Request on the form toolbar.

Note that on the Change Requests (PM308500) form that opens, some settings are prefilled with values from the RFI, such as **Project**, **Description**, and **Detailed Description**.

In the **Project Issue** box, the original project issue is specified. In the **RFI** box, the RFI is specified, from which the change request has been created.

Change Requests

The screenshot shows the 'Change Requests' form (PM308500). The 'Project Issue' field contains 'IS-000003' and the 'RFI' field contains 'RF-000010'. Both fields are highlighted with a red rectangle. The form includes sections for ESTIMATION, DETAILED DESCRIPTION, MARKUPS, and APPROVAL DETAILS. The DETAILED DESCRIPTION tab is selected. A rich text editor toolbar is visible at the bottom, and a status bar at the bottom indicates 'What paving material should be used?'

- 7. Save the record. It has the *On Hold* status as a newly created change request, and it can be further processed as a regular change request. For details, see Lesson 10: Change Management in this training course guide.**
- 8. Open the original RFI again.**

Note that its status has changed to *Closed* with the *Converted to Change Request* reason. In the **Converted To** box, the link to the resulting change request is displayed.

Request for Information

Project: HOTEL - The Beach Hotel and C ***RFI ID:** RF-000010

Sub Job: **Creation Date:** 11/12/2019

Business Account: CONCCO - Suntech Concrete **Created By:** Pam Brawner

Contact: Alphonse White **Owner:** Todd Bloom

Class ID: CNSTDOCDEF - Construction D **Answer Due Date:** 11/14/2019

Summary: Paving should be replaced

Incoming

Status:	Closed	Workgroup:	<input checked="" type="checkbox"/> Schedule Impact
Reason:	Converted To Change Request	Schedule Impact (days):	3
Priority:	Medium	<input checked="" type="checkbox"/> Cost Impact	
Documentation Link:	<input type="text"/>	Cost Impact:	60,000.00
Spec. section:	<input type="text"/>	<input type="checkbox"/> Design Change	
Converted From:	IS-000003	Converted To:	000004

DETAILS **ATTRIBUTES** **ACTIVITIES** **RELATIONS** **DRAWINGS**

Question

What paving material should be used?

Answer

Converting a Project Issue to a Change Request

1. On the Project Issues (PJ302000) form, open the *Hole in wall needs patching* project issue.
 2. Click **Convert to Change Request** on the form toolbar.

On the Change Requests (PM308500) form that opens, review the prefilled settings.

Note that in the **Project Issue** box, the ID of the original project issue is specified.

3. Take the change request off hold and save the record.

The change request can be further processed as a regular change request. For details, see Lesson 10: Change Management in this training course guide.

4. Open the original project issue again.

Note that the project issue has been closed with the status changed to *Converted to CR* and the link to the related change request is displayed in the **Converted To** box.

Project Issue

The screenshot shows a software interface for managing project issues. At the top, there are standard navigation icons: back, forward, search, and a toolbar with 'SAVE & CLOSE', 'CONVERT TO RFI', 'CONVERT TO CHANGE REQUEST', and 'PRINT/EMAIL'. Below the toolbar, the main form area displays various fields:

Summary:	Hole in wall needs patching		
Project Issue ID:	IS-000002	Priority:	Medium
Project:	HOTEL - The Beach Hotel and C	* Status:	Converted to CR
Sub Job:		Created On:	11/11/2019 9:00 AM
Class ID:	FIELD - Field Report	Created By:	Pam Brawner
Related Entity:		Owner:	Todd Bloom
Converted To:	000005	Workgroup:	
Due Date:	11/18/2019	Resolved On:	

On the right side of the form, there are additional settings:

- Project Issue Type: Accident
- Schedule Impact: Schedule Impact
- Schedule Impact (days): 1
- Cost Impact: Cost Impact
- Cost Impact: 2,000.00

Below the main form, there are tabs for 'DETAILS' (which is selected), 'RELATED ACTIVITIES', 'ATTRIBUTES', and 'DRAWINGS'. A note at the bottom states: 'Subcontractor put a hole in the wall when stacking materials, needs to be patched and finished ASAP.'

Lesson 13: Requests for Information

Requests for information (RFIs) are used for obtaining information that is not present in (or cannot be inferred from) the contract documents. An RFI is usually submitted by a general contractor or subcontractor and a design or engineering professional is usually specified as a contact person who is expected to provide the needed information.

Learning Objectives

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

- Configure project management classes that may be used for requests for information
- Enter an RFI
- Convert an incoming RFI to an outgoing RFI
- Link drawings to an RFI
- Email RFIs
- Convert an RFI to a change request

Story

Our subcontractor requested a specification for the hotel roofing. One of your employees, an engineer, provides the specification, which should be linked to the initial request for information and sent to the subcontractor. Also, a change request should be created based on that RFI.

System Preparation

Sign in to the system by using the *owen* login and *123* password.

Configuring Requests for Information

On the Project Management Classes (PJ201000) form, make sure that the *CNSTDOCDEF* class exists and the **Requests for Information** check box is selected for it so that this class can be used for requests for information.

Project Management Classes

The screenshot shows a software interface for managing project management classes. At the top, there are standard toolbar icons for Save & Close, Undo, Redo, New, Delete, and Navigation. Below the toolbar, a header row contains fields for 'Project Management Class ID' (set to 'CNSTDOCDEF - Co') and 'Description' (set to 'Construction Document Deficiency'). To the right of these fields is a 'USE FOR' section with checkboxes for 'Project Issues' (unchecked) and 'Requests For Information' (checked). Below the header is a navigation bar with tabs: 'DETAILS' (which is selected), 'ATTRIBUTES', and 'PRIORITIES'. Under the 'DETAILS' tab, there are two main sections: 'REQUEST FOR INFORMATION SETTINGS' and 'PROJECT ISSUE SETTINGS'. In the 'REQUEST FOR INFORMATION SETTINGS' section, 'Answer Days Default' is set to 2. In the 'PROJECT ISSUE SETTINGS' section, 'Answer Days Default' is set to 0.

Working with Requests for Information

1. On the Request for Information (PJ301000) form, create a new RFI with the following settings and save the record:
 - a. **Project:** HOTEL
 - b. **Business Account:** EQUGRP
 - c. **Contact:** Gayle Goh
 - d. **Class ID:** CNSTDOCDEF
 - e. **Summary:** Need specs on hotel roofing
 - f. **Incoming:** Selected (the request has been received from outside the company)
 - g. **Priority:** High
 - h. **Owner:** Regina Wiley (the employee who will provide an answer)
 - j. **Design Change:** Selected
2. On the **Details** tab, type the following information: Please provide these specifications.

Request for Information

☆

[←](#)
[SAVE & CLOSE](#)

[EMAIL RFI](#)
[PRINT RFI](#)

<p>* Project: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="HOTEL - The Beach Hotel and Residences"/></p> <p>Sub Job: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p> <p>Business Account: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="EQUGRP - The Equity Group"/></p> <p>* Contact: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="Gayle Goh"/></p> <p>* Class ID: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="CNSTDOCDEF - Construction"/></p> <p>* Summary: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="Need specs on hotel roofing"/></p> <p><input checked="" type="checkbox"/> Incoming</p>	<p>* RFI ID: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="<NEW>"/></p> <p>* Creation Date: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="11/12/2019"/></p> <p>Created By: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="Pam Brawner"/></p> <p>* Owner: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="Regina Wiley"/></p> <p>Answer Due Date: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="11/14/2019"/></p>	<p>Workgroup: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p> <p><input type="checkbox"/> Schedule Impact</p> <p><input type="checkbox"/> Cost Impact</p> <p><input checked="" type="checkbox"/> Design Change</p>
<p>* Status: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="New"/></p> <p>Reason: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="N/A"/></p> <p>Priority: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text" value="High"/></p> <p>Documentation Link: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p> <p>Spec. section: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p> <p>Converted From: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p> <p>Converted To: <input style="width: 100%; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;" type="text"/></p>		

DETAILS
ATTRIBUTES
ACTIVITIES
RELATIONS
DRAWINGS

Question

VISUAL

Paragraph

Please provide these specifications.

- 3.** Change the status of the RFI to *Open* and save the changes.
 - 4.** Click **Convert to Outgoing RFI** on the form toolbar to create a new outgoing RFI that will be linked to the original incoming RFI.

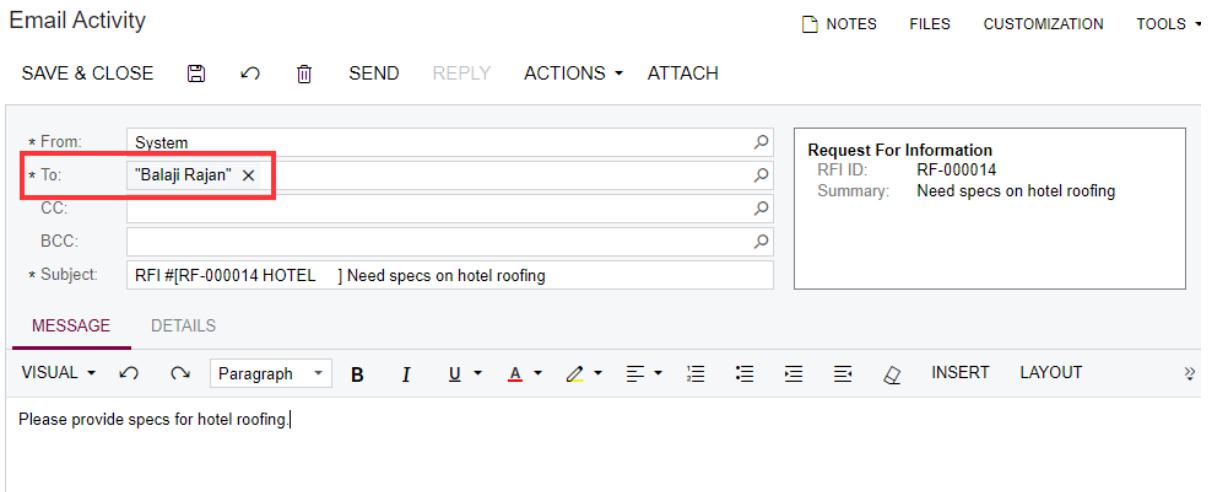
Outgoing RFIs originate from inside the company and are addressed to external experts.

Note that the link to the original incoming RFI is displayed in the **Link to Incoming RFI** box.

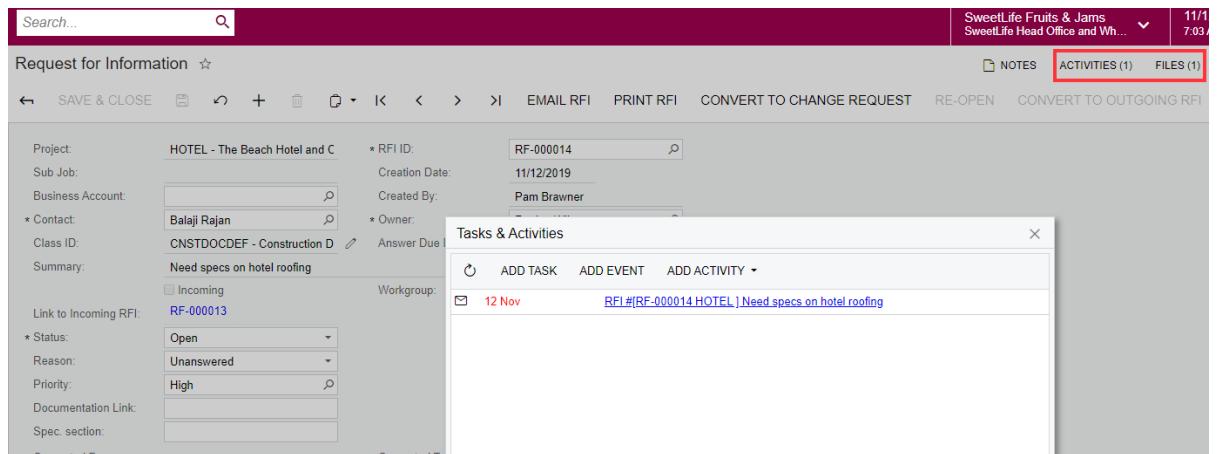
- 5.** In the **Contact** box, specify *Balaji Rajan*—an engineer who can provide specs.
 - 6.** Save the changes.
 - 7.** Click **Email RFI** on the form toolbar.
 - 8.** On the Email Activity form that opens, note that the contact specified for the RFI is the recipient of the email.

Specify the following message on the **Message** tab, and then click **Send** on the form toolbar:

Please provide specs for hotel roofing.

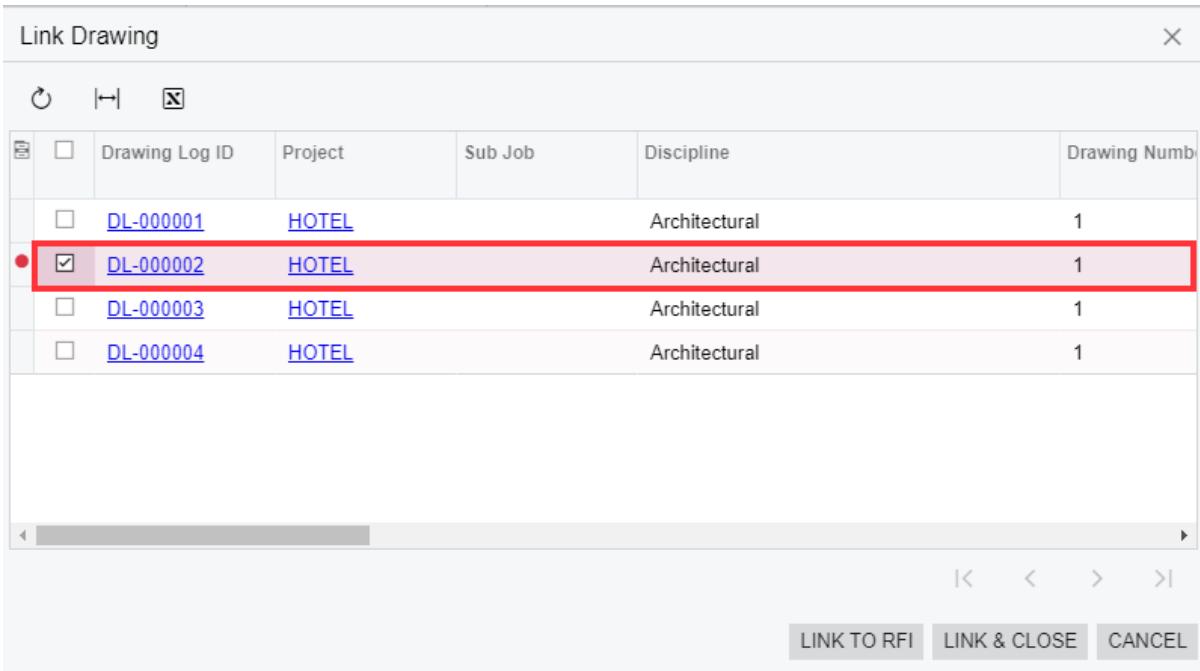


As a result, the **Activities** counter on the title bar indicates that a related email activity has been created. The **Files** counter indicates that a PDF file with details of the RFI has been attached to the email. Review the email and the attached PDF file.



9. Suppose that Balaji Rajan replied with a new drawing for the hotel roofing. A corresponding drawing log has been created (DL-000002) with the drawing of the roofing attached to it.

On the **Drawings** tab, click **Link Drawing** on the table toolbar.



10. In the **Link Drawing** dialog box that opens, select the unlabeled check box for the *DL-000002* drawing log and then click **Link & Close**.

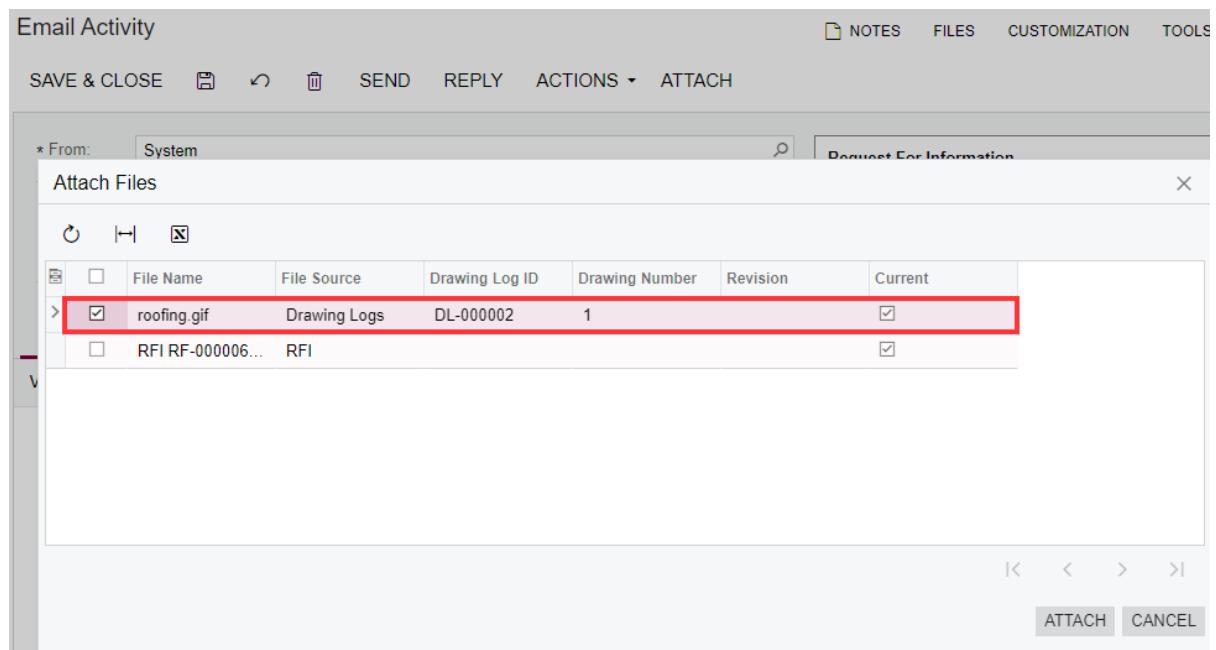
11. On the **Details** tab, in the **Answer** pane, type: See the linked drawing.

12. Save the changes.

13. Click **Email RFI** on the form toolbar.

14. On the Email Activity form that opens, do the following:

- a. in the **To** box, select *Todd Bloom*, who is the project manager and needs to review the spec.
- b. Click **Attach** on the form toolbar.
- c. In the **Attach Files** dialog box, select the unlabeled check box for the roofing drawing and click **Attach**.



d. Click **Send** on the form toolbar.

15. Click Convert to Change Request on the form toolbar.

Note that on the Change Requests (PM308500) form that opens, some settings are prefilled with values from the RFI, such as **Project**, **Description**, and **Detailed Description**.

In the **RFI** box, the original RFI is specified, from which the change request has been created.

Reference Nbr.:	<NEW>	Project:	HOTEL - The Beach Hotel and Condomir	Cost Total:	0.00
Status:	On Hold	Customer:		Line Total:	0.00
* Change Date:	11/12/2019	Project Issue:		Markup Total:	0.00
Contract Time ...	0	RFI:	RF-000014	Gross Margin %:	0.00
Ext. Ref. Nbr.:		Change Order Nbr.:		Price Total:	0.00
* Description:	Need specs on hotel roofing				

Below the table, tabs for ESTIMATION, DETAILED DESCRIPTION, MARKUPS, and APPROVAL DETAILS are visible. At the bottom, there is a grid for Project Task, Account Group, Cost Code, Inventory ID, Description, Quantity, UOM, and Unit Cost.

16. Save the record.

It has the *On Hold* status as a newly created change request, and it can be further processed as a regular change request.

17. Open the original RFI again.

Note that its status has changed to *Closed* with the *Converted to Change Request* reason. In the **Converted To** box, the link to the resulting change request is displayed.

Request for Information ☆

[SAVE & CLOSE](#) [PRINT RFI](#) [CONVERT TO CHANGE REQUEST](#) [RE-OPEN](#) [CONVERT TO OUTGOING RFI](#)

Project:	HOTEL - The Beach Hotel and C	* RFI ID:	RF-000014	<input type="button" value=""/>
Sub Job:		Creation Date:	11/12/2019	
Business Account:		Created By:	Pam Brawner	
Contact:	Balaji Rajan	Owner:	Regina Wiley	
Class ID:	CNSTDOCDEF - Construction D	Answer Due Date:	11/14/2019	
Summary:	Need specs on hotel roofing			
<input type="checkbox"/> Incoming		Workgroup:		
Link to Incoming RFI:		RF-000013		
Status:	Closed	<input type="checkbox"/> Schedule Impact		
Reason:	Converted To Change Request	<input type="checkbox"/> Cost Impact		
Priority:	High	<input checked="" type="checkbox"/> Design Change		
Documentation Link:				
Spec. section:				
Converted From:		Converted To: 000006		

[DETAILS](#) [ATTRIBUTES](#) [ACTIVITIES](#) [RELATIONS](#) [DRAWINGS](#)

Question

Please provide these specifications.

Answer

See the linked drawing.

Lesson 14: Photo Logs

In the construction industry, field superintendents and other employees may use mobile devices to take progress photos, and then they may need to store and share those photos by using a secure online service. In Acumatica ERP Construction Edition, users can create photo logs that may be associated with particular projects and project tasks.

Learning Objectives

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

- Set up photo logs in the system
- Create photo logs and upload photos
- Download all photos from a photo log in a single .zip archive
- Email photo logs
- Use search to find particular photos

Story

The field superintendent inspects the project site, takes progress photos, uploads them to the system, and associates them with the particular project and project task.

System Preparation

Sign in to the system by using the *owen* login and *123* password.

Setting Up Photo Logs

To set up the ability of maintaining photo logs in the system, do the following on the Photo Log Preferences (PJ103000) form:

1. On the **General Settings** tab, make sure that numbering sequences for photo logs and photos are specified.

GENERAL SETTINGS		STATUS	ATTRIBUTES
* Photo Log Numbering Sequence:	PHOTOLOG - Photo Logs	<input type="button" value="P"/>	<input type="button" value="O"/>
* Photo Numbering Sequence:	PHOTO - Photo	<input type="button" value="P"/>	<input type="button" value="O"/>

2. On the **Status** tab, define custom statuses for photo logs by doing the following:

- a.** Change the name of the *N/A* status to *In Progress* and update its description for *Work in progress*.

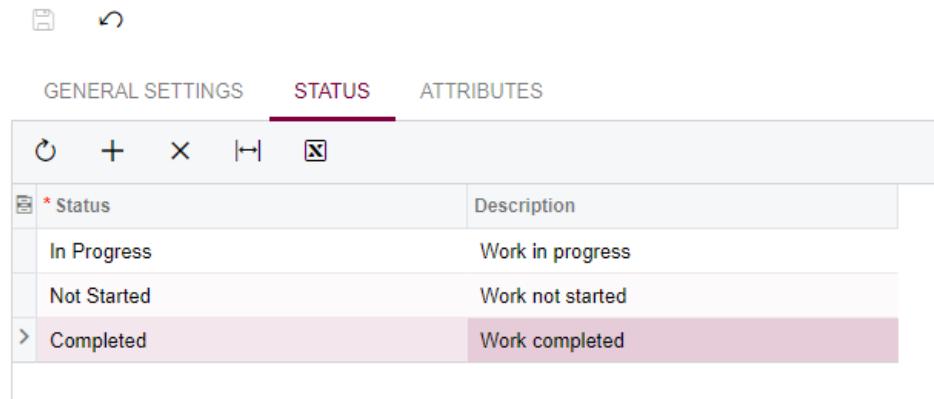
The *N/A* status is a predefined status specified by default for a new photo log. This status cannot be deleted, but you always can change its name and description.

- b.** Add the following statuses:

Status	Description
Not Started	Work not started
Completed	Work completed

These statuses will be used for photo logs that indicate the state and progress of particular project tasks.

Photo Log Preferences



* Status	Description
In Progress	Work in progress
Not Started	Work not started
Completed	Work completed

- 3.** Save the changes.

Note that on the **Attributes** tab, you can specify a list of attributes that will be available for individual photos in a photo log. We will not use attributes in this lesson.

Working with Photo Logs

- On the Photo Logs (PJ405000) form, click Add New Record on the form toolbar.
- On the Photo Log (PJ305000) form that opens, specify the following settings:
 - Date:** Current date
 - Project:** HOTEL
 - Project Task:** 02 - SITEWORK
 - Description:** Problem with the drainage system

3. Save the changes.

Note that an identifier has been automatically generated for the photo log in accordance with the numbering sequence specified on the Photo Log Preferences (PJ103000) form.

- 4.** You need to upload three photos provided with the training materials. For each photo, do the following:

 - a.** On the **Photos** tab, click Add Row on the table toolbar.
 - b.** On the Photo (PJ305010) form that opens, make sure that the correct photo log is selected in the **Photo Log ID** box.
 - c.** Click **Upload Photo**.

Photo

SAVE & CLOSE

* Photo Log ID:

* Photo ID:

Name:

Description:

Uploaded On:

Uploaded By:

Main Photo

ATTRIBUTES

	Attribute	Required	Value

- d. By using the **Upload New Photo** dialog box that opens, upload a photo.

Upload New Photo

Upload file Link to existing file

Choose File:

Comment:

max 25000KB

UPLOAD **CANCEL**

- e. Click **Save and Close** on the form toolbar.

As a result, the uploaded photos are listed in the table on the **Photos** tab of the Photo Log (PJ305000) form. In the preview area to the right of the table, a preview of the highlighted photo is displayed.

Photo Log

Photo Log ID:	PL-000001	* Status:	In Progress	Created By:	admin - Pam Brawner
* Date:	12/16/2019				
* Project:	HOTEL - The Beach Hotel an				
Project Task:	02 - SITEWORK				
Description:	Problem with the drainage system				

PHOTOS

Photo ID	Name	Description	Uploaded On	Uploaded By	Main Photo
PH-000001	creek-crossing-concrete-headwall.jpg		12/16/2019	admin	<input type="checkbox"/>
PH-000002	culvert.jpg		12/16/2019	admin	<input type="checkbox"/>
PH-000003	EROSION.jpg		12/16/2019	admin	<input type="checkbox"/>



5. On the **Photos** tab, select the check box in the **Main Photo** column for the second uploaded photo (culvert.jpg) and save the changes.

Photo Log

← SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ ⌊ ⌋ ACTIONS ▾

Photo Log ID:	PL-000001	* Status:	In Progress	Created By:	admin - Pam Brawner
* Date:	12/16/2019				
* Project:	HOTEL - The Beach Hotel an				
Project Task:	02 - SITEWORK				
Description:	Problem with the drainage system				

PHOTOS

○ + × ⌄ ⌋

Photo ID	Name	Description	Uploaded On	Uploaded By	Main Photo
PH-000001	creek-crossing-concrete-headwall.jpg		12/16/2019	admin	<input type="checkbox"/>
PH-000002	culvert.jpg		12/16/2019	admin	<input checked="" type="checkbox"/>
PH-000003	EROSION.jpg		12/16/2019	admin	<input type="checkbox"/>



As a result, this photo will be displayed in the preview area on the Photo Logs (PJ405000) form as the main photo of the entire photo log. Note that only one photo can be marked as the main photo for a photo log. If no photo is marked as the main photo, the preview area will be empty.

Photo Logs ☆

+ ⌄ ACTIONS ▾

Project:	HOTEL - The Beach Hotel an	Date From:	
Project Task:	02 - SITEWORK	Date To:	12/16/2019

○ ⌄ ⌋

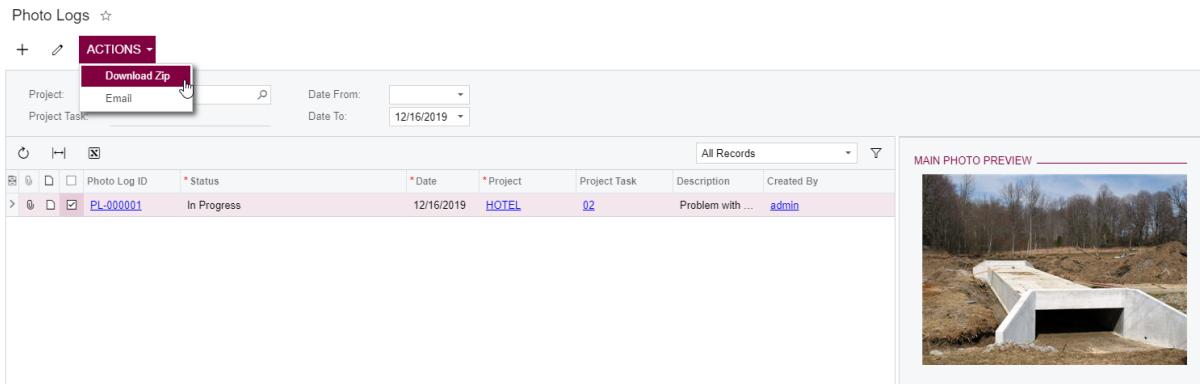
Photo Log ID	* Status	* Date	* Project	Project Task	Description	Created By
PL-000001	In Progress	12/16/2019	HOTEL	02	Problem with ...	admin

MAIN PHOTO PREVIEW



Note that on the Photo Logs (PJ405000) form, you can use the **Project** and **Project Task** boxes to filter photo logs associated with particular projects and project tasks. By using the **Date From** and **Date To** boxes, you can specify an interval for which you want to see a list of available photo logs.

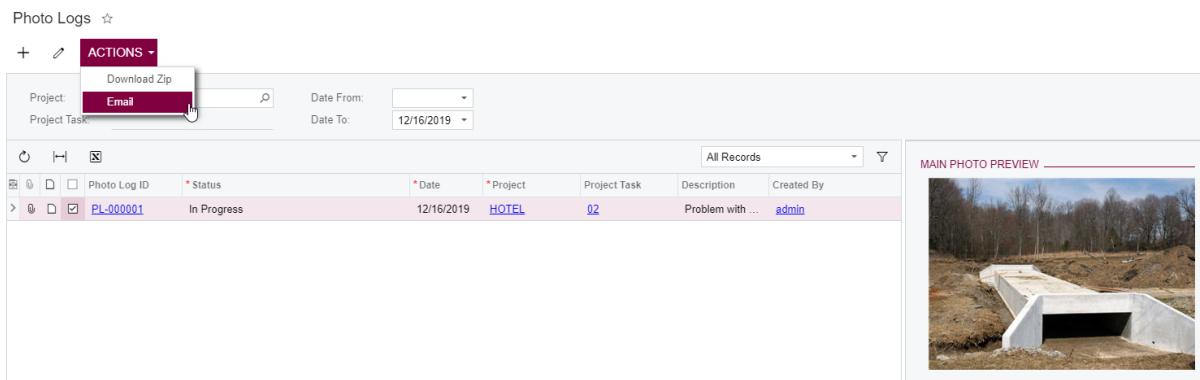
6. On the Photo Logs (PJ405000) form, select the unlabeled check box for the previously created photo log and then click **Actions > Download Zip** on the form toolbar.



The screenshot shows the 'Photo Logs' form interface. At the top, there's a toolbar with buttons for '+', a magnifying glass, 'ACTIONS', 'Download Zip', and 'Email'. Below the toolbar, there are search fields for 'Project' and 'Project Task', and dropdowns for 'Date From' (set to 12/16/2019) and 'Date To' (set to 12/16/2019). A table below lists one record: PL-000001, In Progress, dated 12/16/2019, under project HOTEL, task 02, with a note about a problem and created by admin. On the right, a preview image shows a concrete structure in a wooded area.

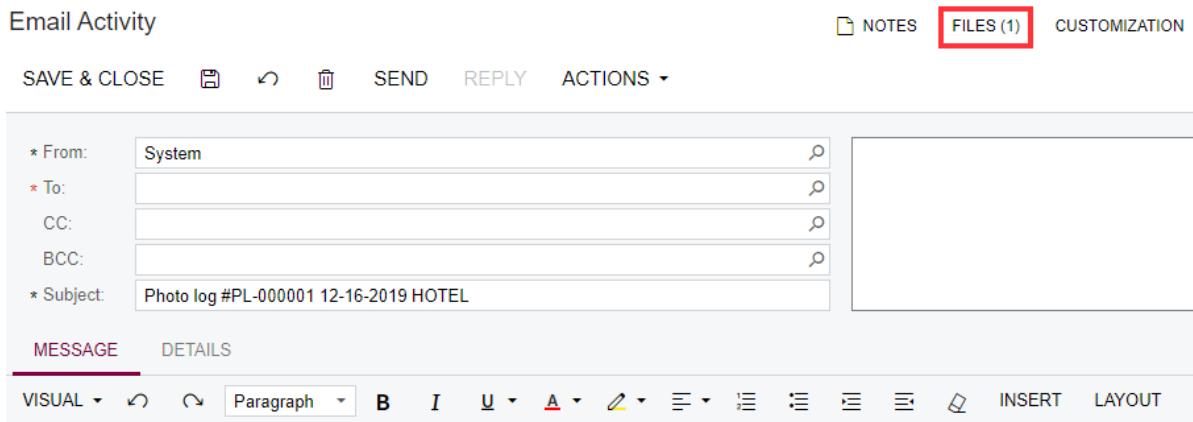
As a result, a .zip file with all photos included in the selected photo log (and with all files attached to the photo log, if any) is created and downloaded. If you select multiple photo logs, all included photos and attachments will be included in a single .zip file.

- On the Photo Logs (PJ405000) form, select the unlabeled check box for the photo log and then click **Actions > Email** on the form toolbar.



This screenshot is identical to the one above, but it includes a small checkmark in the empty checkbox next to the 'PL-000001' entry in the list, indicating that the photo log has been selected for emailing.

As a result, all the photos and files associated with the selected photo log(s) are included in a single .zip file and attached to the email on the Email Activity form that opens, which is indicated by the **Files** counter on the form title bar. The automatically generated subject of the email includes information about the photo log and the related project.



Note that you can move a photo from one photo log to another by simply selecting the destination photo log in the **Photo Log ID** box for the photo on the Photo (PJ305010) form and saving the changes. If you delete a photo log, all photos included in the photo log will be also deleted.

8. In the Search box, start typing the ID of the photo log.

On the **Transactions and Profiles** tab of the search results, the found photo log will be listed.

Photo Log: PL-000001	
Status:	In Progress - Date: 12/16/2019 - Description: Problem with the drainage system - Created By: admin
Project:	HOTEL - Project Task: 02

The system searches photo logs by photo log ID, description, and attribute.

Also, you can find a photo in a photo log by typing the name of the image file in the Search box; found files will be listed on the **Files** tab of the search results.

culvert	
culvert.jpg	Created: 12/16/2019 6:12:05 AM - Size: 19.03 KB
e8207dc2-4f1f-ea11-9fcf-7c5cf8918e20culvert.jpg	Created: 12/16/2019 6:12:05 AM - Size: 19.03 KB

Lesson 15: Daily Field Reports

A daily field report (DFR), or a daily log, is used by project managers and site supervisors in construction to record observations, activities, and conditions that occur on a project site every day. This data can be valuable in analyzing why a project might have a problem, be delayed, or be unprofitable. They can also be used as records in litigation if there is a dispute with the owner, a staff member, insurance or bond issuer, or a subcontractor. DFRs help to make sure everyone is looking at the same data both in the field and in the office.

A DFR is often entered and submitted by one person (usually a supervisor, site leader, foreman, or project manager), but sometimes the responsibility can be shared amongst more than one of these personas. A new DFR is typically entered every day, for each construction project. The exact frequency may vary by company. A project may have one DFR submitted each day for each project, or possibly multiple DFR's submitted daily for larger or complex projects. Owners are often interested in reviewing daily logs.

Learning Objectives

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

- Create and assign an approval map for daily field reports
- Create a daily field report
- Add to the daily field report the following:
 - labor time and activities
 - change requests
 - change orders
 - subcontractor activities
 - project issues
 - weather conditions
 - site visitors
- Email the daily field report

Story

Suppose that Bill Owens, a project manager in the SweetLife company, spent a day on the construction site of the Italian restaurant. During the day he made notes about employee and subcontractor activities, weather conditions, project issues, visitors, and the like. Also, Bill took a couple of photos to support his report about weather conditions. At the end of the day, Bill creates a daily field report in Acumatica ERP Construction Edition, adds all his notes, and sends it for review to the customer.

System Preparation

Sign in as a project manager by using the *owen* login and the *123* password.

Configuring an Approval Map for DRFs

Do the following to configure an approval map:

1. Open the Project Management Preferences (PJ101000) form and review the **Daily Field Report Settings** section (shown in the screenshot below).

By using settings in this section, you can specify a numbering sequence to be used by the system to assign a unique identifier to each created report. Also, you can configure how the daily field reports should go through an approval process. That is, you specify an approval map and a notification template for reports that are pending approval.

The screenshot shows the Project Management Preferences (PJ101000) form with the General Settings tab selected. The Daily Field Report Settings section is highlighted with a red box. It contains the following fields:

- * DFR Numbering Sequence: DFREPORT - Daily Field Report
- DFR Approval Map: (empty)
- Pending Approval Notification: Daily Field Report

On the right side of the form, there is a sidebar titled "PROJECT ISSUE SETTINGS" which displays a table with columns for "Project Issue Type" and "Description". A message at the top of the sidebar says "No records found. Try to modify parameters above to see records here." There are also "New" and "Edit" buttons for the sidebar.

2. Open the Assignment and Approval Maps (EP205500) form.
3. On the form toolbar, click **Add Approval Map**. The system opens the Approval Maps (EP205015) form.
4. In the Selection area of the form, do the following:
 - In the **Name** box, type *DFR Approval*.
 - In the **Entity Type** box, select *Daily Field Report*.
5. In the **Steps** pane, click **Add Step**. The system adds a step with a rule.
6. Click the rule and then, in the right pane on the **Conditions** tab, do the following:
 - In the **Description** box, type *PMAprv1*.
 - In the table, add a row with the following settings:
 - Entity:** *Daily Field Report*

2. Field Name: Project Manager

3. Condition: Is Not Empty

Approval Maps

The screenshot shows the 'Approval Maps' configuration screen. At the top, there are buttons for 'SAVE & CLOSE', 'RELOAD', 'ADD', 'UP', 'DOWN', and 'DELETE'. The 'Map' field is set to 'DFR Approval' and the 'Entity Type' is 'Daily Field Report'. The 'Steps' section shows a single step named 'PMApprvl'. The 'CONDITIONS' tab is selected, displaying a condition row for 'PMApprvl' with the description 'PMApprvl' and the value 'Active'. Below this is a table for rule actions:

Active	Bracket	Entity	Field Name	Condit	Value
<input checked="" type="checkbox"/>	-	Daily Field Report	Project Manager	Is Not Empt	

7. In the right pane on the **Rule Actions** tab, specify settings as follows:

- a. **Approver:** Employee from Document
- b. **Employee:** ((DailyFieldReport.ProjectManagerId))
- c. **On Approval:** Approve Document

Approval Maps

The screenshot shows the 'Approval Maps' configuration screen. The 'Map' field is set to 'DFR Approval' and the 'Entity Type' is 'Daily Field Report'. The 'Steps' section shows a single step named 'PMApprvl'. The 'RULE ACTIONS' tab is selected, displaying approval settings:

Approver:	Employee from Document
Employee:	((DailyFieldReport.ProjectManagerId))
Workgroup:	
* Decision Wait Time:	000 d 00 h 00 m
On Approval:	Approve Document

8. Click **Save** on the form toolbar.

9. On the Project Management Preferences (PJ101000) form, in the **Daily Field Report Settings** section, in the **DFR Approval Map** box, select the approval map that you have just created (*DFR Approval*).

10. Save the changes.

Creating a Daily Field Report

Create a daily field report as follows:

1. Open the Projects (PM301000) form.
 2. In the **Project ID** box, select *ITALIAN3*.
- Review the list of related documents: change requests, change orders, commitments.
3. Open the Daily Field Reports (PJ304000) form.
 4. In the **Project** box, select *ITALIAN3*.
 5. On the form toolbar, click **Save**.

Adding Labor Time and Activities

Record labor time and activities as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, on the **Labor Time and Activities** tab of the form, add records with the following settings:

Employee	Em- ployee Name	Earn- ing Type	Sub Job	Cost Code	Time	Time Spent	Bill- able	Bill- able Time	De- scrip- tion
EP00000017	Archibald Knorr	RG	01	01-300	9:00 AM	08:00	True	08:00	GENERAL REQUIREMENTS
EP00000016	Jack Carrey	RG	03	03-100	9:00 AM	08:00	True	08:00	CONCRETE
EP00000015	Bill Owen	RG	02	00-000	7:00 AM	10:00	True	10:00	SITE-WORK

2. Save your changes.

Adding Change Requests

Add change requests as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, on to the **Change Requests** tab of the form, add a row.

2. In the **Reference Nbr.** column, select an existing change request of the project (as shown on the screenshot below).

Daily Field Report

The screenshot shows the 'Daily Field Report' application interface. At the top, there are standard toolbar buttons like Save & Close, Print/Email, and Actions. Below the toolbar, the form header includes fields for DFR ID (DFR-000002), Project (ITALIAN3 - Italian Restaurant), and Created By (admin - Tamara M). There are also status fields for Hold and Date (11/22/2019). The main content area has tabs for LABOR TIME AND ACTIVITIES, CHANGE REQUESTS, SUBCONTRACTORS, PROJECT ISSUES, WEATHER, VISITORS, and APPROVALS. The 'CHANGE REQUESTS' tab is active, showing a table with columns: *Reference Nbr., Change Date, Ext. Ref. Nbr., Description, Status, Cost Total, Line Total, Markup Total, Price Total, Last Modified By, and Last Modified On. One row is highlighted in pink, corresponding to the entry in the previous screenshot.

*Reference Nbr.	Change Date	Ext. Ref. Nbr.	Description	Status	Cost Total	Line Total	Markup Total	Price Total	Last Modified By	Last Modified On
> 000004	3/21/2019		Wet subfloor needs drying, cleaning and air...	Closed	1,380.00	1,656.16	1,208.68	2,864.84	admin - Tamara M	11/22/2019 7:...

3. On the table toolbar, click **Create New Change Request** to add a change request on the fly.
4. In the form that opens add a change request with the following settings:
- Description:** *A hole in the wall*
 - Change Date:** *08/20/2019*
5. On the **Estimation** tab, upload the estimation lines from the DFR_CR1.xlsx file, which is provided with the training materials.
6. Approve and save the change request.
7. Close the form.
8. On the **Change Requests** tab of the Daily Field Reports (PJ304000) form, verify that the created change request has been added to the table (as shown on the screenshot below).

Daily Field Report

The screenshot shows the 'Daily Field Report' application interface, similar to the one above but with a new entry added. The 'CHANGE REQUESTS' tab is active, showing a table with the same columns as before. Now, there are two rows: one for the previously selected change request (closed) and one new row for a change request with Reference Nbr. 000006, Change Date 8/20/2019, Description 'A hole in the wall', Status 'Open', and other details matching the new entry.

*Reference Nbr.	Change Date	Ext. Ref. Nbr.	Description	Status	Cost Total	Line Total	Markup Total	Price Total	Last Modified By	Last Modified On
> 000004	3/21/2019		Wet subfloor needs drying, cleaning and air...	Closed	1,380.00	1,656.16	1,208.68	2,864.84	admin - Tamara M	11/22/2019 7:...
> 000006	8/20/2019		A hole in the wall	Open	1,000.00	0.00	0.00	0.00	owen - Bill Owen	11/22/2019 7:...

Adding Change Orders

You can add change orders as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, open the **Change Orders** tab of the form.
2. On the tab, add a row and in the **Reference Nbr.** column, select an existing change order of the project.
3. On the table toolbar, click **Create New Change Order** to add a change order on the fly.

Registering Subcontractor Activities

Register subcontractors activities as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, switch to the **Subcontractors** tab of the form.
2. On the tab, add records of activities of the CONCCO and DOORSCO subcontractors with the following settings:

Vendor ID	Vendor Name	Sub Job	Cost Code	Number of Workers	Arrived	Departed	Working Hours Total
CONCCO	Suntech Concrete	03	03-000	3	09:00 AM	06:00 PM	27:00
DOORS-CO	Acme Doors & Glass	06	06-000	2	09:00 AM	06:00 PM	18:00

3. In the table, review the added records (shown on the screenshot below).

Vendor ID	Vendor Name	Sub Job	Cost Code	Number of Workers	Arrived	Departed	Working Hours Total
CONCCO	Suntech Concrete	03	03-000	3	9:00 AM	6:00 PM	27:00
DOORS-CO	Acme Doors & Glass	06	06-000	2	9:00 AM	6:00 PM	18:00

Reporting Project Issues

Report project issues as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, switch to the **Project Issues** tab of the form.
2. On the tab, add new row and in the **Project Issue ID** column, select an existing project issue to associate it with the report (as shown in the screenshot below).

Daily Field Report

SAVE & CLOSE PRINT/EMAIL ACTIONS ▾

* DFR ID:	DFR-000002	* Project:	ITALIAN3 - Italian Restaurant	Created By:	admin - Tamara M
Status:	On Hold	* Project Manager:	EP00000015 - Bill Owen		
<input checked="" type="checkbox"/> Hold * Date: 11/22/2019					
LABOR TIME AND ACTIVITIES		CHANGE REQUESTS		SUBCONTRACTORS	
				PROJECT ISSUES	
			CREATE NEW PROJECT ISSUE		
* Project Issue ID	Summary	Status	Priority	Sub Job	
IS-000003	Wet subfloor	Open	High	01	

Notice, that by clicking **Create New Project Issue** on the table toolbar, you can add a new project issue on the fly.

Reporting Weather Conditions

Add reports about weather conditions as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, switch to the **Weather** tab.
 2. On the tab, add rows with the weather conditions on the site with the following settings:

Time Observed	Sky	Temperature	Precipitation	Wind	Site Conditions	Delay	Description
07:37 AM	Cloudy	Warm	None	None	Dry	Cleared	Normal weather, no delay
4:30 PM	Few Clouds	Mild	None	Calm	Dry	Cleared	Warm, Dry day

3. In the table, attach the DFR_weather1.jpg file, which is provided with the training materials, to the first record. Attach the DFR_weather2.jpg file to the second record.
 4. In the table, review the added records (shown in the screenshot below).

Daily Field Report

The screenshot shows the 'Daily Field Report' form with the following details:

- DFR ID:** DFR-000002
- Status:** On Hold
- Date:** 8/20/2019
- Project:** ITALIAN3 - Italian Restaurant
- Project Manager:** EP00000015 - Bill Owen
- Created By:** admin - Tamara M

The 'WEATHER' tab is selected. Below it, there is a table with two rows of weather observations:

Time Observed	Sky	Temperature	Precipitation	Wind	Site Conditions	Delay	Description
7:37 AM	Cloudy	Warm	None	None	Dry	<input type="checkbox"/>	Normal weather, no delay
4:30 PM	Few Clouds	Mild	None	Calm	Dry	<input type="checkbox"/>	

Registering Visitors

Add records about site visitor as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, switch to the **Visitors** tab.
2. On the tab, add rows with details on site visitors with the following settings:

Visitor Type	Name	Business Account	Company	Arrived	Departed	Purpose of Visit	Area Visited/Inspected Entity	Description
Customer	Adam Smith	ITALIAN01	Italian Restaurants Co	5:00 PM	6:00 PM	Construction progress control site visit	Site - Basement	
Owner	Bill Owen	EP00000015	Sweet-Life Head Office and Wholesale Center	9:00 AM	6:00 PM	Review proposed change requests	Site - Wall with the hole, sub-floor	Internal CRs approved

Printing and Emailing the Daily Field Report

Print and email the daily field report as follows:

1. While you are still viewing the daily field report on the Daily Field Reports (PJ304000) form, click **Print/Email** on the form toolbar.

The following screenshots show the Daily Field Report Form (PJ644000) form.

> >I PRINT SEND EXPORT ▾

Daily Field Report		Company: SweetLife Fruits & Jams							
Project:	Italian Restaurant Project	Project ID:	ITALIAN3						
Date of DFR:	8/20/2019	DFR ID:	DFR-000002						
Day:	Tuesday	Status:	On Hold						
Project Manager:	EP00000015-Bill Owen	Created By:	admin-Tamara M						
Weather									
Time Observed	Sky	Temperature	Precipitation						
7:37 AM	Cloudy	Warm	None						
Wind	Site Condition	Delay	Description						
None	Dry	No	Normal weather, no delay						
									
4:30 PM	Few Clouds	Mild	None						
Calm	Dry	No							
Daily Field Report		Company: SweetLife Fruits & Jams							
									
Labor Time & Activities									
Employee	Earning Type	Sub Job	Cost Code Time	Time Spent	Billable Time	Description	Last		
EP00000017-Archibald Knorr	RG	01	01-300	9:00 AM	08:00	08:00	GENERAL over		
EP00000016-Jack Carrey	RG	03	03-100	9:00 AM	08:00	08:00	CONCRETE over		
EP00000015-Bill Owen	RG	02	00-000	7:00 AM	10:00	10:00	SITEWORK over		
Change Requests									
Reference Nbr.	Change Date	Ext.Ref.Nbr	Description	Status	Cost Total	Line Total	Markup Total	Price Total	L
000004	3/21/2019		Wet subfloor needs	Closed	1,380.00	1,656.16	1,208.68	2,864.84	a
000006	8/20/2019		A hole in the wall	Open	1,000.00	0.00	0.00	0.00	o
Subcontractors									
Vendor	Vendor Name	Sub Job	Cost Code	Number of Workers	Arrived	Departed	Working Hours	Description	Total
CONCCO	Suntech	03	03-000	3	9:00 AM	6:00 PM	09:00	27:00	CONCRETE WOOD, PLASTICS, COMPOSITES
DOORSCO	Acme Doors & 06	06-000	2		9:00 AM	6:00 PM	09:00	18:00	
Project Issues									
Project Issue ID	Summary	Status	Priority	Sub Job	Project Issue Type				
IS-000003	Wet subfloor	Open	High		GENERAL				
Visitors									
Visitor Type	Name	Company	Arrived	Departed	Purpose of Visit	Area Visited / Inspected Entity	Description		

2. Click **Send**.

3. In the **Email Activity** pop-up window, in the **To** box, select *Alphonse White*, and on the **Message** tab, type *Please review the document attached* (as shown in the screenshot below).

Email Activity

SAVE & CLOSE SEND REPLY ACTIONS ▾

* From:	System	
* To:	"Alphonse White"	
CC:		
BCC:		
* Subject:	Daily Field Report #DFR-000002 8/20/2019 ITALIAN3	

MESSAGE DETAILS

VISUAL Paragraph

Please review the document attached.

- Open the **All Emails** (CR306015) form and verify that your email with the DFR attached has been successfully sent to the customer.

All Emails

ALL RECORDS **OUTGOING EMAILS** INCOMING EMAILS FAILED EMAILS

				Fro	To	Subject
				Fro	To	Daily Field Report #DFR-000002 8/20/2019 ITALIAN3

Approving a Daily Field Report

Approve a daily field report as follows:

- Open the Daily Field Report (PJ304000) form.
- In the **DFR ID** box, select the report that you created earlier.
- In the Summary area, clear the **Hold** check box. The system changes the report status to *Pending Approval*.
- On the **Approvals** tab, review the record with the pending approval from Bill Owen (as shown on the screenshot below).

Daily Field Report

The screenshot shows the Daily Field Report form with the following details:

- DFR ID:** DFR-000002
- Status:** Pending Approval
- Project:** ITALIAN3 - Italian Restaurant Prj
- Project Manager:** EP00000015 - Bill Owen
- Date:** 8/20/2019
- Approvals Tab:** Shows a table with one row:

Assignee ID	Assigned To	Workgroup	Approved By (ID)	Approved By	Approval Date	Status	Reason
EP00000015	Bill Owen					Pending	

- On the form toolbar, click **Actions > Approve**.

Reviewing Added Entities of a Project

Review the newly added entities for a project as follows:

- Open the Projects (PM301000) form.
- In the **Project ID** box, select **ITALIAN3**.
- On the **Activity History** tab, verify that it contains records for labor activities added when you created the daily field report.

The screenshot shows the Projects form with the following details:

- Project ID:** ITALIAN3
- Status:** Active
- Description:** Italian Restaurant Project
- Financials:**
 - Assets: 0.00
 - Liabilities: 0.00
 - Income: 0.00
 - Expenses: 184,517.00
- Activity History Tab:** Shows a table with three rows:

Type	Summary	Status	Start Date	Category	Billable	Time Spent	Overtime	Billable Time	Billable Overtime	Workgroup	Owner
Time A...	SITWORK	Completed	8/20/2019 7:0		<input checked="" type="checkbox"/>	10:00	00:00	10:00	00:00		Bill Owen
Time A...	CONCRETE	Completed	8/20/2019 9:0		<input checked="" type="checkbox"/>	08:00	00:00	08:00	00:00		Jack Carrey
Time A...	GENERAL REQUIREMENTS	Completed	8/20/2019 9:0		<input checked="" type="checkbox"/>	08:00	00:00	08:00	00:00		Archibald Knorr

- On the **Change Requests** tab of the form, verify that it contains the change request added when you created the daily field report.

Projects

← SAVE & CLOSE ⌂ + ⌂ < > RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE O

* Project ID:	ITALIAN3	* Status:	Active	Assets:	0.00				
Customer:	ITALIAN01 - The Italian Company	<input type="checkbox"/> Hold	Liabilities:	0.00					
Template:	CONTM - Construction T&M Project		Income:	0.00					
* Description:	Italian Restaurant Project			Expenses:	184,517.00				
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	I
<input type="radio"/> <input type="checkbox"/> <input type="checkbox"/> Reference Nbr. Status *Change Date *Description Cost Total Line Total Markup Total Price Total									
0 00004 Closed 3/21/2019 Wet subfloor needs drying, cleaning and air... 1,380.00 1,656.16 1,208.68 2,864.84 1 00005 Closed 7/29/2019 French Style Window 1,890.00 2,264.98 1,285.39 3,550.37 > 0 00006 Open 8/20/2019 A hole in the wall 1,000.00 0.00 0.00 0.00									

Lesson 16: Lien Waiver Automation

A lien waiver is a compliance document involved in the payment process for a project. The party that receives a payment (for instance, a contractor, subcontractor, or material supplier) signs a lien waiver to waive their rights against the property in exchange for the payment.

Basic types of lien waivers:

- *Conditional* waivers for *partial* (or progress) payment: Used when a progress payment on the project is expected. A signed lien waiver of this type becomes effective immediately after the payment has been received.
- *Conditional* waivers for *final* payment: Used when the entire contract value is to be paid at one time or when the payment in question is the final payment for a project. A signed lien waiver of this type also becomes effective only after the payment has been received.
- *Unconditional* waivers for *partial* (or progress payment): Used when a progress payment on the project is expected. A lien waiver of this type becomes effective after it has been signed, regardless of whether the payment has been actually received.
- *Unconditional* waivers for *final* payment: Used for a one-time payment or for the final payment for a project. A lien waiver of this type becomes unconditionally effective once it has been signed even if no payment has been actually received.

Users can manually create new lien waivers, or automatic generation of lien waivers can be set up in the system, separately for conditional and unconditional lien waivers.

Learning Objectives

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

- Configure automatic generation of lien waivers
- Set up warnings on outstanding lien waivers
- Configure the mailing of lien waivers
- Process lien waivers

Story

We want conditional lien waivers to be automatically generated when we submit payments linked to AP bills.

System Preparation

Sign in to the system by using the *admin* login and the *123* password.

Configuring the Mailing of Lien Waivers

The processing of lien waivers includes emailing the documents to vendors who should return them signed. So that the system can generate emails with lien waivers attached, mailing should be properly configured.

To configure the mailing, do the following:

1. Create a notification template for lien waivers as follows:
 - a. On the Notification Templates (SM2040PL) form, click **+** (New Record) on the form toolbar.
The Notification Templates (SM204003) form opens.
 - b. In the **Screen Name** box, select the *Print/Email Lien Waivers (CL502000)* form.
 - c. In the **Description** box, type: Lien Waivers.
 - d. In the **Subject** box, type: Lien waiver email.
 - e. In the text editor area on the **Message** tab, specify the following text:

Dear Vendor,

Here's your lien waiver.

Sincerely yours,

SweetLife

- f. Save the changes.

When generating emails with lien waivers, the system will use the subject and the message body from the notification template.

2. On the Vendor Classes (AP201000) form, select the *SUBCON* vendor class, click the **Mailing Settings** tab, and do the following:
 - a. Make sure that the *Conditional Final* and *Conditional Partial* mailings are included in the **Mailings** table and marked as **Active**.
 - b. For each of these mailings, select the *Lien Waivers* notification template in the **Notification Template** column and in the **Recipients** table below, add a row with *Remittance* selected in the **Contact Type** column and default settings specified in other columns.
 - c. Make sure that in the **Report** column, *CL642003* is specified for the *Conditional Final* mailing and *CL642001* for the *Conditional Partial* mailing. These are the identifiers of the printed forms that will be generated and attached to an email.
 - d. Save the changes.

Vendor Classes

← SAVE & CLOSE ⌂ + ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ ADD TO PROJECT

* Class ID:	SUBCON	<input type="button" value=""/>			
Description:	Subcontractors				
GENERAL SETTINGS GL ACCOUNTS ATTRIBUTES MAILING SETTINGS					
Mailings					
<input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/>					
Mailing ID	Branch	Email Report Account	Notification Template	Format	Active
Conditional Final	CL 64.20.03	Lien Waiver	PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
> Conditional Partial	CL 64.20.01	Lien Waiver	PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PURCHASE ORDER	PO.64.10.00		PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RQPROPOSAL	RQ.61.10.00		PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SUBCONTRACT	syste...	SC.64.10.00 Subcontracts	PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unconditional Final	CL 64.20.04		PDF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
 Recipients					
<input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/>					
Contact Type	Contact ID	Format	Active	Bcc	
> Remittance		PDF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

These settings will be copied for any new vendor of the class. Note that mailing settings may be overridden and set up as needed for any individual vendor. When generating emails with lien waivers, the system will specify the email address of the remittance contact of the vendor (which you can review on the **Payment Settings** tab of the Vendors form) as the recipient address. Emails will be sent from the default system email account.

Configuring Automatic Generation of Lien Waivers

1. On the **Lien Waiver Settings** tab of the Compliance Preferences (CL301000) form, do the following:
 - a. Select the **Automatically Generate Lien Waivers** check box in the **Conditional Lien Waivers** group of elements.
 - b. Review the default settings and click **Save** on the form toolbar.

The screenshot shows the 'Compliance Preferences' page with the 'LIEN WAIVER SETTINGS' tab selected. The 'CONDITIONAL LIEN WAIVERS' section is highlighted with a red box. It contains the following settings:

- Automatically Generate Lien Waivers
- Generate Lien Waivers on: Paying AP Bill
- Through Date: Posting Period End Date
- Final Lien Waiver Amount: AP Bill Amount

The 'UNCONDITIONAL LIEN WAIVERS' section also contains settings for generating lien waivers automatically, but they are not highlighted.

Because the **Hold Documents on Entry** check box is selected on the **General Settings** tab of the Accounts Payable Preferences (AP101000) form, a lien waiver will be generated when the status of the accounts payable check (or checks) changes from *On Hold* to *Pending Printing* or *Balanced*. (If the **Hold Documents on Entry** check box is cleared, a lien waiver is generated immediately when the accounts payable check is created with the *Pending Printing* or *Balanced* status.)

The through date is set to be the last day of the posting period of the accounts payable bill. This date defines by which date the party that signs a lien waiver agrees to waive their rights for the work completed since the previous lien waiver (if any).

The amount of an automatically generated final conditional lien waiver will equal the amount of the accounts payable bill.

2. On the **Lien Waiver Settings** tab of the Projects (PM301000) form, for the **HOTEL** project, review the **Through Date** setting and then, in the table below it, specify the following settings:
 - **Vendor Class:** *SUBCON* (this indicates that conditional lien waivers may be automatically generated only for vendors that belong to this vendor class)
 - **Minimum Commitment Amount:** *2000* (lien waivers will be automatically generated for commitments whose amount is larger than or equal to the specified minimum amount)

The screenshot shows the Project Management interface with the following details:

- Project ID:** HOTEL
- Customer:** EQUGRP - The Equity Group Investor
- Status:** Active
- Assets:** 0.00
- Liabilities:** 0.00
- Income:** 0.00
- Expenses:** 1,386,750.00

Below the main project information, there are tabs for **SUMMARY**, **TASKS**, **REVENUE BUDGET**, **COST BUDGET**, **BALANCES**, **COMMITMENTS**, **INVOICES**, **CHANGE ORDERS**, **CHANGE REQUESTS**, **UNION LOCALS**, **ACTIVITY HISTORY**, and **LIEN WAIVER SETTINGS**. The **LIEN WAIVER SETTINGS** tab is currently selected.

Under the **LIEN WAIVER SETTINGS** tab, there are sections for **CONDITIONAL LIEN WAIVERS** and **UNCONDITIONAL LIEN WAIVERS**. The **CONDITIONAL LIEN WAIVERS** section includes a dropdown for **Through Date** set to **Posting Period End Date**. The **UNCONDITIONAL LIEN WAIVERS** section includes a dropdown for **Through Date** set to **AP Check Date**.

At the bottom of the screen, there is a table showing vendor classes. It lists **Vendor Class** (SUBCON) and **Minimum Commitment Amount** (2,000.00).

3. Save the changes.
4. On the **General Settings** tab of the Vendor Classes (AP201000) form, for the **SUBCON** vendor class, select the **Generate Lien Waivers Automatically** check box to indicate that lien waivers will be automatically generated for vendors that belong to this vendor class. The lien waiver settings specified for the particular project will be used for generating the lien waivers. Save the changes.

Vendor Classes

The screenshot shows the **Vendor Classes** form for the **SUBCON** vendor class. The **GENERAL SETTINGS** tab is selected.

GENERAL SETTINGS section:

- * Class ID:** SUBCON
- Description:** Subcontractors

DEFAULT GENERAL SETTINGS section:

- Country:** US - United States of America
- Tax Zone ID:** (empty)
- Require Tax Zone**

DEFAULT PURCHASE SETTINGS section:

- Shipping Terms:** (empty)
- Receipt Action:** Accept but Warn

DEFAULT FINANCIAL SETTINGS section:

- Terms:** 30D - 30 Days
- Payment Method:** CHECK - Check Payment
- Cash Account:** (empty)
- Payment By:** Due Date
- Pay by Line**
- Apply Retainage**

DEFAULT PRINT AND EMAIL SETTINGS section:

- Print Orders**
- Send Orders by Email**

DEFAULT LIEN WAIVER SETTINGS section (highlighted with a red border):

- Generate Lien Waivers Automatically**

5. On the **General Info tab** of the Vendors (AP303000) form, create a vendor with the following settings specified:

- **Vendor ID:** ARCHCO
- **Vendor Name:** Architectural Design Company
- **Email:** main@abc.con
- **Vendor Class:** SUBCON

Make sure that the **Generate Lien Waivers Based on Project Settings** check box is selected.

Vendors

The screenshot shows the Oracle Vendors application interface. At the top, there is a toolbar with various icons: back, forward, search, new, edit, delete, etc. Below the toolbar, the vendor details are displayed:

* Vendor ID:	ARCHCO	* Status:	Active	Balance:	0.00
* Vendor Name:	Architectural Design Company			Prepayment Balance:	0.00
				Retained Balance:	0.00

Below the details, there are several tabs: GENERAL INFO (selected), PAYMENT SETTINGS, PURCHASE SETTINGS, CONTACTS, ATTRIBUTES, ACTIVITIES, and GL ACCOUNTS.

GENERAL INFO tab details:

- MAIN CONTACT**: Company Name: Architectural Design Company; Attention: (empty); Email: main@adc.con; Web: (empty); Phone 1: (empty); Phone 2: (empty); Fax: (empty); Account Ref.#: (empty); Parent Account: (empty).
- MAIN ADDRESS**: Address Line 1: (empty); Address Line 2: (empty); City: (empty); *Country: US - United States of America; State: (empty); Postal Code: (empty); VIEW ON MAP button; County: (empty).
- VENDOR DEFAULTS**: Cost Code: (empty); Account Group/Item: (empty).

FINANCIAL SETTINGS tab details:

- * Vendor Class: SUBCON - Subcontractors; Terms: 30D - 30 Days.
- VENDOR PROPERTIES**: Landed Cost Vendor (unchecked); Vendor is Tax Agency (unchecked).
- RETAINAGE SETTINGS**: Apply Retainage (checked); Retainage Percent: 0.00000.
- LIEN WAIVER SETTINGS** (highlighted with a red box): Generate Lien Waivers based on Project settings (checked).

6. Save the vendor record.

Working with Lien Waivers

1. On the Subcontracts (SC301000) form, create a subcontract for the ARCHCO vendor with the following document line specified on the **Document Details** tab:

- **Account Group/Item:** MATERIAL
 - **Project:** HOTEL
 - **Sub Job:** 02 - SITEWORK
 - **Cost Code:** 02-000
 - **Order Qty.:** 100
 - **Unit Cost:** 500

The total amount of this commitment is **50000**, which exceeds the minimum commitment amount specified for the vendor and project.

2. Save the changes.

(Now you can review the new commitment record on the **Commitments** tab of the Projects (PM301000) form for the *HOTEL* project.)

3. Take the subcontract off hold—that is, clear the **Hold** check box.

4. On the form toolbar, click **Actions** > **Enter AP Bill**.

The Bills and Adjustments (AP301000) form opens, with *Bill* selected in the **Type** box by default and with document details copied from the subcontract.

5. Take the bill off hold—that is, clear the **Hold** check box.

6. Click **Release** on the form toolbar to release the bill.

7. On the form toolbar, click **Actions > Pay Bill/Apply Adjustment**.

The Checks and Payments (AP302000) form opens, with details copied from the bill.

8. Review the status of the document—the check should be on hold. Review the **Compliance** tab—it should be empty at this point.

Checks and Payments

The screenshot shows the 'Checks and Payments' application interface. A specific check document is selected, with its details visible in the main form area. The 'Status' field is set to 'On Hold' and the 'Hold' checkbox is checked. The 'Compliance' tab is currently active, showing an empty table below it. The table has columns for various compliance-related fields like 'Expiration Date', 'Document Type', 'Creation Date', 'Status', 'Requir', 'Receiv from Vendo', 'Received Date (Vendor)', 'Proces', 'Voided', 'Create Autom', and 'Sent Date'. There are no rows in the table.

9. While on the **Compliance** tab, clear the **Hold** check box in the Summary area and then save the changes.

Note that a lien waiver record appears in the table on the **Compliance** tab.

Checks and Payments

This screenshot shows the same 'Checks and Payments' application interface after changes have been made. The 'Status' field now displays 'Pending Print' and the 'Hold' checkbox is unchecked. The 'Compliance' tab is still active, and the table now contains a single row for a 'Lien Waiver' document. This row includes the date '11/29/2019' and several checkboxes, with the last two being checked (highlighted by a red border). The table structure remains the same as in the previous screenshot.

Note that the same lien waiver record appears on the **Compliance** tab of the Projects (PM301000), Vendors (AP303000), Subcontracts (SC301000), and Bills and Adjustments (AP301000) forms for the involved documents.

Also, the record appears on the Compliance Management (CL401000) form.

10. On the Print/Email Lien Waivers (CL502000) form, do the following:

- a. In the **Action** box, select *Email Lien Waivers*.
- b. Select the unlabeled check box for the lien waiver that you want to email to the vendor.
- c. Click **Process** on the form toolbar.

The screenshot shows the 'Print/Email Lien Waivers' form. The 'Action' dropdown is set to 'Email Lien Waivers'. The 'Processed' checkbox in the grid is highlighted with a red box. The grid displays various columns such as Creation Date, Document Category, Status, Required, Received from Vendor, Received from Joint Payee (Vendor), Processed, Voided, Created Automatically, Project, Customer, Customer Name, Vendor, Vendor Name, and Subcontract.

If an email has been successfully created, the lien waiver is marked as processed (that is, the Processed check box becomes selected in the lien waiver details).

11. Review the list of outgoing emails on the **All Records** tab of the Outgoing (CO409020) form—the newly created email should be at the top of the list.

Click the link in the **Subject** column and review the email on the Email Activity form that opens. Click **Files** on the title bar to review the printed form of the lien waiver attached to the email.

The screenshot shows the 'Email Activity' form. The 'FILES (1)' tab is selected. The message body contains the following text:

Dear Vendor,
Here's the new lien waiver.
Sincerely yours,
SweetLife

12. On the **Lien Waivers** tab of the Compliance Management form, review the details of the processed lien waiver.

When you receive a signed copy of the lien waiver, you need to manually mark it as received by selecting the **Received from Vendor** check box. (Note that the check box should remain cleared for the next exercise).

Document Type	Creation Date	Document Category	Status	Required	Received from Vendor	Received Date (Vendor)	Received from Joint Payee (Vendor)	Received Date (Joint Payee (Vendor))	Processor	Voided	Created Automatic	Sent Date	Effective Date
Lien Waiver	11/29/2019	Conditional Partial		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Working with Outstanding Lien Waivers

An outstanding lien waiver is a lien waiver that has not been marked as received and whose **Through Date** is earlier than the current business date in the system.

- On the **Lien Waiver Settings** tab of the Compliance Preferences (CL301000) form, select the following check boxes:
 - Warn of Outstanding Lien Waivers During AP Bill Entry:** A warning will appear if the system finds an outstanding lien waiver when the user attempts to enter an accounts payable bill on the Bills and Adjustments (AP301000) form.
 - Warn of Outstanding Lien Waivers when Selecting AP Bill for Payment:** A warning will appear if the system finds an outstanding lien waiver when the user attempts to select an accounts payable bill for payment on the Checks and Payments (AP302000) form.
 - Stop Payment of AP Bill When There Are Outstanding Lien Waivers:** The system will show an error message and stop the payment in the following circumstances:
 - On the Bills and Adjustments form, when a user clicks **Actions > Pay Bill/Apply Adjustment** on the form toolbar for an accounts payable bill that has a linked outstanding lien waiver.
 - On the Checks and Payments form, when a user attempts to take off hold or release a check that has a linked outstanding lien waiver.
 - On the Prepare Payments (AP503000), Process Payments / Print Checks (AP505000), or Release Payments (AP505200) form, when the user initiates the processing of the document. Save the changes.

Compliance Preferences ☆

LIEN WAIVER SETTINGS

OUTSTANDING LIEN WAIVERS

- Warn of Outstanding Lien Waivers During AP Bill Entry
- Warn of Outstanding Lien Waivers When Selecting AP Bill for Payment
- Stop Payment of AP Bill When There Are Outstanding Lien Waivers

CONDITIONAL LIEN WAIVERS

Automatically Generate Lien Waivers

Generate Lien Waivers on: Paying AP Bill

Through Date: Posting Period End Date

Final Lien Waiver Amount: AP Bill Amount

UNCONDITIONAL LIEN WAIVERS

Automatically Generate Lien Waivers

Generate Lien Waivers on: Paying AP Bill

Through Date: AP Check Date

Final Lien Waiver Amount: Amount Paid

2. Change the business date to the last day of the next month.

Thus, the lien waiver that was generated in the previous exercise will be considered as an outstanding lien waiver because it hasn't been marked as received and its **Through Date** is earlier than the current business date.

3. On the Bills and Adjustments (AP301000) form, do the following:**a.** Start entering a new bill for the ARCHCO vendor.

When you start entering a document detail line and specify the *HOTEL* project, a warning appears next to the Vendor box in the Summary area of the form. This warning appears because the **Warn of Outstanding Lien Waivers During AP Bill Entry** check box is selected on the Compliance Preferences (CL301000) form.

Bills and Adjustments

Type: Bill Vendor: ARCHCO - Architectural Design Company

Reference No: Status: Hold * Cash Discount... 10 Days Apply Retainage

* Date: 12/3/2019 * Post Period: 12-2019 Vendor Ref:

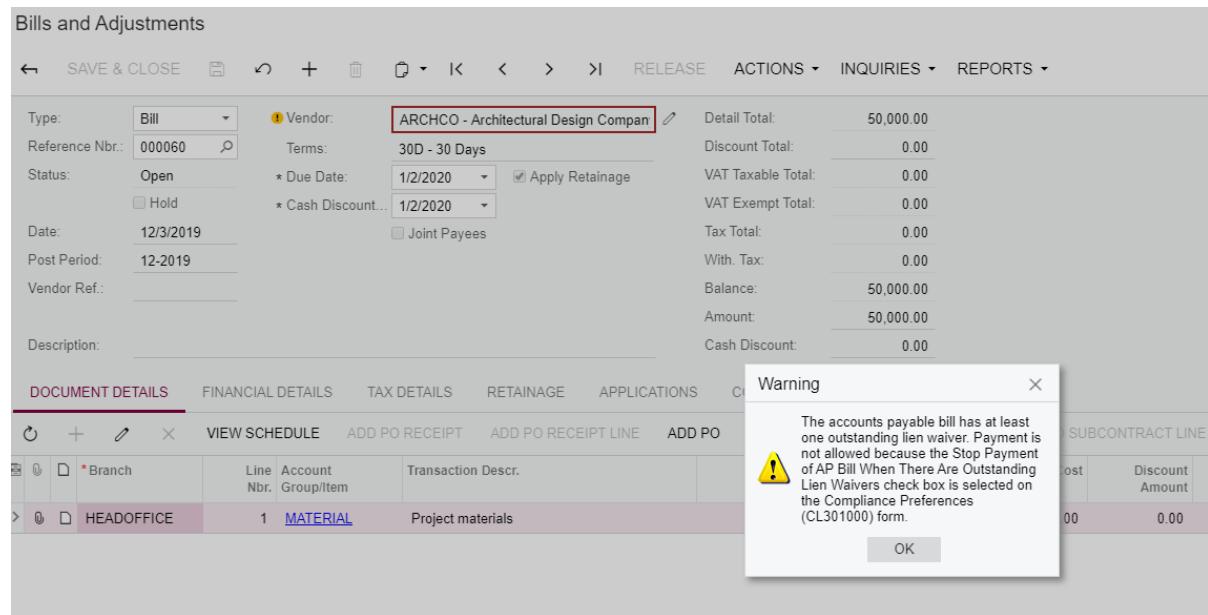
Description:

DOCUMENT DETAILS		FINANCIAL DETAILS	TAX DETAILS	RETAINAGE	APPLICATIONS	COMPLIANCE							
Image	Retainage	Amount	Balance	* Account	Description	* Project	Sub Job	Cost Code	Non Billable	Tax Category	Expense Date	PO Number	Subc
0000	0.00	50.000.00	0.00	54500	Project Material Expense	HOTEL							

b. Enter all necessary settings and save the changes to create the bill anyway.**c.** Clear the **Hold** check box in the Summary area and click **Release** on the form toolbar.

d. Click Actions > Pay Bill/Apply Adjustment.

An error message is displayed notifying you that no payment can be created for the bill because it is linked to at least one outstanding lien waiver. This message appears because the **Stop Payment of AP Bill When There Are Outstanding Lien Waivers** check box is selected on the Compliance Preferences (CL301000) form.



e. Click OK to close the Warning dialog box.

- On the Checks and Payments (AP302000) form, create a new check for the **ARCHCO** vendor, and on the **Documents to Apply** tab, select the bill created in the previous step and specify a line number in respective columns.

Immediately after that, the system displays a warning that the vendor has at least one outstanding lien waiver.

This warning appears because the **Warn of Outstanding Lien Waivers when Selecting AP Bill for Payment** check box is selected on the Compliance Preferences (CL301000) form.

Checks and Payments ☆

← SAVE & CLOSE ⌂ + ⌂ K < > ⌂ RELEASE VOID ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

Type:	Check	Vendor:	ARCHCO - Architectural Design Compan	Payment Amount:	0.00																			
Reference Nbr.:	000036	* Payment Meth...	CHECK	Unapplied Balance:	-50,000.00																			
Status:	On Hold	* Cash Account:	10200WH - Wholesale Checking	Application Amount:	50,000.00																			
<input checked="" type="checkbox"/> Hold		<input type="checkbox"/> Joint Check	Finance Charges: 0.00																					
* Application Date:	12/3/2019	Description:																						
* Application Pe...	12-2019																							
Payment Ref.:																								
DOCUMENTS TO APPLY		APPLICATION HISTORY	FINANCIAL DETAILS	REMITTANCE INFORMATION	FINANCE CHARGES	COMPLIANCE																		
<input type="button"/> + <input type="button"/> X LOAD DOCUMENTS <input type="button"/> <input type="button"/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Branch</th> <th>Document Type</th> <th>*Reference Nbr.</th> <th>Line Nbr.</th> <th>Inventory ID</th> <th>Project</th> <th>Project Task</th> <th>Cost Code</th> <th>Account</th> </tr> </thead> <tbody> <tr> <td>HEADOFFICE</td> <td>Bill</td> <td>000060</td> <td>1</td> <td>MATERIAL</td> <td>HOTEL</td> <td>02</td> <td>02-000</td> <td>54500</td> </tr> </tbody> </table>							Branch	Document Type	*Reference Nbr.	Line Nbr.	Inventory ID	Project	Project Task	Cost Code	Account	HEADOFFICE	Bill	000060	1	MATERIAL	HOTEL	02	02-000	54500
Branch	Document Type	*Reference Nbr.	Line Nbr.	Inventory ID	Project	Project Task	Cost Code	Account																
HEADOFFICE	Bill	000060	1	MATERIAL	HOTEL	02	02-000	54500																
! The vendor has at least one outstanding lien waiver. HOTEL -The Beach Hotel and Condominiums, New York, SC-00005																								

Now, before you continue your work with this vendor, you may want to remind them that you need to receive the signed lien waiver first (and manually mark the corresponding lien waiver as received).

5. Change the business date back to the current date.

Lesson 17: Compliance

If you work with a vendor that has no valid insurance policies, certificates, licenses, or other compliance documents, you expose your business to certain risks. In Acumatica ERP Construction Edition, you can track compliance items for different types of entities, such as vendors, projects, bills, checks, and subcontracts, so that this information can be used for in-place warnings to users.

Learning Objectives

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

- Configure categories and statuses for compliance documents
- Enter compliance documents for a vendor
- Track expired compliance documents

Story

Our vendor, Standard Hardware Company, has provided us with their OSHA certificate and their General Liability insurance so we will enter this information in the system.

System Preparation

Sign in to the system by using the *admin* login and *123* password.

Configuring Document Categories and Statuses

On the **Custom Attributes** tab of the Compliance Preferences (CL301000) form, do the following:

1. Enter as follows the categories of insurance policies that you are going to track:
 - a. In the **Attribute** box, select *Insurance*.
 - b. In the table below, in the **Value** column, specify the following values:
 - General Liability Coverage
 - Worker's Compensation Insurance
 - Commercial Automotive Insurance
 - Surety Bonds
 - Asset Protection

Compliance Preferences ☆

* Attribute: Insurance

	* Value
0	General Liability Coverage
0	Worker's Compensation Insurance
0	Commercial Automotive Insurance
0	Surety Bonds
> 0	Asset Protection

2. Enter as follows the categories of certificates:

- In the **Attribute** box, select *Certificate*.
- In the **Value** column, specify the following values:
 - Safety Certification
 - Hazardous Materials Certification
 - Occupational Safety and Health Administration (OHSA)
 - Project Management Institute (PMI)
 - Leadership in Energy & Environmental Design (LEED)

Compliance Preferences ☆

* Attribute: Certificate

	* Value
0	Safety Certification
0	Hazardous Materials Certification
0	Occupational Safety and Health Administra...
0	Project Management Institute (PMI)
> 0	Leadership in Energy & Environmental Des...

3. Enter the statuses of compliance documents that you may use for informational purposes:

- a. In the **Attribute** box, select *Status*.
- b. In the table, specify the following statuses:
 - *Valid*
 - *Expired*

The screenshot shows the 'Compliance Preferences' interface. At the top, there are tabs for 'LIEN WAIVER SETTINGS', 'LIEN WAIVER REPORTING SETTINGS', 'CUSTOM ATTRIBUTES' (which is currently selected), and 'COMMON ATTRIBUTES'. Below these tabs, there is a search bar with the placeholder text '*Attribute: Status'. Underneath the search bar is a row of icons: a circular arrow, a plus sign, a minus sign, a double left arrow, and a delete icon. Below this row is a table with two columns: 'Value' and 'Status'. The first row contains 'Valid' and a blue checkmark. The second row contains 'Expired' and a red checkmark, which is highlighted with a pink background.

4. Save the changes.

Working with Compliance Documents

1. On the **All Records** tab of the Compliance Management (CL401000) form, add a row to the table with the following settings specified:
 - a. **Document Type:** *Certificate*
 - b. **Creation Date:** Current date
 - c. **Document Category:** *Occupational Safety and Health Administration (OHSA)*
 - d. **Status:** *Valid*
 - e. **Required:** Selected
 - f. **Received from Vendor:** Selected
 - g. **Effective Date:** Start of the current year
 - h. **Expiration Date:** End of the current month
 - j. **Vendor:** *HARDCO*
 - k. **Certificate Number:** 123456
2. Save the changes.
3. On the same form, add another row with the following settings specified:

- a. Document Type:** *Insurance*
 - b. Creation Date:** Current date
 - c. Document Category:** *General Liability Coverage*
 - d. Status:** *Valid*
 - e. Required:** Selected
 - f. Received from Vendor:** Selected
 - g. Effective Date:** Start of the current year
 - h. Expiration Date:** End of the current month
 - j. Limit:** 10,000,000
 - k. Vendor:** *HARDCO*
 - l. Insurance Company:** *Insurance of NY*
 - m. Policy:** 654321

4. Save the changes.

5. On the Vendors (AP303000) form, select the *HARDCO* vendor and review the information about compliance documents on the **Compliance** tab.

Vendors

SAVE & CLOSE ACTIONS INQUIRIES REPORTS

* Vendor ID:	HARDCO	* Status:	Active	Balance:	0.00
* Vendor Name:	Standard Hardware Company		Prepayment Balance:	0.00	
			Retained Balance:	0.00	

GENERAL INFO PAYMENT SETTINGS PURCHASE SETTINGS CONTACTS ATTRIBUTES ACTIVITIES GL ACCOUNTS MAILING SETTINGS COMPLIANCE

	Expiration Date	* Document Type	Creation Date	Status	Requie	Receiv from Vendo	Received Date (Vendor)	Proces	Voided	Create Autom	Sent Date	Project
>	12/31/2019	Certificate	12/11/2019	Valid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/11/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	12/31/2019	Insurance	12/11/2019	Valid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/11/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

6. Change the business date to the first day of the next month.

Because we have specified the expiration date of the compliance document as the last day of the current month, the system now regards those documents as expired.

7. Review the warnings for each line on the **Compliance** tab of the Vendors form.

Vendors

The screenshot shows the Vendors screen with the following details:

- Vendor ID:** HARDCO
- Status:** Active
- Balance:** 0.00
- Prepayment Balance:** 0.00
- Retained Balance:** 0.00
- GENERAL INFO:** Standard Hardware Company
- PAYMENT SETTINGS:** Not visible in the screenshot.
- PURCHASE SETTINGS:** Not visible in the screenshot.
- CONTACTS:** Not visible in the screenshot.
- ATTRIBUTES:** Not visible in the screenshot.
- ACTIVITIES:** Not visible in the screenshot.
- GL ACCOUNTS:** Not visible in the screenshot.
- MAILING SETTINGS:** Not visible in the screenshot.
- COMPLIANCE:** This tab is selected.

In the Compliance section, there is a table with two rows:

Expiration Date	* Document Type	Creation Date	Status	Requir	Receiv from Vendo	Received Date (Vendor)	Proces	Voided	Create Autom	Sent Date	Project
12/31/2019	Certificate	12/11/2019	Valid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/11/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
12/31/2019		12/11/2019	Valid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/11/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

A yellow callout box highlights the first row with the message "Compliance document is expired."

8. On the Bills and Adjustments (AP301000) form, start creating a bill for the HARDCO vendor.

As soon as you specify the HARDCO vendor, a warning about expired compliance appears next to it.

Bills and Adjustments

The screenshot shows the Bills and Adjustments screen with the following fields:

- Type:** Bill
- Reference Nbr:** <NEW>
- Vendor:** HARDCO - Standard Hardware Comp
- Status:** On Hold
- * Due Date:** 1/31/2020
- * Cash Discount:** 1/31/2020
- * Date:** 1/1/2020
- * Post Period:** (empty)
- Vendor Ref.:** (empty)
- Description:** (empty)
- Detail Total:** 0.00
- Discount Total:** 0.00
- VAT Taxable Total:** 0.00
- VAT Exempt Total:** 0.00
- Tax Total:** 0.00
- With. Tax:** 0.00
- Balance:** 0.00
- Cash Discount:** 0.00

A yellow callout box highlights the vendor field with the message "Expired Compliance."

9. Change the business date back to the current date.

Lesson 18: Mobile App

The Acumatica mobile app, which is available for iOS and Android, offers you mobile access to CRM, sales orders, time cards, and much more—anytime, anywhere. This is especially convenient for construction projects when most of the work is done in the field instead of the office. Depending on the device you use, the Acumatica mobile app should be downloaded and installed from the Apple App Store (for iOS) or Google Play Store (for Android).

Learning Objectives

In this lesson, you will learn how you can use the Acumatica mobile app to do the following:

- Create and submit a time card
- Create a change request
- Approve time cards and change requests

Story

Suppose that Regina Wiley, an intern at SweetLife assigned to the HOTEL3 project, worked on a construction site on the week of March 3, 2019, and needs to report the time spent on the HOTEL3 project during the week. Regina usually works in the field so she uses the Acumatica mobile app to create a time card and submit it for approval.

Further suppose that an interior designer, who is also working on the HOTEL3 project, has an idea that is going to affect the project budget. Regina Wiley needs to create a change request detailing potential changes to the project budget and including a picture of a remodeled bathroom.

As a project manager of HOTEL3 and a direct supervisor of Regina Wiley, Bill Owens needs to review the work done by Regina and approve the documents prepared by her.

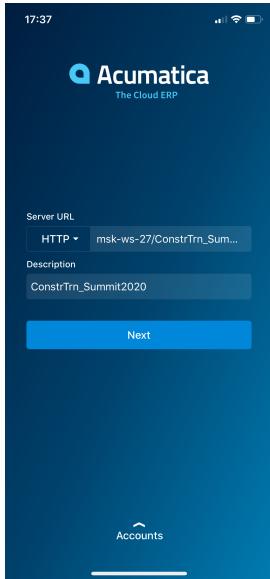
System Preparation

Before you start using the Acumatica mobile app, do the following:

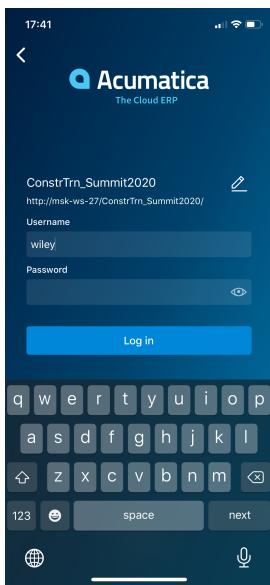
1. Make sure you have access to the domain where your Acumatica ERP instance is deployed. For instance, you might need to have a VPN configured.
2. Download the mobile app for your iOS or Android device.
3. Add an account to access your Acumatica ERP website on a mobile device.
4. In the web version of your Acumatica ERP website, on the Projects (PM301000) form, for the *HOTEL3* project, on the **Tasks** tab, in the **Approver** column, specify *EP00000015 - Bill Owen* for the *01* task. Save your changes.

Signing In for the First Time

1. On the server URL screen of your Acumatica mobile app, in the **Server URL** field, specify the web address of the server on which the instance was deployed.



2. On the user credentials screen, which opens, sign in by using the *wiley* login and the *123* password.



Entering a Time Activity

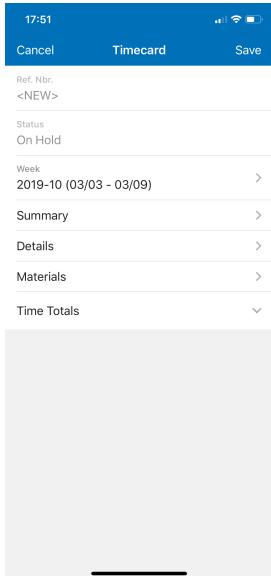
To enter a time activity for the time spent on site for the *HOTEL3* project, do the following:

1. On the main menu, tap on the **Employee Time Cards** icon.
2. Tap the plus sign to create a new time card.
3. Tap the **Week** group.

4. On the **Week** screen, search for the 2019-10 week and select it from the search results.



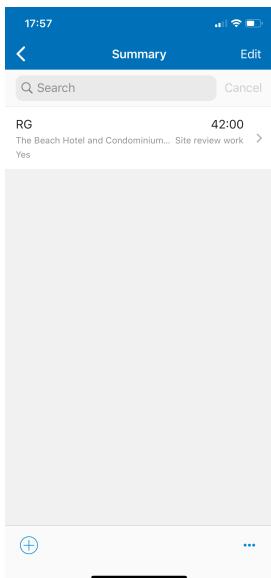
5. Tap the **Summary** group.



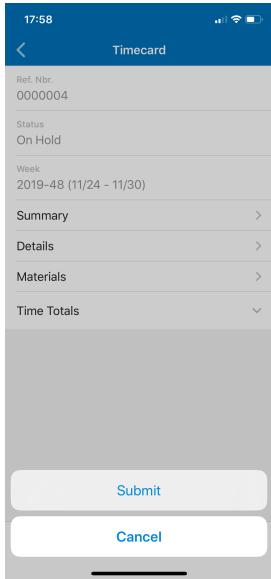
6. On the **Summary** screen, tap the plus sign, and specify the following details:

- **Earning Type:** RG
- **Project:** HOTEL3
- **Sub Job:** 01
- **Labor Item:** SITEREVIEW

- **Cost Code:** 01-311
- **Description:** Site review work
- **Mon:** 08:00
- **Tue:** 10:00
- **Wed:** 12:00
- **Thu:** 08:00
- **Fri:** 07:00
- **Sat:** 02:00
- **Sun:** 03:00



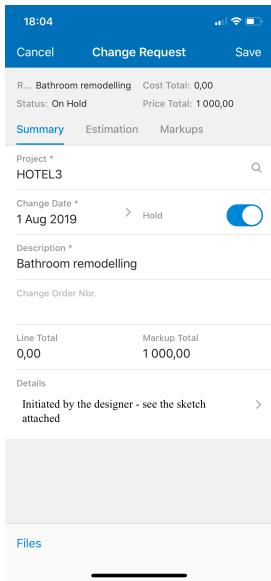
7. Return back to the **Time Card** screen, and save the time card.
8. On the **Time Card** screen, tap the More button to bring up the action menu, and tap **Submit** to send the time card for approval.



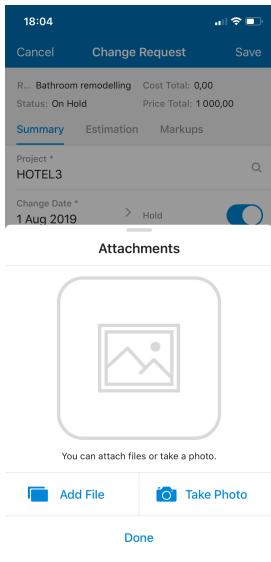
Creating a Change Request

Create a new change request as follows.

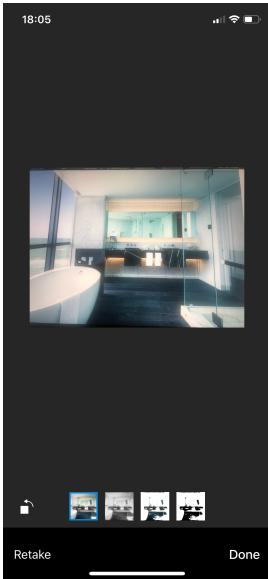
1. On the main menu, tap **Change Requests**.
2. On the **Change Requests** screen, tap the plus sign to add a new change request.
3. On the **Summary** tab of the **Change Request** screen, which opens, specify the following details:
 - **Project:** HOTEL3
 - **Description:** Bathroom remodeling



4. Save the change request.
5. Tap **Files** to add an attachment to the change request.
6. On the **Attachments** screen, tap **Add File** to select an existing file.

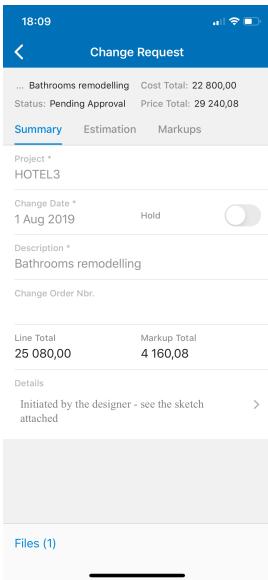


Alternatively, you can also tap **Take Photo** to take a new picture using the camera on your device.



- After you have selected the files to attach to the change request, tap **Done**.

The number of attached files is indicated in the parentheses next to the **Files** button.



- Tap **Details**.

On the **Details** screen, which opens, type `Initiated by designer - see sketch attached`, and return to the previous screen.

10. On the **Markups** tab, leave the default values.

11. On the **Estimations** tab, tap the plus sign to add a new estimation.

12.On the **Estimation** screen, specify the following values:

- **Project Task:** 02
- **Account Group:** LABOR
- **Cost Code:** 01-330
- **Inventory ID:** Empty
- **Quantity:** 20.00
- **UOM:** Empty
- **Unit Cost:** 1200.00
- **Price Markup (%):** 10.00 (selected by default based on project preferences)
- **Revenue Account Group:** REVENUE (specified by default based on the account group)
- **Revenue Code:** 02-000
- **Unit Price:** 1320.00 (calculated automatically)

13.On the **Summary** tab, remove the change request from hold.

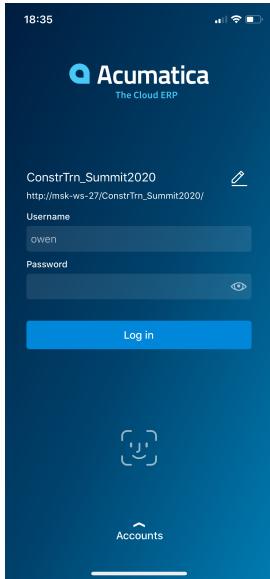
14.Notice that the status of the request is now *Pending Approval*.

15.Save the change request.

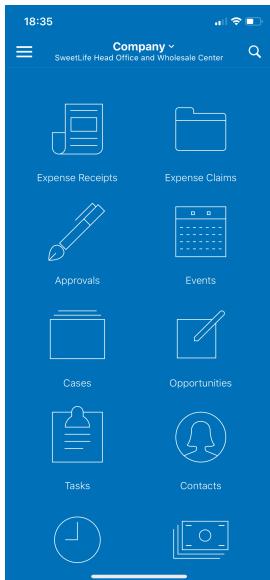
Approving a Time Card and Change Request

To approve the time card and change request, do the following:

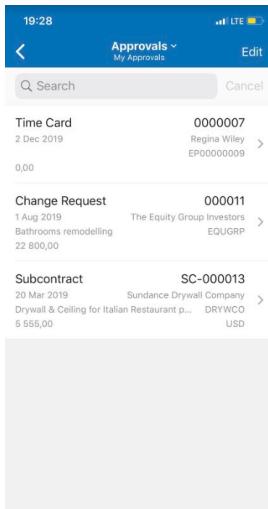
1. Sign in to the Acumatica mobile app by using the *owen* login and the *123* password.



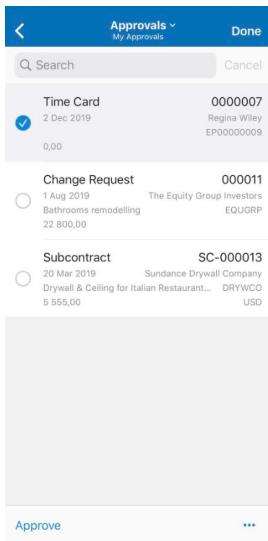
2. On the main menu, tap **Approvals**.



On the **Approvals** screen, which opens, documents pending your approval are displayed.



- To approve the time card, tap **Edit**, select the time card that you want to approve, and then tap **Approve** at the bottom of the screen.



The approved time card has now disappeared from the **Approvals** screen.

- Before you approve the change request, tap it to review its details.
- On the **Change Request** screen, put the change request on hold so that you can edit its details.

Cancel Change Request Save

... Bathrooms remodelling Cost Total: 22 800,00
Status: On Hold Price Total: 29 240,08

Summary Estimation Markups

Project *
HOTELS

Change Date * > Hold

Description *
Bathrooms remodelling

Change Order Nbr.

Line Total 25 080,00	Markup Total 4 160,08
-------------------------	--------------------------

Details

Initiated by the designer - see the sketch attached >

Files (1)

6. Open the **Markups** tab.

Cancel Change Request Save

... Bathrooms remodelling Cost Total: 22 800,00
Status: On Hold Price Total: 29 240,08

Summary Estimation **Markups**

Q Search Cancel

Edit

Profit	2 006,40	>
Overhead	1 003,20	>
Default cumulative %	150,48	>
Additional charges	1 000,00	>

Files (1)

7. In the list of markups, select **Additional charges**, and on the **Markups** screen, which opens, change **Value** to 15,000.

Type	Value
Flat Fee	15 000,00

Revenue Attributes

Project Task: 02

Account Group: REVENUE

Cost Code: 02-000

Files

8. Return to the **Markups** tab of the **Change Request** screen.

Profit	2 006,40 >
Overhead	1 003,20 >
Default cumulative %	150,48 >
Additional charges	15 000,00 >

Q. Search Cancel

Files (1)

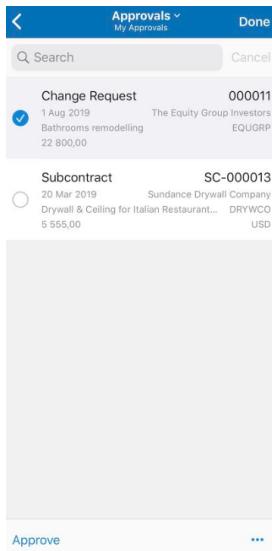
9. Open the **Summary** tab, remove the updated change request from hold and save it.

The screenshot shows a mobile application interface for managing change requests. At the top, there are buttons for 'Cancel', 'Change Request', and 'Save'. Below this, a summary section displays the following information:

- ... Bathrooms remodelling Cost Total: 22 800,00
- Status: Pending Approval Price Total: 43 240,08

Below the summary, there are tabs for 'Summary' (which is selected), 'Estimation', and 'Markups'. A 'Project *' field contains 'HOTEL3'. A 'Change Date *' field shows '1 Aug 2019' with a 'Hold' switch turned off. The 'Description *' field contains 'Bathrooms remodelling'. A 'Change Order Nbr.' field is empty. Below these fields, a table shows 'Line Total' as '25 080,00' and 'Markup Total' as '18 160,08'. A 'Details' section includes a note: 'Initiated by the designer - see the sketch attached' with a right-pointing arrow. At the bottom, a 'Files (1)' section is visible.

- 10.** On the **Approvals** screen, tap **Edit**, select the change request and tap **Approve** to approve it.



Notice that there is nothing left to approve.

Lesson 19: Expense Receipts with Corporate Cards

Learning Objectives

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

- Create a GL account, cash account, and payment method for a corporate credit card
- Create the corporate credit card in the system
- Create an expense receipt with the corporate credit card
- Process an expense claim for the expense receipt paid with the corporate credit card
- Reconcile a bank statement for the corporate credit card
- Create and release a bill for the bank

Story

Suppose that engineers of the SweetLife company worked on a construction site on January 29, 2020, and it turned out that there were not enough screws. Jon Waite went to a construction store and bought a box of screws for \$27 for which he paid with a company corporate card. He also bought a cup of coffee in a cafe near the store and paid \$6 for it by the same corporate credit card. Then Jon took a taxi to return back for which he paid \$10 by cash. Jon entered all expenses into the system and filed a claim for the reimbursement of expenses.

The next day Bill Owen went to a meeting with the customer to discuss a project. He took a taxi and paid \$25 by the corporate card.

At the end of the month, the New York Bank sent a monthly statement and an accountant of the company reconciled this statement and processed a bill for the bank in the system.

System Preparation

Sign in to the system as a project manager by using the *owen* login and *123* password.

Creating a Payment Method and Accounts for a Corporate Credit Card

Create a GL account as follows:

1. Open the Chart of Accounts (GL202500) form, and on the form toolbar, click **Add Row**.
2. In the new line, create an account with the following settings:
 - **Account:** 29000
 - **Account Class:** OTHCURLIAB
 - **Type:** *Liability*

- **Description:** Corporate Credit Card

- **Post Option:** *Detail*

3. Save the new account (see the following screenshot).

Chart of Accounts ☆

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	*Account	Account Class	Type	Active	Description	Control Account Module	Allow Manual Entry	Post Option	Cash Account	Account Group	Secured
>	0	<input type="checkbox"/>	23015	OTHCURLIAB	Liability	<input checked="" type="checkbox"/>	Accrued Expenses	IN	<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	24100	OTHCURLIAB	Liability	<input checked="" type="checkbox"/>	Tax Payable	TX	<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	26000	RELCURLIAB	Liability	<input checked="" type="checkbox"/>	Due to Related Entity		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	27001	OTHCURLIAB	Liability	<input checked="" type="checkbox"/>	Translation Gain / Loss		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	28000	OTHTLIABS	Liability	<input checked="" type="checkbox"/>	AP Retainage		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	29000	OTHCURLIAB	Liability	<input checked="" type="checkbox"/>	Corporate Credit Card		<input type="checkbox"/>	Detail	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	30000	CAPITAL	Liability	<input checked="" type="checkbox"/>	Opening Bal Equity		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	30100	CAPITAL	Liability	<input checked="" type="checkbox"/>	Capital Stock		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	32000	RETEARN	Liability	<input checked="" type="checkbox"/>	Retained Earnings		<input type="checkbox"/>	Summary	<input type="checkbox"/>		<input type="checkbox"/>

To create a payment method for corporate credit cards, do the following:

1. Open the Payment Methods (CA204000) form, and click **Add New Record**.
2. In the **Payment Method ID** box, type *CORPCC*.
3. In the **Description** box, type *Corporate card payment method*.
4. Make sure the **Use in AP** check box is selected.
5. Clear the following check boxes:

- **Use in AR**

Because this payment method will not be used for customer payments.

- **Require Remittance Information for Cash Account** Remittance information is not required by this payment method for the related cash accounts.

6. On the **Settings for Use in AP** tab, specify the following settings:

- **Additional Processing: Not Required**

Payment documents created with this payment method do not require additional processing such as printing checks.

- **Require Unique Payment Ref. (under Payment Settings): Cleared**

The unique payment reference number is not required for each payment document created with this payment method.

7. Save the payment method (see the following screenshot).

Payment Methods

* Payment Method ID: CORPCC

Active Use in AP
 Use in AR

Means of Payment: Cash/Check

* Description: Corporate card payment method.

ALLOWED CASH ACCOUNTS SETTINGS FOR USE IN AP

ADDITIONAL PROCESSING

- Print Checks
- Create Batch Payments
- Not Required

PAYMENT SETTINGS

- Require Unique Payment Ref.

Payment Method Details

<input type="button" value=""/>						
*	ID	Description	Required	Sort Order	Entry Mask	Validation Reg. Exp.
<input type="button" value=""/>						

Create a cash account as follows:

1. Open the Cash Accounts (CA202000) form, and click **Add New Record**.
2. In the Summary area, specify the following settings:
 - **Cash Account:** 29000
 - **Account:** 29000 - Corporate Credit Card
 - **Requires Reconciliation:** Selected
 - **Restrict Visibility with Branch:** Cleared
 - **Use for Corporate Cards:** Selected
 - **Reconciliation Numbering Sequence:** CARECON - CA Reconciliation
3. On the **Payment Methods** tab, click **Add Row**, and in the **Payment Method** column, select *CORPCC*.
4. On the **Entry Types** tab, click **Add Row**, and in the **Entry Type ID** column, select *BANKFEE*.
5. Save the created cash account.

Cash Accounts

← SAVE & CLOSE ⌂ + ⌂ K ⌂ < ⌂ > ⌂ ACTIONS ▾

* Cash Account:	29000 - Corporate Credit Card	<input checked="" type="checkbox"/> Active	<input type="checkbox"/> Clearing Account																													
* Account:	29000 - Corporate Credit Card	<input checked="" type="checkbox"/> Requires Reconciliation																														
* Branch:	HEADOFFICE - SweetLife He	<input type="checkbox"/> Restrict Visibility with Branch																														
Currency:	USD	<input type="checkbox"/> Match Bank Transactions to Batch Payments																														
External Ref. Number:		<input checked="" type="checkbox"/> Use for Corporate Cards																														
	Reconciliation Numbering Sequ...	CARECON - CA Reconciliatio...																														
	Bank ID:																															
	Statement Import Service:																															
Description:	Corporate Credit Card																															
PAYMENT METHODS CLEARING ACCOUNTS ENTRY TYPES SIGNATURE																																
<table border="1"> <thead> <tr> <th>* Payment Method</th> <th>Use in AP</th> <th>AP Default</th> <th>AP - Suggest Next Number</th> <th>AP Last Reference Number</th> <th>Batch Last Reference Number</th> <th>Use in AR</th> <th>AR Default</th> <th>AR Default For Refund</th> <th>AR - Suggest Next Number</th> <th>AR Last Reference Number</th> </tr> </thead> <tbody> <tr> <td>> CORPCC</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> </tbody> </table>											* Payment Method	Use in AP	AP Default	AP - Suggest Next Number	AP Last Reference Number	Batch Last Reference Number	Use in AR	AR Default	AR Default For Refund	AR - Suggest Next Number	AR Last Reference Number	> CORPCC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
* Payment Method	Use in AP	AP Default	AP - Suggest Next Number	AP Last Reference Number	Batch Last Reference Number	Use in AR	AR Default	AR Default For Refund	AR - Suggest Next Number	AR Last Reference Number																						
> CORPCC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																							

Creating a Corporate Credit Card

To create a corporate credit card, do the following:

1. Open the Corporate Cards (CA202500) form.
2. In the Name box, enter *USD Corporate Card*.
3. In the **Card Number** box, enter the following card number: *7890*.
4. In the **Cash Account box**, select *29000 - Corporate Credit Card*.
5. On the table toolbar, click **Add Row**, and select *EP00000015* in the **Employee ID** column.
6. Click **Add Row** again, and add *EP00000003 - Jon Waite*.
7. On the form toolbar, click **Save**.

Corporate Cards

Employee ID	Employee Name
EP00000003	Jon Waite
EP00000015	Bill Owen

Creating the First Expense Receipt

Do the following:

1. 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 1/29/2020. If a different date is displayed, click the Business Date menu button and select 1/29/2020.
2. Open the Expense Receipts (EP301010) form, and click **Add New Record**. The system opens the Expense Receipt (EP301020) form.
3. In the **Expense Item** box, select *SCREW*.
4. In the **Claimed by** box, select *EP00000003 - Jon Waite*.
5. In the **Branch** box, select *HEADOFFICE*.
6. On the **Receipt Details** tab, specify the following:
 - **Description:** *Box of screws*
 - **Unit Cost:** 27.00
 - **Paid With:** *Corporate Card, Company Expense*
 - **Corporate Card:** *000001 - USD Corporate Card*
7. Save the receipt.

Processing an Expense Claim for the Expense Receipt

1. While you are still on the Expense Receipts (EP303010) form, click **Actions > Claim**. The Expense Claim (EP301000) form opens.
 2. On the **Expense Claim Details** tab, notice the line for the box of screws.
 3. On the table toolbar, click **Add Row**, and specify the following settings in the new row:
 - **Expense Item:** MEAL
 - **Description:** Coffee
 - **Unit Cost:** 6
 - **Paid With:** Corporate Card, Personal Expense
 - **Corporate Card:** 000001 - USD Corporate Card
 4. Click **Add Row**, and specify the following settings in the new row:
 - **Expense Item:** TAXI

- **Description:** *Taxi*
 - **Unit Cost:** 10
 - **Paid With:** *Personal Account*

5. Save the expense claim.

- 6.** On the form toolbar, click **Actions > Submit**.
 - 7.** On the form toolbar, click **Actions > Release**.
 - 8.** On the **Financial Details** tab, review the list of documents generated for the claim.

Creating the Second Expense Receipt

Do the following:

1. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, set the business date to 1/30/2020.
 2. Open the Expense Receipts (EP301010) form, and click **Add New Record**. The system opens the Expense Receipt (EP301020) form.
 3. In the **Expense Item** box, select *TAXI*.
 4. In the **Claimed by** box, make sure *EP00000015 - Bill Owen* is selected.
 5. In the **Branch** box, make sure *HEADOFFICE* is selected.
 6. On the **Receipt Details** tab, specify the following:
 - **Description:** *Taxi to the customer meeting*
 - **Unit Cost:** 25.00
 - **Paid With:** *Corporate Card, Company Expense*
 - **Corporate Card:** *000001 - USD Corporate Card*
 7. Save the receipt.

Expense Receipt

SAVE & CLOSE + New - Delete K Edit C Cancel ACTIONS More

Receipt Number:	000004 	* Claimed by:	EP0000015 - Bill Owen 	Claim Amount:	25.00
* Date:	1/30/2020 	* Branch:	HEADOFFICE - SweetLife H 	Tax Total:	0.00
* Expense Item:	TAXI - Taxi Service 	Status:	Open		

RECEIPT DETAILS **TAX DETAILS**

EXPENSE DETAILS

* Description: Taxi to the customer meeting

Quantity: 1.00 * UOM: EA

Unit Cost: 25.0000 Employee Part: 0.00

Amount: 25.00

Currency: USD 1.00 VIEW BASE

Ref. Nbr.:

* Project/Contract: X - Non-Project Code.

Sub Job:

Cost Code:

Expense Claim:

Expense Claim Status:

Paid With: Corporate Card, Company Expense

Corporate Card: 000001 - USD Corporate Card

FINANCIAL DETAILS

Billable

Customer:

* Expense Account: 54300 - Project Other Expense

Sales Account:

IMAGE

Select an image to upload. Browse Upload



Drag and drop the image here to upload it.

Reconciling Bank Statements

1. Open the Import Bank Transactions (CA306500) form, and click **Add New Record**.
2. In the **Cash Account** box, select the **29000 - Corporate Credit Card** account.
3. In the **Statement Date** box, select **1/31/2020**.
4. In the **Start Balance Date** box, select **1/1/2020**.
5. In the **End Balance Date** box, select **1/31/2020**.
6. On the table toolbar, click **Load Records from File** and select the **January_Bank_Statement.csv** file provided with this course. Upload this file.
7. In the **Ending Balance** box, specify **-58.00**.
8. Click **Save** on the form toolbar.

Import Bank Transactions

Ext. Ref. Nbr.	Tran. Date	Tran. Desc	Receipt	Disbursement	Card Number
000001	1/30/2020	taxi service	0.00	25.00	****-7890
	1/29/2020	coffee	0.00	6.00	****-7890
	1/29/2020	spare parts	0.00	27.00	****-7890

9. Open the Process Bank Transactions (CA306000) form.
10. In the **Cash Account** box, select the **29000 - Corporate Credit Card** account.
11. On the form toolbar, click **Auto-Match**. Note that the system found documents with transactions that match the bank statement transactions.

Process Bank Transactions

Ext. Ref. Nbr.	Tran. Date	Receipt	Disbursement	Card Number	Tran. Desc
000001	1/30/2020	0.00	25.00	****-7890	taxi service
000002	1/29/2020	0.00	6.00	****-7890	coffee
000003	1/29/2020	0.00	27.00	****-7890	spare parts

Matched	Match Relevance	Receipt Number	Description	Doc. Date	Amount in Claim Curr.	Claim Current	Amount Difference	Card Number	Emp
0.300000	000004	Taxi to the customer meeting	1/30/2020	25.00	USD	0.00	7890	EP	

12. Click **Process**.
13. On the Import Bank Transactions form, open the imported bank statement and note that the transactions have been processed and matched.

- 14.**Open the Reconciliation Statements (CA302000) form, click **Add New Record**.
 - 15.**In the **Cash Account** box, select the *29000 - Corporate Credit Card* account.
 - 16.**In the table, for both rows, select the **Reconciled** check box.
 - 17.**In the Summary area, in the **Statement Balance** box, specify -33.
 - 18.**Clear the **Hold** check box.
 - 19.**On the form toolbar, click **Release**.

Reconciliation Statements ☆

◀ SAVE & CLOSE ⌂ ⌃ + ⌄ ⌅ ⌆ ⌇ RELEASE VOID ⌈ 00:00:00

* Cash Account:	29000 - Corporate Credit Card	Beginning Balance:	0.00	Document Count:	
* Ref. Number:	000001	Reconciled Receipts:	0.00	0	
Status:	Closed	Reconciled Disbld.:	33.00	2	
Last Reconciliation Date:		Reconciled Balance:	-33.00		
Reconciliation Date:	1/30/2020	Statement Balance:	-33.00		
Load Documents Up To:		Difference:	0.00		

🕒 🖊 TOGGLE RECONCILED TOGGLE CLEARED RECONCILE PROCESSED CREATE ADJUSTMENT | [] ✎

Reconcile	Cleared	Clear Date	Receipt	Disbursement	Document Ref.	Module	Tran. Type	* Orig. Doc. Number	Status	* Doc. Date	Business Account	
>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1/29/2020	0.00	27.00	AP	Quick Check	000025	Posted	1/29/2020	EP00000003	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1/29/2020	0.00	6.00	000063	AP	GL Entry	AP000083	Posted	1/29/2020	EP00000003

Paying the Outstanding Balance to the Bank

Create a vendor that represents a bank as follows:

1. Open the Vendors (AP303000) form, and click **Add New Record**.
 2. In the **Vendor** box, type *NYBANK*.
 3. In the **Vendor Name** box, type *New York Bank*.
 4. On the **General Info** tab, in the **Vendor Class** box, select *Default*.
 5. On the **GL Accounts** tab, in the **Expense Account** box, select *29000 - Corporate Credit Card*.
 6. Save the vendor.

Vendors

SAVE & CLOSE ACTIONS INQUIRIES REPORTS

* Vendor ID:	NYBANK	* Status:	Active	Balance:	0.00
* Vendor Name:	New York Bank			Prepayment Balance:	0.00
				Retained Balance:	0.00
GENERAL INFO PAYMENT SETTINGS PURCHASE SETTINGS CONTACTS ATTRIBUTES ACTIVITIES GL ACCOUNTS					
* AP Account:	20000 - Accounts Payable				
Expense Account:	29000 - Corporate Credit Card				
Discount Account:	49000 - Discount Taken				
* Cash Discount Account:	52600 - Cash Discount				
Prepayment Account:	13200 - Deposit to Vendor				
PO Accrual Account:					
Retainage Payable Acc...					

Create an AP bill for a bank:

1. Open the Bills and Adjustments (AP301000) form, and click **Add New Record**.
2. In the **Date** box, select **1/31/2020**.
3. In the **Vendor** box, select **NYBANK**.
4. In the **Description** box, type **Bank account settlement**.
5. On the **Document Details** tab, add a row with the following settings:
 - **Branch:** *HEADOFFICE*
 - **Ext. Cost:** *33.00*
 - **Account:** *29000* (selected by default based on vendor settings)
6. In the Summary area, clear the **Hold** check box.
7. On the form toolbar, click **Release**.

Bills and Adjustments

← SAVE & CLOSE RELEASE ACTIONS INQUIRIES REPORTS 00.00.03

Type: Bill	Vendor: NYBANK - New York Bank	Detail Total: 33.00																										
Reference Nbr: 000064	Terms: 30D - 30 Days	Discount Total: 0.00																										
Status: Open <input checked="" type="checkbox"/> Hold	* Due Date: 3/1/2020	VAT Taxable Total: 0.00																										
Date: 1/31/2020	* Cash Discount: 3/1/2020 <input type="checkbox"/> Pay by Line <input type="checkbox"/> Joint Payees	VAT Exempt Total: 0.00																										
Post Period: 01-2020		Tax Total: 0.00																										
Vendor Ref:		With Tax: 0.00																										
Description: Bank account settlement		Balance: 33.00																										
		Amount: 33.00																										
		Cash Discount: 0.00																										
DOCUMENT DETAILS FINANCIAL DETAILS TAX DETAILS APPROVAL DETAILS APPLICATIONS COMPLIANCE																												
<table border="1"> <thead> <tr> <th> <input type="checkbox"/> * Branch</th> <th>Account Group Item</th> <th>Transaction Descr.</th> <th>Quantity</th> <th>UOM</th> <th>Unit Cost</th> <th>Ext. Cost</th> <th>Discount Amount</th> <th>Amount</th> <th>Balance</th> <th>* Account</th> <th>Description</th> <th>* Project</th> </tr> </thead> <tbody> <tr> <td> <input type="checkbox"/> HEADOFFICE</td> <td></td> <td></td> <td>0.00</td> <td></td> <td>0.0000</td> <td>33.00</td> <td>0.00</td> <td>33.00</td> <td>0.00</td> <td>29000</td> <td>Corporate Credit Card</td> <td>X</td> </tr> </tbody> </table>			<input type="checkbox"/> * Branch	Account Group Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	* Account	Description	* Project	<input type="checkbox"/> HEADOFFICE			0.00		0.0000	33.00	0.00	33.00	0.00	29000	Corporate Credit Card	X
<input type="checkbox"/> * Branch	Account Group Item	Transaction Descr.	Quantity	UOM	Unit Cost	Ext. Cost	Discount Amount	Amount	Balance	* Account	Description	* Project																
<input type="checkbox"/> HEADOFFICE			0.00		0.0000	33.00	0.00	33.00	0.00	29000	Corporate Credit Card	X																

You can now pay the bill and process the related documents in the system.

Lesson 20: Substantiated Billing, AIA, WIP, Bonding Reports

Learning Objectives

In this lesson, you will do the following:

- Learn how to print, read, and send the following project progress reports in Acumatica ERP 2019R2 Construction Edition:
 - Substantiated Billing report
 - Standard Pro Forma Invoice printed form
 - AIA report
 - WIP report
 - Bonding report
- Review the project lifecycle and performance with the help of those reports
- Study the approval and mailing notifications for the pro forma invoices

Story

We are a general contractor and we have a list of construction projects in progress.

First, we are making a new building for an Italian restaurant. We have already incurred some costs purchasing materials for the project and hiring subcontractors. Notice the Expenses total on the summary of *ITALIAN* project on the Projects (PM301000) form. We have already billed the customer once, which can be seen from the actual Income total on the summary of the project and the invoices on the **Invoices** tab of the Projects form. It is time to bill our customer, and we are using the *Time and Material* billing rule for this project. **Next Billing Date** is set to 04/01/2019 and **Billing Period** is set to *Month*, which means that we can now generate an invoice for *The Italian Company* customer invoicing them for the costs incurred in the previous month (March 2019). When we prepare draft Pro Forma Invoices, very often we also need to provide other documentation with the invoice, such as substantiated billing reports that back up the actual costs associated with the Invoice Total.

Projects

The screenshot shows the Project Management software interface for the 'Italian Restaurant Project'. The top navigation bar includes buttons for 'SAVE & CLOSE', 'RUN PROJECT BILLING', 'CREATE CHANGE REQUEST', and 'CREATE CH'. The project details are as follows:

- Project ID:** ITALIAN
- Status:** Active
- Assets:** 0.00
- Customer:** ITALIAN01 - The Italian Company
- Template:** CONTM - Construction T&M Project
- Description:** Italian Restaurant Project
- Income:** 126,202.50
- Expenses:** 202,717.00

The interface includes tabs for SUMMARY, TASKS, REVENUE BUDGET, COST BUDGET, BALANCES, COMMITMENTS, INVOICES, CHANGE ORDERS, and CHANGE REQUESTS.

PROJECT PROPERTIES

- Revenue Budget Level: Task and Cost Code
- Cost Budget Level: Task and Cost Code
- * Start Date: 2/1/2019
- End Date: (dropdown menu)
- Project Manager: EP00000015 - Bill Owen
- Site Address: 2510 Market Street, SF
- Last Revenue Change ...
- Currency Rate Type: (dropdown menu)
- Allow the addition of Account Groups not associated with the Project Cost Budget when creating ...
- Change Order Workflow
- Restrict Employees
- Restrict Equipment
- Track Production Data
- Certified Job

BILL-TO

- Company Name: The Italian
- Attention:
- Phone 1: 415-965-55
- Email: Dustin.Lind

BILL-TO ADDRESS

- Address Line 1: 2510 Market
- Address Line 2:
- City: San Francisc
- Country: US - United
- State: CA - CALIF
- Postal Code: 87556

VISIBILITY SETTINGS

- GL
- IN
- CO
- Time Entr

QUOTE

Then, we are also in the middle of the progress billing of the *HOTEL* project. We are to create a new hotel building and we are running this as a fixed price project, billing the customer by the percent of project completion. For the progress billing of projects in the construction industry, you are very often required to file certain documents—for instance, AIA forms.

As a project manager you want to be sure of the performance and profitability of your projects. WIP and Bonding reports can be used to increase visibility into the project progress during its life-cycle.

System Preparation

Sign in to the system by using the *owen* login and the *123* password.

Note: Depending on the sequence in which you take the course lessons, the values in the screenshots in this lesson may differ from the values in the system.

Working with the Substantiated Billing Report

In the construction industry, when contractors bill their customers, the customers may want to see proof of the costs. In this case, contractors need to provide supporting documentation along with the customer statement or invoice.

Acumatica ERP Construction Edition allows emailing of a substantiated billing report for a specific billing period to retrieve costs and scanned or uploaded images associated with the costs. The substantiated billing report provides a list of costs from payable invoices, labor, and other project expenses, in addition to hyperlinks to the attached documents.

For example, if a payable invoice has a scanned image of the vendor invoice attached, a hyperlink to that image is included in the substantiated billing report. A user can see the image by selecting the hyperlink and entering guest credentials into the Acumatica ERP sign-in page. As a result, the user does not need to download, compress, and send large file attachments. A Substantiated Billing - Consolidated Report (CU000119) is also available, allowing the report to be sent with PDF files embedded. This does not require guest login credentials.

The report can also be run for the entire job for close-out purposes.

The report is grouped by cost code with all the related transactions for the period specified.

The functionality supports the following types of project billing:

- Progress billing
- Time and Material billing
- Cost Plus billing

Do the following:

1. Open the Projects (PM301000) form, and in the **Project ID** box, select **ITALIAN**.
2. Click **Run Project Billing** on the form toolbar to generate another pro forma invoice for the project.

On the **Time and Material** tab of the Pro Forma Invoices (PM307000) form that opens, see that March billing items have been collected to be invoiced to the customer.

The screenshot shows the Acumatica Pro Forma Invoices (PM307000) form with the TIME AND MATERIAL tab selected. The top section displays summary information for a project named 'ITALIAN - Italian Restaurant Project'. Below this, the main area shows a grid of billed transactions. The grid includes columns for Branch, Billing Item, Inventory ID, Cost Code, Description, Employee, Vendor, Date, Billed Quantity, Billed Amount, Quantity to Invoice, UOM, and Unit Price. A red box highlights the 'Date' column header, indicating it is the primary sorting key for the data.

Branch	Billing Item	Inventory ID	Cost Code	Description	Employee	Vendor	Date	Billed Quantity	Billed Amount	Quantity to Invoice	UOM	Unit Price
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/3/2019	3.00	375.00	3.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/4/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/5/2019	10.00	1,250.00	10.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/6/2019	12.00	1,500.00	12.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/7/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/8/2019	7.00	875.00	7.00	HOUR	125.0000
HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/9/2019	2.00	250.00	2.00	HOUR	125.0000
HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/11/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/12/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/13/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/14/2019	8.00	1,000.00	8.00	HOUR	125.0000
HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/15/2019	10.00	1,250.00	10.00	HOUR	125.0000
HEADOFFICE	03	SUBCON	03-300	Concrete-CIP Slab		DRYWCO	3/20/2019	110.00	6,943.75	110.00	HOUR	63.1250

- Prior to sending this invoice to the customer, you might need to verify which costs are subject to invoicing for the billing period.

You can use this report as a verification of the invoice generated for the project.

On the Substantiated Billing (CU000071) form, specify the following settings:

- Project:** ITALIAN
- From Date:** 03/01/2019
- To Date:** 03/31/2019

Substantiated Billing ☆

The screenshot shows the 'Substantiated Billing' form. At the top, there's a toolbar with icons for edit, refresh, run report, save template, and remove template. Below the toolbar is a 'Template' section with a dropdown menu and checkboxes for 'Default' and 'Shared'. The main area has three tabs: 'REPORT PARAMETERS' (which is selected), 'ADDITIONAL SORT AND FILTERS', and 'PRINT'. Under 'REPORT PARAMETERS', there are three input fields: 'Project' (set to 'ITALIAN - Italian Restaurant Project'), 'From Date' (set to '3/1/2019'), and 'To Date' (set to '3/31/2019').

The specified dates define the billing period range from which costs should be listed. The generated Substantiated Billing report will be a backup of the actual costs associated with the **Invoice Total**.

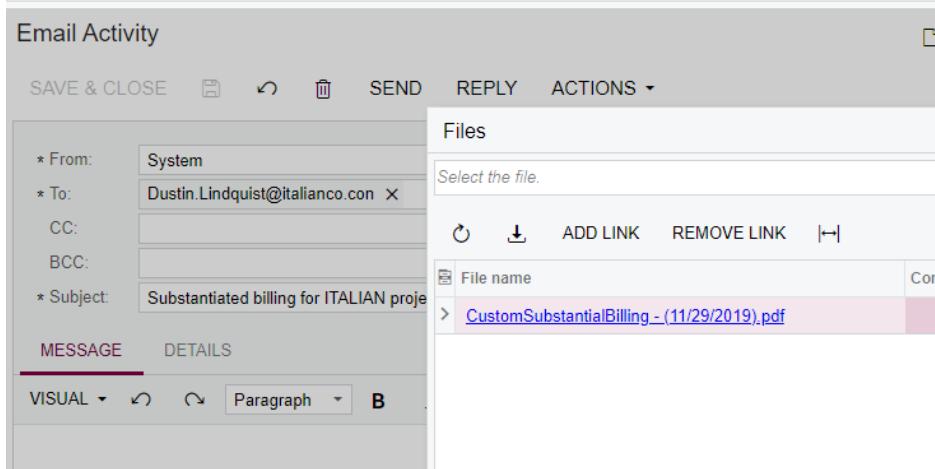
- Click **Run Report** on the form toolbar.

The report includes the cost transactions subject to billing in March 2019 for the *ITALIAN* project.

Company: Company User: Bill Owen Cost Transactions for 3/1/2019 to 3/31/2019	Page: 1 of 2 Date: 3/3/2020 8:23 AM							
Billto: The Italian Company 2510 Market Street San Francisco, CA 87556	Project: ITALIAN Italian Restaurant Project New York,							
CostCode: 03-100 Concrete- Forming								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/20/2019 Concrete- Forming	3/20/2019 000049 DRYWCO							
							Subtotal for Account Group: AP	875.00
							Subtotal for CostCode: 03100	875.00
								875.00
CostCode: 03-200 Concrete- Reinforcing								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/20/2019 Concrete- Reinforcing	3/20/2019 000049 DRYWCO						Subtotal for Account Group: AP	2,880.00
							Subtotal for CostCode: 03200	2,880.00
								2,880.00
CostCode: 03-300 Concrete- CIP Slabs								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/20/2019 Concrete- CIP Slab	3/20/2019 000049 DRYWCO						Subtotal for Account Group: AP	1,470.00
							Subtotal for CostCode: 03300	1,470.00
								1,470.00
CostCode: 03-350 Concrete- Finishes								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/20/2019 Concrete- Finishes	3/20/2019 000049 DRYWCO						Subtotal for Account Group: AP	330.00
							Subtotal for CostCode: 03350	330.00
								330.00
CostCode: 04-220 Masonry- Block								
Company: Company User: Bill Owen Cost Transactions for 3/1/2019 to 3/31/2019	Page: 2 of 2 Date: 3/31/2020 1:30 PM							
CostCode: 04-220 Masonry- Block								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/4/2019 Masonry block	3/4/2019 000048 SPEECO						Subtotal for Account Group: AP	35,000.00
							Subtotal for CostCode: 04220	35,000.00
								35,000.00
CostCode: 04-700 Masonry- Composite Walls								
Account Group: AP								
G/L Date Description	Date Reference Vendor UOM Earning Type Unit Rate Qty/Hours Amount							
3/4/2019 Composite wall	3/4/2019 000048 SPEECO						Subtotal for Account Group: AP	10,000.00
							Subtotal for CostCode: 04700	10,000.00
								10,000.00
Project Total:								
	50,555.00							

5. You can now send the substantiated billing report to the customer. Click **Send**.
6. On the Email Activity form that opens, specify the following settings:
 - **To:** Dustin.Lindquist@italianco.com
 - **Subject:** Substantiated billing for ITALIAN project

Email Activity



Notice there is a file with the report attached to the email.

7. Save the email.
8. Click on the file link to view the PDF file with the generated report.

Cost Transactions for 3/1/2019 to 3/31/2019								Page: 1 of 2	Date: 3/3/2020 8:30 AM	
Billto: The Italian Company 2510 Market Street San Francisco, CA 87566				Project: ITALIAN Italian Restaurant Project New York,						
CostCode: 03-100 Concrete- Forming										
Account Group:	G/L Date	Description	Date	Reference	Vendor	UOM	Earning Type	Unit Rate	Qty/Hours	Amount
AP	3/20/2019	Concrete- Forming	3/20/2019	000049	DRYWCO					875.00
										875.00
										875.00
CostCode: 03-200 Concrete- Reinforcing										
Account Group:	G/L Date	Description	Date	Reference	Vendor	UOM	Earning Type	Unit Rate	Qty/Hours	Amount
AP	3/20/2019	Concrete- Reinforcing	3/20/2019	000049	DRYWCO					2,880.00
										2,880.00
										2,880.00
CostCode: 03-300 Concrete- CIP Slabs										
Account Group:	G/L Date	Description	Date	Reference	Vendor	UOM	Earning Type	Unit Rate	Qty/Hours	Amount
AP	3/20/2019	Concrete- CIP Slab	3/20/2019	000049	DRYWCO					1,470.00
										1,470.00
										1,470.00
CostCode: 03-350 Concrete- Finishes										
Account Group:	G/L Date	Description	Date	Reference	Vendor	UOM	Earning Type	Unit Rate	Qty/Hours	Amount
AP	3/20/2019	Concrete- Finishes	3/20/2019	000049	DRYWCO					330.00
										330.00
										330.00
CostCode: 04-220 Masonry- Block										

9. Close the file management window and click **Send**.
10. On the All Emails (CO409070) form, make sure that your email has been successfully sent.

All Emails					
		From	Created At	Mail Status	To
>	Substantiated billing for ITALIAN project	"Bill Owen" <system@sweetlife.con>	11/29/2019 8:26 AM	Pending Processing	Dustin.Lindquist@italianco.com

11. Together with the substantiated billing report (proof of the costs), you will send the Pro Forma invoice to the customer. To do this, you can use the standard built-in Pro Forma invoice form.

- a.** On the Projects (PM301000) form, open the *ITALIAN* project.
- b.** On the **Invoices** tab, select the second Pro Forma, which should be on hold and have **Invoice Total = 74,693.75**.

Projects

		SAVE & CLOSE	RELEASE RETAINAGE	+	-	RUN PROJECT BILLING	CREATE CHANGE REQUEST	CREATE CHANGE
* Project ID:	ITALIAN	* Status:	Active	Assets:	0.00			
Customer:	ITALIAN01 - The Italian Company	* Hold:	<input checked="" type="checkbox"/>	Liabilities:	0.00			
Template:	CONTM - Construction T&M Project			Income:	126,202.50			
* Description:	Italian Restaurant Project			Expenses:	202,717.00			
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS
RELEASE RETAINAGE								
Pro Forma Date	Pro Forma Reference Nbr.	Description	Status	Invoice Total	Currency	AR Doc. Type	AR Reference Nb	
3/1/2019	000006	Invoice for ITALIAN	Closed	126,202.50	USD	Invoice	000079	
4/1/2019	000008	Invoice for ITALIAN	On Hold	74,693.75	USD			

The Pro Forma invoice is opened on the Pro Forma Invoices (PM307000) form .

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr:	000008	Project:	ITALIAN - Italian Restaurant Project	Progress Billing Total:	0.00
Status:	On Hold	Customer:	ITALIAN01 - The Italian Company	Time and Material Total:	74,693.75
				Tax Total:	0.00
* Invoice Date:	4/1/2019			Invoice Total:	74,693.75
* Post Period:	04-2019			Retainage Total:	0.00
Description:	Invoice for ITALIAN			Amount Due:	74,693.75

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

#	□	□	* Status	* Branch	Billing Item	Inventory ID	Cost Code	Description	Employee	Vendor	* Date	Billed Quantity	Billed Amount	Quantity to Invoice	UOM	Unit Price	Amount to Invoice
>	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/3/2019	3.00	375.00	3.00	HOUR	125.0000	375.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/4/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/5/2019	10.00	1,250.00	10.00	HOUR	125.0000	1,250.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/6/2019	12.00	1,500.00	12.00	HOUR	125.0000	1,500.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/7/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/8/2019	7.00	875.00	7.00	HOUR	125.0000	875.00
0	0	0	Bill	HEADOFFICE	01	SITEREVIEW	01-311	Site review work	EP00000015		3/9/2019	2.00	250.00	2.00	HOUR	125.0000	250.00
0	0	0	Bill	HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/11/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/12/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/13/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/14/2019	8.00	1,000.00	8.00	HOUR	125.0000	1,000.00
0	0	0	Bill	HEADOFFICE	01	CONSULTPM	01-311	PM activities	EP00000015		3/15/2019	10.00	1,250.00	10.00	HOUR	125.0000	1,250.00
0	0	0	Bill	HEADOFFICE	03	SUBCON	03-300	Concrete- CIP Slab	DRYWCO		3/20/2019	110.00	6,943.75	110.00	EA	63,1250	6,943.75
0	0	0	Bill	HEADOFFICE	04	MATERIAL	04-220	Masonry block	SPEEQQ		3/4/2019	0.00	43,750.00	0.00	EA	0.0000	43,750.00
0	0	0	Bill	HEADOFFICE	04	MATERIAL	04-700	Composite wall	SPEEQQ		3/4/2019	0.00	12,500.00	0.00	EA	0.0000	12,500.00

c. Click **Reports -> Print Pro Forma Invoice** on the form toolbar.

 SweetLife SweetLife Head Office and Wholesale Center 69 Main St, Flushing New York, NY, 11367 Phone: +1 917 341 8776	PRO FORMA INVOICE Pro Forma Ref. Nbr.: 000011 Date: 01-Apr-2019 Due Date: 01-May-2019 Customer ID: ITALIAN01 Currency: USD Project ID: ITALIAN Terms: 30 Days
---	---

BILL TO			SHIP TO					
The Italian Company 2510 Market Street San Francisco CA 87556 United States of America			The Italian Company 2510 Market Street San Francisco CA 87556 United States of America					
TIME AND MATERIAL								
#	PROJECT TASK	ITEM	DESCRIPTION	QTY.	UOM	UNIT PRICE	AMOUNT	RETAINAGE (%)
1	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	3.00	HOUR	125.0000	375.00	5.00
2	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	8.00	HOUR	125.0000	1,000.00	5.00
3	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	10.00	HOUR	125.0000	1,250.00	5.00
4	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	12.00	HOUR	125.0000	1,500.00	5.00
5	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	8.00	HOUR	125.0000	1,000.00	5.00
6	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	7.00	HOUR	125.0000	875.00	5.00
7	GENERAL REQUIREMENTS	SITEREVIEW	Site review work	2.00	HOUR	125.0000	250.00	5.00
8	GENERAL REQUIREMENTS	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	5.00
9	GENERAL REQUIREMENTS	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	5.00
10	GENERAL REQUIREMENTS	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	5.00
11	GENERAL REQUIREMENTS	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	5.00
12	GENERAL REQUIREMENTS	CONSULTPM	PM activities	10.00	HOUR	125.0000	1,250.00	5.00
13	CONCRETE MASONRY	SUBCON MATERIAL	Concrete- CIP Slab Masonry block	110.00	HOUR	63.1250	6,943.75	100.00
14				0.00	EA	0.0000	43,750.00	5.00
								6,943.75
								2,187.50

The standard printed form is ready to be sent to the customer. Notice how only the time and material section is displayed on the report since there were no progress billing items in your invoice.

If you want to customize the printed form, you can easily do so by means of the Report Designer and then simply change the default report used for Pro Forma Invoices in any of the following ways:

- Specify the new printed form on the Mailing Settings tab of the Project Preferences (PM101000) form

Projects Preferences ☆

GENERAL SETTINGS **MAILING SETTINGS**

Default Sources

Mailing ID	Default Email Account	Report ID	Notification Template	Format	Active
PMQUOTE		PM.60.45.00	PMQuoteNotification	PDF	<input checked="" type="checkbox"/>
INVOICE		PM.64.10.00		PDF	<input checked="" type="checkbox"/>
CHANGE ORDER		PM.64.30.00	Change Order Notification	PDF	<input checked="" type="checkbox"/>
CHANGE REQUEST		PM.64.35.00		PDF	<input checked="" type="checkbox"/>
PROFORMA		PM.64.20.00	Pro Forma Invoice Notification	PDF	<input checked="" type="checkbox"/>

- For each project, in particular, utilize the Mailing Settings tab of the project on the Projects (PM301000) form

Projects

REPORTS ▾

Project ID:	ITALIAN	Status:	Active	Assets:	0.00
Customer:	ITALIAN01 - The Italian Company	Hold		Liabilities:	0.00
Template:	CONTM - Construction T&M Project			Income:	200,896.25
Description:	Italian Restaurant Project			Expenses:	202,717.00

MAILINGS

Mailing ID	Branch	Email Account	Report	Notification Template	Format	Active
PMQUOTE			PM.60.45.00	PMQuoteNotification	PDF	<input checked="" type="checkbox"/>
INVOICE			PM.64.10.00		PDF	<input checked="" type="checkbox"/>
CHANGE ORDER			PM.64.30.00	Change Order Notification	PDF	<input checked="" type="checkbox"/>
CHANGE REQUEST			PM.64.35.00		PDF	<input checked="" type="checkbox"/>
PROFORMA			PM.64.20.00	Pro Forma Invoice Notification	PDF	<input checked="" type="checkbox"/>

With the project mailing settings, you can specify not only the default printed forms but also the default mailing notifications for the following project-related documents: project quotes, project AR invoices, change orders, change requests, and Pro Forma invoices.

Note that if no notification template is specified for the *INVOICE* mailing ID, the system will take the AR invoice notification template from the settings on the Reporting Settings tab of the Accounts Receivable Preferences (AR101000) form.

- Go back to the Pro Forma Invoices form and click **Actions > Email Pro Forma Invoice** on the form toolbar.

A new email with the default values corresponding to the Pro Forma invoice notification is generated and saved as a new invoice activity.

The screenshot shows a software interface with a modal window. The modal has a title bar with 'Actions' and 'Reports'. Below the title bar, there are three buttons: 'Approve', 'Reject', and 'Email Pro Forma Invoice', with the last one being highlighted by a red box. The main area of the modal displays financial totals: 'Billing Total: 0.00', 'Material Total: 74,693.75', 'Invoice Total: 74,693.75'. At the top right of the main window, there are buttons for 'NOTES' and 'ACTIVITIES (1)', with 'ACTIVITIES (1)' also being highlighted by a red box.

- e. Click **Activities** to see the newly sent email.

The screenshot shows the 'Tasks & Activities' screen. At the top, there are buttons for 'ADD TASK', 'ADD EVENT', and 'ADD ACTIVITY'. Below these, a list item is shown for '30 Nov' with the subject 'Draft invoice # 000008 for project Italian Restaurant Project is ready for viewing'. The main area is titled 'Email Activity' and contains fields for 'From', 'To', 'CC', 'BCC', and 'Subject'. To the right of these fields is a 'Pro Forma Invoice' summary table. Below the activity list is a rich text editor with 'MESSAGE' and 'DETAILS' tabs, and a preview of the email content.

Notice that the email has the pro forma invoice attached.

The screenshot shows the 'Files' screen. It has a search bar with 'Select the file.' and buttons for 'Browse' and 'Upload'. Below this is a toolbar with 'ADD LINK' and 'REMOVE LINK'. A table lists files, with one row highlighted in pink containing the file name 'Proforma Invoice 000008.pdf', the date '11/30/2019', and an 'Edit' link.

File name	Comment	Last Date	
Proforma Invoice 000008.pdf		11/30/2019	Edit

12. Now that you have provided the costs to the customer and got their approval for the pro forma invoice, you release the pro forma and the related AR invoice by doing as follows:

- a. On the Pro Forma Invoices (PM307000) form, clear the Hold check box. The document has acquired the *Pending Approval* status. The pro forma invoice approval map is configured in such a way that it requires the approval of the project manager when the invoice total exceeds *10,000.00*.

The screenshot shows the 'Pro Forma Invoices' form with the 'APPROVAL DETAILS' tab selected. The 'Hold' checkbox is checked. The 'Status' field shows 'Pending Approv'. The 'Customer' field is 'ITALIAN01 - The Italian Company'. The 'Invoice Date' is '4/1/2019' and the 'Post Period' is '04-2019'. The 'Description' is 'Invoice for ITALIAN'. The financial summary table includes:

Progress Billing Total:	0.00
Time and Material Total:	74,693.75
Tax Total:	0.00
Invoice Total:	74,693.75
Retainage Total:	0.00
Amount Due:	74,693.75

Below the table, the 'APPROVAL DETAILS' section shows a list of assignees:

Assignee ID	Assigned To	Workgroup	Approved By (ID)	Approved By	Approval Date	Status	Reason
EP00000015	Bill Owen					Pending	

On the All Emails (CO409070) form, a new email has been generated with the pending approval notification. Open that email and navigate to the related Pro Forma Invoice via the link in the email body.

The screenshot shows the 'All Emails' form with the 'OUTGOING EMAILS' tab selected. A single email is listed:

Summary	From	Created At	Mail Status	To
Draft invoice # 000010 for project ITALIAN "Italian Restaurant Project" is...	"System" <system@sweetlife.com>	11/30/2019 6:36 AM	Pending Processing	owen@sweetlife.com

Email Activity

The screenshot shows the 'Email Activity' form with the 'MESSAGE' tab selected. The email details are:

From: System
To: owen@sweetlife.com
CC:
BCC:
Subject: Draft invoice # 000010 for project ITALIAN "Italian Restaurant Project" is pending your approval

The message content area contains:

Dear

This is an automatic email to notify you that you have a new Pro Forma Invoice available for approval on your account. You will find a copy of Invoice # 000010 for project ITALIAN "Italian Restaurant Project" attached to this email.

[VIEW DOCUMENT](#)

The approval map for the Pro Forma Invoices is specified on the Project Preferences (PM101000) form. You can also set up an approval notification template there so that each time a Pro Forma invoice gets the *Pending Approval* status, the approvers of the document will receive an automatic email with the invoice attached.

Projects Preferences ☆

GENERAL SETTINGS

* Transaction Numbering Sequence:	PMTRAN - PM Transaction Numbering
* Batch Numbering Sequence:	BATCH - GL Batch
* Pro Forma Numbering Sequence:	PROFORMA - PM Pro Forma Invoice Numbering
* Change Order Numbering Sequence:	CHANGEORD - PM Change Order Numbering
* Change Request Numbering Sequence:	CHANGERST - PM Change Request Numbering
* Quote Numbering Sequence:	PMQUOTE - Quotes in Project
GENERAL SETTINGS	
* Non-Project Code:	X
* Empty Item Code:	<N/A>
* Empty Item UOM:	EA
Default Change Order Class:	EXT - External change orders
Default Quote Template:	
Project Approval Map:	
Pending Project Approval Notification:	
Pro Forma Approval Map:	Pro Forma Invoice Approval
Pending Pro Forma Approval Notification:	Pro Forma Invoice Approval Notification
Change Request Approval Map:	CR Approval
Pending Change Request Approval Notification:	

You can also specify approval maps and approval notifications for change orders, change requests, and project quotes on the Project Preferences (PM101000) form.

Approval maps are created on the Approval Maps (EP205015) form. Pending approval notifications (as well as mailing notifications) are created on the Notification Templates (SM204003) form.

- b. On the form toolbar of the Pro Forma Invoices form, click **Actions** -> **Approve** and then click **Release**.
- c. On the **Financial Details** tab, select the generated AR invoice, which opens on the Invoices and Memos (AR301000) form.

Pro Forma Invoices

SAVE & CLOSE ACTIONS ▾ REPORTS ▾ 00:00:01

Reference Nbr.:	000008	Project:	ITALIAN - Italian Restaurant Project	Progress Billing Total:	0.00
Status:	Closed	Customer:	ITALIAN01 - The Italian Company	Time and Material Total:	74,693.75
	<input type="checkbox"/> Hold			Tax Total:	0.00
Invoice Date:	4/1/2019			Invoice Total:	74,693.75
Post Period:	04-2019			Retainage Total:	0.00
Description:	Invoice for ITALIAN			Amount Due:	74,693.75

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

INVOICE SETTINGS

AR Doc. Type:	Invoice
AR Ref. Nbr.:	000080
Branch:	HEADOFFICE - SweetLife Head Office ar
Customer Tax Zone:	
Terms:	30D - 30 Days
Due Date:	5/1/2019
Cash Discount Date:	5/1/2019

- d. Clear the **Hold** check box.
- e. Click **Actions** -> **Email Invoice/Memo** on the form toolbar. Notice that a new activity has appeared on the invoice.

NOTES ACTIVITIES (1)

ACTIONS ▾ INQUIRIES ▾ REPORTS ▾ 00:00:01

Approve
Reject
Email Invoice/Memo
Send Email

- f. Review the email sent. Make sure that the printed AR invoice is attached to the email.

Tasks & Activities X

ADD TASK ADD EVENT ADD ACTIVITY ▾

✉ 30 Nov SweetLife Head Office and Wholesale Center: INVOICE #000080
(Customer Ref. Nbr. 000008) is now available

Email Activity

From: System
To: Dustin.Lindquist@italianco.com
CC:
BCC:
Subject: SweetLife Head Office and Wholesale Center: INVOICE #000080 (Customer Ref. Nbr. 000008) is now available

AR Invoice/Memo
Type: Invoice
Reference Nbr.: 000080
Customer: The Italian Company
Location:
Source: AR
Date: 4/1/2019

MESSAGE DETAILS

DETAILED

Dear Customer,

This is an automatic email to notify you that you have a new Invoice available on your account. You will find a copy of INVOICE #000080 (Customer Ref. Nbr. 000008) attached to this email.

If you have any questions, please don't hesitate to contact us at email.

Thank you for choosing SweetLife Head Office and Wholesale Center!

- g.** Now you are ready to release the invoice and get the actual income for the **ITALIAN** project. Click **Release** on the form toolbar to release the AR invoice.

Invoices and Memos

SAVE & CLOSE RELEASE ACTIONS INQUIRIES REPORTS 00 00 01

Type: Invoice	Customer: ITALIAN01 - The Italian Company	Detail Total: 74,693.75
Reference Nbr.: 000080	Terms: 30D - 30 Days	Discount Total: 0.00
Status: Open	* Due Date: 5/1/2019	VAT Taxable T... 0.00
<input type="checkbox"/> Hold	* Cash Discount: 5/1/2019	VAT Exempt T... 0.00
Date: 4/1/2019	Project/Contract: ITALIAN - Italian Restaurant Project	Tax Total: 0.00
Post Period: 04-2019		Balance: 74,693.75
Customer Order: 000080		Amount: 74,693.75
Description: Invoice for ITALIAN		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS APPLICATIONS COMPLIANCE

VIEW SCHEDULE

Branch	Account Group Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Amount * Account	Description	Schedule of Values	Cost Code	\$
HEADOFFICE	SITEREVIEW	Site review work	3.00	HOUR	125.0000	375.00	0.000000	0.00	375.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	10.00	HOUR	125.0000	1,250.00	0.000000	0.00	1,250.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	12.00	HOUR	125.0000	1,500.00	0.000000	0.00	1,500.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	7.00	HOUR	125.0000	875.00	0.000000	0.00	875.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SITEREVIEW	Site review work	2.00	HOUR	125.0000	250.00	0.000000	0.00	250.00 40000	Project Revenue	01	01-311	
HEADOFFICE	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	CONSULTPM	PM activities	8.00	HOUR	125.0000	1,000.00	0.000000	0.00	1,000.00 40000	Project Revenue	01	01-311	
HEADOFFICE	CONSULTPM	PM activities	10.00	HOUR	125.0000	1,250.00	0.000000	0.00	1,250.00 40000	Project Revenue	01	01-311	
HEADOFFICE	SUBCON	Concrete- CIP Slab	110.00	EA	63.1250	6,943.75	0.000000	0.00	6,943.75 40000	Project Revenue	03	03-300	
HEADOFFICE	MATERIAL	Masonry block	0.00	EA	0.0000	43,750.00	0.000000	0.00	43,750.00 40000	Project Revenue	04	04-220	
HEADOFFICE	MATERIAL	Composite wall	0.00	EA	0.0000	12,500.00	0.000000	0.00	12,500.00 40000	Project Revenue	04	04-700	

- h.** On the Projects form, note that there is more actual income on the project now.

Projects

The screenshot shows the Acumatica Projects form for project "ITALIAN". The "Income" field is highlighted with a red box, showing a value of 200,896.25. Other fields visible include Project ID (ITALIAN), Status (Active), Assets (0.00), Liabilities (0.00), and Expenses (202,717.00). The form includes tabs for SUMMARY, TASKS, REVENUE BUDGET, COST BUDGET, BALANCES, COMMITMENTS, INVOICES, CHANGE ORDERS, and CHANGE REQUESTS.

Working with the WIP Report

WIP (work-in-progress or work-in-process) is designed to track the progress of active jobs, as well as their financial performance. In addition to looking at the percentage of completion and the cost to complete, it also determines whether a job is overbilled or underbilled relative to its progress. When using the percentage-of-completion method for revenue recognition, companies include a WIP schedule with their financial statements.

Acumatica ERP Construction Edition supports several versions of WIP reporting, providing necessary information, and with the recent inclusion of a Bonding report, surety companies have visibility into a business's performance.

Now you are in the middle of your construction project life-cycle and you want to know how well you perform. Do the following:

1. Review the project balances for the *ITALIAN* project on the Projects (PM301000) form:

The screenshot shows the Acumatica Project Balances grid for project "ITALIAN". The "Income" section is expanded, showing detailed breakdowns of revenue and expenses. The grid includes columns for Account Group, Description, Original Budgeted Amount, Potential CO Amount, Budgeted CO Amount, Revised Budgeted Amount, Original Committed Amount, Committed CO Amount, Revised Committed Amount, Committed Invocited Amount, Actual Amount, Committed Open Amount, Actual + Open Committed Amount, Variance Amount, and Performance (%).

Account Group	Description	Original Budgeted Amount	Potential CO Amount	Budgeted CO Amount	Revised Budgeted Amount	Original Committed Amount	Committed CO Amount	Revised Committed Amount	Committed Invocited Amount	Actual Amount	Committed Open Amount	Actual + Open Committed Amount	Variance Amount	Performance (%)
> Income														
REVENUE	Project Revenue	2,186,984.80	0.00	6,415.21	2,193,400.01	0.00	0.00	0.00	0.00	200,896.25	0.00	200,896.25	1,992,503.76	9.16
	Income Totals	2,186,984.80			2,193,400.01	0.00				200,896.25	0.00	200,896.25	1,992,503.76	9.16
> Expense														
LABOR	Project Labor	325,585.00	0.00	1,000.00	326,585.00	0.00	0.00	0.00	0.00	9,200.00	0.00	9,200.00	317,385.00	2.82
MATERIAL	Project Material	1,224,870.00	0.00	0.00	1,224,870.00	160,717.00	0.00	160,717.00	145,962.00	145,962.00	14,755.00	160,717.00	1,064,153.00	11.92
OTHER...	Other project expenses	61,551.00	0.00	0.00	61,551.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61,551.00	0.00
SUBCON	Project Subcontract	68,790.00	0.00	2,270.00	71,060.00	52,598.00	2,270.00	54,868.00	47,555.00	47,555.00	7,313.00	54,868.00	16,192.00	66.92
TRAVEL	Project Travel	5,000.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,000.00	0.00
	Expense Totals	1,685,796.00			1,689,066.00	213,315.00		215,585.00	193,517.00	202,717.00	22,068.00	224,785.00	1,464,281.00	12.00

2. On the Project WIP (CU000004) form, specify the following report input parameters:

- **As of Date:** 04/01/2019
- **Project:** *ITALIAN*

Project WIP ☆

RUN REPORT SAVE TEMPLATE REMOVE TEMPLATE

Template	<input type="text"/>	X
<input type="checkbox"/> Default <input type="checkbox"/> Shared		
REPORT PARAMETERS ADDITIONAL SORT AND FILTERS PRINT AND EMAIL		
Organization:	SWEETLIFE - SweetLife Fruits & Jam <input type="button" value="🔍"/>	
Branch:	HEADOFFICE - SweetLife Head Office <input type="button" value="🔍"/>	
As of Date	4/1/2019	
Status	Active	
Exclude Projects Comp...		
Project:	ITALIAN - Italian Restaurant Project <input type="button" value="🔍"/>	

- Click **Run Report** on the form toolbar to generate the WIP report.

Project WIP Report
As Of Date: 4/1/2019
Status: Active
Company: SWEETLIFE
Branch: SweetLife Head Office and Wholesale Center



Project	Description	Status	Contract Amount			Estimated Cost			Est. Gross Profit	Est. Gross Profit %	Project Cost to Date	% Complete	Project Billings to Date	Revenue Received	Actual
			Original	Adjusted CO2	Revised	Original	Adjusted CO2	Revised							
ITALIAN	Italian Restaurant Project	Active	\$2,186,984.80	\$6,415.21	\$2,193,400.01	\$1,685,786.00	\$3,270.00	\$1,689,066.00	\$504,334.01	22.99 %	\$160,717.00	9.52 %	\$200,596.25	\$200,705.09	
	Report Totals:		\$2,186,984.80	\$6,415.21	\$2,193,400.01	\$1,685,786.00	\$3,270.00	\$1,689,066.00	\$504,334.01		\$160,717.00		\$200,596.25	\$200,705.09	

- Click the **PDF** button on the form toolbar to generate a PDF with the report.
- Review whether your project is under-billed or overbilled and what profit has been gained for it.

Gross Profit	Under (Over) Billings
\$47,988.09	\$7,808.84
\$47,988.09	\$7,808.84

Now you as a project manager understand the performance of your project and realize that you will have to bill the customer more to establish a stable project continuation.

- Besides the Project WIP (CU000004) report, Acumatica ERP Construction Edition also provides a Project WIP Detail (CU000005) report that shows the same information at a project revenue budget line level.

Navigate to the Project WIP Detail form and run the report with the following input parameters:

- As of Date:** 04/01/2019

• Project:ITALIAN

Project WIP Detail Report

As Of Date: 4/1/2019

Status: Active



ITALIAN Italian Restaurant Project

TaskID	Description	Cost Code	Contract Amounts			Estimated Costs			Commitments			Est. Gross Profit	Est. Gross Profit %	Project Costs to Date
			Original	Averaged CO's	Revised	Original	Averaged CO's	Revised	Original	Averaged CO's	Revised			
01	GENERAL REQUIREMENTS	01.000 GENERAL REQUIREMENTS	\$0.00	\$1,188.00	\$1,188.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,188.00	100.00 %	\$0.00
01	GENERAL REQUIREMENTS	01.310 General Manager	\$20,281.30	\$0.00	\$20,281.30	\$15,801.00	\$0.00	\$15,801.00	\$0.00	\$0.00	\$0.00	\$4,680.30	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.311 Operations- Project Manager	\$10,500.00	\$0.00	\$10,500.00	\$15,000.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.00	\$4,500.00	23.08 %	\$0,200.00
01	GENERAL REQUIREMENTS	01.313 Operations- Superintendent	\$50,700.00	\$0.00	\$50,700.00	\$30,000.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00	\$11,700.00	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.330 General Crew Leader	\$20,281.30	\$0.00	\$20,281.30	\$20,281.30	\$0.00	\$20,281.30	\$0.00	\$0.00	\$0.00	\$4,680.30	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.336 Design Fees	\$46,750.00	\$0.00	\$46,750.00	\$37,500.00	\$0.00	\$37,500.00	\$0.00	\$0.00	\$0.00	\$11,250.00	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.505 Mobilization	\$8,500.00	\$0.00	\$8,500.00	\$5,000.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$1,500.00	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.510 Temporary Utilities	\$1,235.00	\$0.00	\$1,235.00	\$905.00	\$0.00	\$905.00	\$0.00	\$0.00	\$0.00	\$225.00	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.600 Insurance	\$9,750.00	\$0.00	\$9,750.00	\$7,500.00	\$0.00	\$7,500.00	\$0.00	\$0.00	\$0.00	\$1,500.00	23.08 %	\$0.00
01	GENERAL REQUIREMENTS	01.900 Clean Up	\$13,000.00	\$0.00	\$13,000.00	\$10,000.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00	\$2,000.00	15.50 %	\$0.00
		Task 01 Sub Total:	\$196,163.30	\$196,164.30	\$196,164.30	\$150,561.00	\$150,561.00	\$150,561.00	\$0.00	\$0.00	\$0.00	\$45,553.30	23.03 %	\$9,200.00
02	SITEWORK	02-000 SITEWORK	\$0.00	\$24,494.07	\$24,494.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,494.07	100.00 %	\$0.00
		Task 02 Sub Total:	\$0.00	\$24,494.07	\$24,494.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,494.07	100.00 %	\$0.00
03	CONCRETE	03-000 CONCRETE	\$0.00	\$465.16	\$465.16	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$465.16	100.00 %	\$0.00
03	CONCRETE	03-100 Concrete- Forming	\$5,450.00	\$0.00	\$5,450.00	\$4,200.00	\$0.00	\$4,200.00	\$2,454.00	\$0.00	\$2,454.00	\$1,200.00	23.08 %	\$2,454.00
03	CONCRETE	03-200 Concrete- Reinforcing	\$27,625.00	\$0.00	\$27,625.00	\$21,250.00	\$0.00	\$21,250.00	\$21,246.00	\$0.00	\$21,246.00	\$8,375.00	23.08 %	\$21,246.00
03	CONCRETE	03-300 Concrete- CIP Slabs	\$10,200.00	\$0.00	\$10,200.00	\$7,900.00	\$0.00	\$7,900.00	\$7,360.00	\$0.00	\$7,360.00	\$3,250.00	23.08 %	\$7,360.00
03	CONCRETE	03-350 Concrete- Poles	\$11,782.00	\$0.00	\$11,782.00	\$8,400.00	\$0.00	\$8,400.00	\$8,400.00	\$0.00	\$8,400.00	\$3,320.00	19.81 %	\$8,400.00
		Task 03 Sub Total:	\$148,197.00	\$468.16	\$148,665.16	\$113,990.00	\$330.00	\$114,370.00	\$106,617.00	\$0.00	\$0.00	\$34,265.16	23.08 %	\$106,617.00
04	MASONRY	04-220 Masonry- Block	\$73,125.00	\$0.00	\$73,125.00	\$55,250.00	\$0.00	\$55,250.00	\$46,877.00	\$0.00	\$46,877.00	\$10,875.00	23.08 %	\$35,000.00
04	MASONRY	04-700 Masonry- Composite Walls	\$19,500.00	\$0.00	\$19,500.00	\$15,000.00	\$0.00	\$15,000.00	\$12,878.00	\$0.00	\$12,878.00	\$4,400.00	23.08 %	\$15,000.00
		Task 04 Sub Total:	\$92,625.00	\$0.00	\$92,625.00	\$71,250.00	\$0.00	\$71,250.00	\$59,755.00	\$0.00	\$59,755.00	\$21,375.00	23.08 %	\$45,000.00
05	WOOD PLASTICS COMPOSITES	05-100 Carpentry- Rough	\$10,367.00	\$0.00	\$10,367.00	\$7,075.00	\$0.00	\$7,075.00	\$0.00	\$0.00	\$0.00	\$2,392.50	23.08 %	\$0.00
05	WOOD PLASTICS COMPOSITES	05-110 Framing- Wood	\$64,480.00	\$0.00	\$64,480.00	\$40,000.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.00	\$14,880.00	23.08 %	\$0.00
05	WOOD PLASTICS COMPOSITES	05-160 Framing- Siding	\$8,207.50	\$0.00	\$8,207.50	\$8,207.50	\$0.00	\$8,207.50	\$4,775.00	\$0.00	\$4,775.00	\$1,432.50	23.08 %	\$0.00
05	WOOD PLASTICS COMPOSITES	05-190 Fabricated- Wood Trusses	\$40,400.00	\$0.00	\$40,400.00	\$38,000.00	\$0.00	\$38,000.00	\$0.00	\$0.00	\$0.00	\$11,400.00	23.08 %	\$0.00
05	WOOD PLASTICS COMPOSITES	05-250 Finish- Paneling	\$9,390.00	\$0.00	\$9,390.00	\$7,200.00	\$0.00	\$7,200.00	\$0.00	\$0.00	\$0.00	\$2,180.00	23.08 %	\$0.00
05	WOOD PLASTICS COMPOSITES	05-440 Woodwork- Ornamental	\$17,517.50	\$0.00	\$17,517.50	\$13,475.00	\$0.00	\$13,475.00	\$0.00	\$0.00	\$0.00	\$4,042.50	23.08 %	\$0.00
		Task 05 Sub Total:	\$157,332.50	\$0.00	\$157,332.50	\$121,025.00	\$0.00	\$121,025.00	\$0.00	\$0.00	\$0.00	\$36,307.50	23.08 %	\$0.00
07	TERMAL AND MOISTURE PROTECTION	07-200 Insulation	\$14,157.50	\$0.00	\$14,157.50	\$26,275.00	\$0.00	\$26,275.00	\$0.00	\$0.00	\$0.00	\$7,882.50	23.08 %	\$0.00
07	TERMAL AND MOISTURE PROTECTION	07-300 Roofing, Steep Slope	\$132,496.00	\$0.00	\$132,496.00	\$101,920.00	\$0.00	\$101,920.00	\$0.00	\$0.00	\$0.00	\$30,576.00	23.08 %	\$0.00
		Task 07 Sub Total:	\$166,665.50	\$0.00	\$166,665.50	\$128,195.00	\$0.00	\$128,195.00	\$0.00	\$0.00	\$0.00	\$38,458.50	23.08 %	\$0.00
08	OPENINGS	08-000 OPENINGS	\$0.00	\$2,254.98	\$2,254.98	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,254.98	100.00 %	\$0.00
08	OPENINGS	08-100 Doors- Exterior	\$12,220.00	\$0.00	\$12,220.00	\$8,400.00	\$0.00	\$8,400.00	\$10,440.00	\$0.00	\$10,440.00	\$1,780.00	14.57 %	\$0.00
08	OPENINGS	08-200 Doors- Interior	\$10,725.00	\$0.00	\$10,725.00	\$8,200.00	\$0.00	\$8,200.00	\$8,000.00	\$0.00	\$8,000.00	\$1,475.00	23.08 %	\$0.00
08	OPENINGS	08-400 Skylights/Head	\$3,645.00	\$0.00	\$3,645.00	\$2,800.00	\$0.00	\$2,800.00	\$3,800.00	\$0.00	\$3,800.00	\$640.00	23.08 %	\$0.00
08	OPENINGS	08-520 Windows- Wood	\$26,325.00	\$0.00	\$26,325.00	\$20,250.00	\$860.00	\$21,100.00	\$860.00	\$860.00	\$860.00	\$5,225.00	19.85 %	\$0.00
08	OPENINGS	08-800 Entrances, Storefronts, Curtain Walls	\$42,250.00	\$0.00	\$42,250.00	\$32,500.00	\$0.00	\$32,500.00	\$0.00	\$0.00	\$0.00	\$9,750.00	23.08 %	\$0.00

Working with the AIA Printed Form

One common construction billing format is known as AIA progress billing, named after the American Institute of Architects that produces its official forms. As a type of progress billing, AIA billing invoices the customer based on the percentage of work completed for that billing period. This invoice generally consists of a signed summary sheet [G702], followed by a schedule of values [G703] that details what's been completed and billed to date.

Together, these documents are considered an "application" for payment, because the recipient will have a chance to review the schedule of values and either accept or dispute the billed amount. If they disagree, they'll send back "redlines" so that the contractor can revise and resubmit the AIA billing application.

AIA Document G702™-1992, Application and Certificate for Payment, and G703™-1992, Continuation Sheet, provide convenient and complete forms on which the contractor can apply for payment and the architect can certify that payment is due. The forms require the contractor to show the status of the contract sum to date, including the total dollar amount of the work completed and stored to date, the amount of retainage (if any), the total of previous payments, a summary of change orders, and the amount of current payment requested. AIA Document G703-1992 breaks the contract sum into portions of the work in accordance with a schedule of values prepared by the contractor as required by the general conditions. NOTE: The AIA does not publish a standard schedule of values form. AIA Document G702-1992 serves as both the contractor's application and the architect's certification. Its use can expedite payment and reduce the possibility of error. If the application is properly completed and acceptable to the architect, the architect's signature certifies to the owner that a payment in the amount indicated is due to the contractor. The form also allows the architect to certify an amount different than the amount applied for, with explanation provided by the architect.


AIA® Document G702™ – 1992
Application and Certificate for Payment

TO OWNER:	PROJECT:	APPLICATION NO:	Distribution to:
		PERIOD TO:	OWNER <input type="checkbox"/>
		CONTRACT FOR:	ARCHITECT <input type="checkbox"/>
FROM CONTRACTOR:	VIA ARCHITECT:	CONTRACT DATE:	CONTRACTOR <input type="checkbox"/>
		PROJECT NOS:	FIELD <input type="checkbox"/>
			OTHER <input type="checkbox"/>

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
AIA Document G703™, Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM	\$ _____
2. NET CHANGE BY CHANGE ORDERS	\$ _____
3. CONTRACT SUM TO DATE (Line 1 ± 2)	\$ _____
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	\$ _____
5. RETAINAGE:	
a. % of Completed Work (Columns D + E on G703)	\$ _____
b. % of Stored Material (Column F on G703)	\$ _____
Total Retainage (Lines 5a + 5b, or Total in Column I of G703) \$ _____	
6. TOTAL EARNED LESS RETAINAGE	\$ _____
(Line 4 minus Line 5 Total)	
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT	\$ _____
(Line 6 from prior Certificate)	
8. CURRENT PAYMENT DUE	\$ _____
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 minus Line 6)	\$ _____

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$ _____	\$ _____
Total approved this month	\$ _____	\$ _____
TOTAL	\$ _____	\$ _____
NET CHANGES by Change Order		

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:
By: _____ Date: _____
State of: _____
County of: _____
Subscribed and sworn to before
me this _____ day of _____
Notary Public:
My commission expires: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ _____
(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:
By: _____ Date: _____
This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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AIA® Document G703™ – 1992
Continuation Sheet

AIA Document G703™–1992, Application and Certificate for Payment, or G732™–2009, Application and Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.
In tabulations below, amounts are in US dollars.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:
APPLICATION DATE:
PERIOD TO:
ARCHITECT'S PROJECT NO:

ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED		MATERIALS PRESENTLY STORED (Not in D or E)	TOTAL COMPLETED AND STORED TO DATE (D+E+F)	% (G+C)	BALANCE TO FINISH (C-G)	RETAINAGE (If variable rate)
			FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD					
	GRAND TOTAL								

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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Acumatica ERP Construction Edition provides the following similar reports:

- Standard AIA Report (PM000019)
- AIA with Quantity (PM000020)
- AIA with Retainage Released (CU000112)

Do the following:

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

It is a progress billing project.

2. You can see that almost half of the project has already been finished and there are invoices on the **Invoices** tab.

Projects

SAVE & CLOSE + - X K < > I RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾

* Project ID:	HOTEL	* Status:	Active	Assets:	0.00						
Customer:	EQUGRP - The Equity Group Investor	<input type="checkbox"/> Hold	Liabilities:	0.00							
Template:			Income:	22,667,202.71							
* Description:	The Beach Hotel and Condominiums, New York		Expenses:	720,020.00							
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACT	
Project Task:				<input type="checkbox"/> Group by Task	Pending Invoice Amount Total:	0.00					
○ + X VIEW TRANSACTIONS X ↑											
#	Cost Code	*Account Group	Description	UOM	Original Budgeted Amount	Potential CO Amount	Revised Budgeted Amount	Budgeted CO Amount	Actual Amount		
> 01	01-000	REVENUE	GENERAL REQUIREMENTS	HOUR	4,154,366.00	0.00	4,154,366.00	0.00	4,154,366.00		
02	02-000	REVENUE	SITEWORK	HOUR	1,809,185.00	1,285.39	1,809,185.00	0.00	1,537,807.25		
03	03-000	REVENUE	CONCRETE	HOUR	8,319,840.00	0.00	8,319,840.00	0.00	5,574,292.80		
04	04-000	REVENUE	MASONRY	HOUR	1,210,648.00	0.00	1,210,648.00	0.00	544,791.60		
05	05-000	REVENUE	METALS	HOUR	1,901,356.00	0.00	1,901,356.00	0.00	950,678.00		
06	06-000	REVENUE	WOODS, PLASTICS, COMPOSITES	HOUR	1,225,000.00	0.00	1,225,000.00	0.00	465,500.00		
07	07-000	REVENUE	THERMAL AND MOISTURE PROTECTION	HOUR	989,355.00	0.00	989,355.00	0.00	652,974.30		
08	08-000	REVENUE	OPENINGS	HOUR	1,638,760.00	2,264.98	1,638,760.00	0.00	786,604.80		
09	09-000	REVENUE	FINISHES	HOUR	8,110,796.00	0.00	8,110,796.00	0.00	4,542,045.76		
10	00-000	REVENUE	DEFAULT	HOUR	0.00	0.00	0.00	0.00	0.00		
10	10-000	REVENUE	SPECIALTIES	HOUR	1,449,500.00	0.00	1,449,500.00	0.00	579,800.00		
11	11-000	REVENUE	EQUIPMENT	HOUR	1,135,000.00	0.00	1,135,000.00	0.00	737,750.00		
13	13-000	REVENUE	SPECIAL CONSTRUCTION	HOUR	345,500.00	0.00	345,500.00	0.00	138,200.00		
14	14-000	REVENUE	CONVEYING SYSTEMS	HOUR	696,919.00	0.00	696,919.00	0.00	334,521.12		
15	15-000	REVENUE	MECHANICAL	HOUR	3,910,742.00	0.00	3,910,742.00	0.00	1,329,652.28		
16	16-000	REVENUE	ELECTRICAL	HOUR	2,818,490.00	0.00	2,818,490.00	0.00	338,218.80		

Projects

NOTES FILES NOT
SAVE & CLOSE + - X K < > I RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾ INQUIRIES ▾ REPORT

* Project ID:	HOTEL	* Status:	Active	Assets:	0.00						
Customer:	EQUGRP - The Equity Group Investor	<input type="checkbox"/> Hold	Liabilities:	0.00							
Template:			Income:	22,667,202.71							
* Description:	The Beach Hotel and Condominiums, New York		Expenses:	720,020.00							
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEE
○ RELEASE RETAINAGE X											
All Records											
Pro Forma Date	Pro Forma Reference Nbr.	Description		Status	Invoice Total	Currency	AR Doc. Type	AR Reference Nbr.	AR Doc. Date	AR Doc. Description	
> 11/30/2019	000011	Invoice for HOTEL		Closed	6,461,598.09	USD	Invoice	000083	11/30/2019	Invoice for HOTEL	
11/30/2019	000012	Invoice for HOTEL		Closed	16,205,604.62	USD	Invoice	000084	11/30/2019	Invoice for HOTEL	

3. Open the Pro Forma invoice with **Invoice Total = 16,205,604.62**.

Pro Forma Invoices

SAVE & CLOSE ACTIONS ▾ REPORTS ▾

Reference Nbr.: 000012	Project: HOTEL - The Beach Hotel and Condominium	Progress Billing Total: 16,205,604.62
Status: Closed	Customer: EQUGRP - The Equity Group Investors	Time and Material Total: 0.00
Hold		Tax Total: 0.00
Invoice Date: 11/30/2019		Invoice Total: 16,205,604.62
Post Period: 11-2019		Retainage Total: 810,280.24
Description: Invoice for HOTEL		Amount Due: 15,395,324.38

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

Branch	Billing Item	Cost Code	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Retainage (%)	Retainage Amount
> HEADOFFICE 01	01-000	GENERAL REQUIREMENTS	4,154,366.00	1,038,591.50	100.00	3,115,774.50	0.00	3,115,774.50	75.00	5.00	155,278.73	
& HEADOFFICE 02	02-000	SITEWORK	1,809,185.00	180,918.50	85.00	1,356,888.75	0.00	1,356,888.75	75.00	5.00	67,844.44	
& HEADOFFICE 03	03-000	CONCRETE	8,319,840.00	1,081,579.20	67.00	4,492,713.60	0.00	4,492,713.60	54.00	5.00	224,635.68	
& HEADOFFICE 04	04-000	MASONRY	1,210,648.00	217,916.64	45.00	326,874.96	0.00	326,874.96	27.00	5.00	16,343.75	
& HEADOFFICE 05	05-000	METALS	1,901,356.00	380,271.20	50.00	570,406.80	0.00	570,406.80	30.00	5.00	28,520.34	
& HEADOFFICE 06	06-000	WOODS, PLASTICS, COMPOSITES	1,225,000.00	306,250.00	38.00	159,250.00	0.00	159,250.00	13.00	5.00	7,962.50	
& HEADOFFICE 07	07-000	THERMAL AND MOISTURE PROTECTION	989,355.00	395,742.00	66.00	257,232.30	0.00	257,232.30	26.00	5.00	12,861.62	
& HEADOFFICE 08	08-000	OPENINGS	1,638,760.00	213,038.80	48.00	573,566.00	0.00	573,566.00	35.00	5.00	28,678.30	
& HEADOFFICE 09	09-000	FINISHES	8,110,796.00	1,216,619.40	56.00	3,325,426.36	0.00	3,325,426.36	41.00	5.00	166,271.32	
& HEADOFFICE 10	10-000	SPECIALTIES	1,449,500.00	362,375.00	40.00	217,425.00	0.00	217,425.00	15.00	5.00	10,871.25	
& HEADOFFICE 11	11-000	EQUIPMENT	1,135,000.00	295,100.00	65.00	442,650.00	0.00	442,650.00	39.00	5.00	22,132.50	
& HEADOFFICE 14	14-000	CONVEYING SYSTEMS	696,919.00	243,921.65	48.00	90,599.47	0.00	90,599.47	13.00	5.00	4,529.97	
& HEADOFFICE 15	15-000	MECHANICAL	3,910,742.00	391,074.20	34.00	938,578.08	0.00	938,578.08	24.00	5.00	46,928.90	
& HEADOFFICE 16	16-000	ELECTRICAL	2,818,490.00	0.00	12.00	338,218.80	0.00	338,218.80	12.00	5.00	16,910.94	

4. Review the invoice, and then go to the Standard AIA Report (PM000019) form and print it for the invoice you have just reviewed.

Standard AIA Report ☆

PRINT SEND EXPORT ▾

APPLICATION AND CERTIFICATION FOR PAYMENT																						
TO OWNER:	The Equity Group Investors 958 51st Aven	PROJECT: The Beach Hotel and Condominiums Primary Location	APPLICATION NO: 000007	Distribution to:																		
FROM CONTRACTOR:	SweetLife Head Office and Wholesale Center		PERIOD TO: 5/1/2019	<input type="checkbox"/> OWNER <input type="checkbox"/> ARCHITECT <input type="checkbox"/> CONTRACTOR <input type="checkbox"/>																		
Contract For:	CONTRACTOR'S APPLICATION FOR PAYMENT																					
<p>Application is made for payment, as shown below, in connection with the Contract Continuation Sheet is attached.</p> <table border="1"> <tr><td>1. ORIGINAL CONTRACT SUM</td><td>\$39,715,457.00</td></tr> <tr><td>2. Net Change by Change Orders</td><td>\$0.00</td></tr> <tr><td>3. CONTRACT SUM TO DATE (Line 1+2)</td><td>\$39,715,457.00</td></tr> <tr><td>4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)</td><td>\$22,667,202.71</td></tr> <tr><td>5. RETAINAGE a. % of Completed Work & Stored Material (Column D + E + F on G703)</td><td>\$1,133,360.15</td></tr> <tr><td>6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)</td><td>\$21,533,842.55</td></tr> <tr><td>7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior certificate)</td><td>\$6,139,516.18</td></tr> <tr><td>8. CURRENT PAYMENT DUE</td><td>\$15,395,324.38</td></tr> <tr><td>9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 Less Line 8 Total)</td><td>\$18,181,614.44</td></tr> </table> <p>CONTRACTOR: By: _____ Date: _____ State of: NY Country of: US Subscribed and sworn to before me this _____ day of _____ Notary Public: My Commission expires: _____</p> <p>In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED. _____ \$ _____</p>					1. ORIGINAL CONTRACT SUM	\$39,715,457.00	2. Net Change by Change Orders	\$0.00	3. CONTRACT SUM TO DATE (Line 1+2)	\$39,715,457.00	4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	\$22,667,202.71	5. RETAINAGE a. % of Completed Work & Stored Material (Column D + E + F on G703)	\$1,133,360.15	6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)	\$21,533,842.55	7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior certificate)	\$6,139,516.18	8. CURRENT PAYMENT DUE	\$15,395,324.38	9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 Less Line 8 Total)	\$18,181,614.44
1. ORIGINAL CONTRACT SUM	\$39,715,457.00																					
2. Net Change by Change Orders	\$0.00																					
3. CONTRACT SUM TO DATE (Line 1+2)	\$39,715,457.00																					
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	\$22,667,202.71																					
5. RETAINAGE a. % of Completed Work & Stored Material (Column D + E + F on G703)	\$1,133,360.15																					
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)	\$21,533,842.55																					
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior certificate)	\$6,139,516.18																					
8. CURRENT PAYMENT DUE	\$15,395,324.38																					
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 Less Line 8 Total)	\$18,181,614.44																					

CONTINUATION SHEET

APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

APPLICATION NO: 000012

APPLICATION DATE: 11/30/2019

PERIOD TO: 12/30/2019

ARCHITECT'S PROJECT NO: HOTEL

ITEM	DESCRIPTION OF WORK	ORIGINAL SCHEDULED VALUE	CHANGE ORDERS	REVISED SCHEDULED VALUE	WORK COMPLETED THIS PERIOD		STORED MATERIALS	TOTAL COMPLETED AND STORED TO DATE	% Comp	BALANCE TO FINISH	RETAINAGE HELD
					FROM PREVIOUS APPLICATION	THIS PERIOD					
01	GENERAL REQUIREMENTS	\$4,154,366.00	\$0.00	\$4,154,366.00	\$1,038,591.50	\$3,115,774.50	\$0.00	\$4,154,366.00	100.0%	\$0.00	\$207,718.31
02	SITEWORK	\$1,809,185.00	\$0.00	\$1,809,185.00	\$180,918.50	\$1,356,888.75	\$0.00	\$1,537,807.25	85.0%	\$271,377.75	\$76,890.37
03	CONCRETE	\$8,319,840.00	\$0.00	\$8,319,840.00	\$1,081,579.20	\$4,492,713.60	\$0.00	\$5,574,292.80	67.0%	\$2,745,547.20	\$278,714.64
04	MASONRY	\$1,210,648.00	\$0.00	\$1,210,648.00	\$217,916.64	\$326,874.96	\$0.00	\$544,791.60	45.0%	\$665,856.40	\$27,239.58
05	METALS	\$1,901,356.00	\$0.00	\$1,901,356.00	\$380,271.20	\$570,406.80	\$0.00	\$950,678.00	50.0%	\$950,678.00	\$47,533.90
06	WOOD, PLASTICS, COMPOSITES	\$1,225,000.00	\$0.00	\$1,225,000.00	\$306,250.00	\$159,250.00	\$0.00	\$465,500.00	38.0%	\$759,500.00	\$23,275.00
07	THERMAL AND MOISTURE PROTECTION OPENINGS	\$989,355.00	\$0.00	\$989,355.00	\$395,742.00	\$257,232.30	\$0.00	\$652,974.30	66.0%	\$336,380.70	\$32,648.72
08	FINISHES	\$1,638,760.00	\$0.00	\$1,638,760.00	\$213,038.80	\$573,566.00	\$0.00	\$786,604.80	48.0%	\$852,155.20	\$39,330.24
09	SPECIALTIES	\$1,449,500.00	\$0.00	\$1,449,500.00	\$362,375.00	\$217,425.00	\$0.00	\$4,542,045.76	56.0%	\$3,568,750.24	\$227,102.29
10	EQUIPMENT	\$1,135,000.00	\$0.00	\$1,135,000.00	\$295,100.00	\$442,650.00	\$0.00	\$579,800.00	40.0%	\$869,700.00	\$28,990.00
14	CONVEYING SYSTEMS	\$696,919.00	\$0.00	\$696,919.00	\$243,921.65	\$90,599.47	\$0.00	\$334,521.12	48.0%	\$362,397.88	\$16,726.05
15	MECHANICAL	\$3,910,742.00	\$0.00	\$3,910,742.00	\$391,074.20	\$938,578.08	\$0.00	\$1,329,652.28	34.0%	\$2,581,089.72	\$66,482.61
16	ELECTRICAL	\$2,818,490.00	\$0.00	\$2,818,490.00	\$0.00	\$338,218.80	\$0.00	\$338,218.80	12.0%	\$2,480,271.20	\$16,910.94
Totals:		\$39,369,957.00	\$0.00	\$39,369,957.00	\$6,323,398.09	\$16,205,604.62	\$0.00	\$22,529,002.71	57.2%	\$16,840,954.29	\$1,126,450.15

If you release the retainage for the project, you might find the AIA with Retainage Released (CU000112) report useful. The report searches for any retainage invoices (with the **Retainage Released** amount) and applies that "released" amount to the **Retainage Held**. Also, if you are operating with quantities, you can use the AIA with Quantity (PM000020) report.

Working with the Bonding Report

The Project Bonding (Profitability) report provides Earned Revenue, Billed to Date, Unbilled Contract Amounts, as well as Cost Incurred to Date, Calculated Cost at Completion, Current Period Costs/Billings, as well as the prior year's Billings and Costs.

By using the Bonding Report form, you can create a report of work in progress for projects for a selected date range. This report can be used by management as well as external entities, such as bonding companies, to determine the financial health of projects.

The report gives you a bigger snapshot of all the projects in the system and provides management confidence. You will learn how much is actually billed for the project compared to the percentage of the project completion.

To ensure profitability, you want to see how projects are performing and which of them need special attention. Do the following:

- On the Construction Bonding Report (CU000115) form, specify the following input parameters:
 - As of Date:** 12/01/2019
 - Leave the default values for all the other parameters.

2. Click Run Report on the form toolbar.

The report will show the state of all the active projects as of December, 2019.

Construction Bonding Report											Date:	Page:			
At Date:	12/1/2019	Status:	Active	Company:	SWEETLIFE	Branch:	SweetLife Head Office and Wholesale Center						User:		
Project	Description	Contract Amount	% Complete	Earned Revenue	Billed to Date	% Billed	Over/Under Billed	Unbilled Contract Amount	Cost to Date	Cost To Complete	Cost At Complete	Period Billing	Period Cost	Billed Through	
HOTEL	The Beach Hotel and Condominiums	\$39,715,457.00	0.00 %	\$0.00	\$22,667,202.71	57.07 %	\$22,667,202.71	\$17,048,254.29	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	12/31/2019	
HOTELS	The Beach Hotel and Condominiums	\$39,715,457.00	0.00 %	\$0.00	\$0.00	0.00 %	\$0.00	\$39,715,457.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	12/31/2019	
ITALIANI	Italian Restaurant Project	\$21,190,000.00	12.00 %	\$262,245.00	\$200,858.00	74.00 %	\$61,342.00	\$15,847,752.00	\$20,770.00	\$20,770.00	\$20,770.00	\$30,217.00	\$0.00	12/31/2019	
ITALIANI	Italian Restaurant Project	\$2,186,984.80	36.00 %	\$0.00	\$0.00	0.00 %	\$0.00	\$2,186,984.80	\$1,510,510.00	\$1,510,510.00	\$1,510,510.00	\$191,317.00	\$0.00	12/31/2019	
ITALIANI-73	Italian Restaurant Project	\$2,193,400.01	11.34 %	\$24,701.19	\$0.00	0.00 %	\$0.00	\$193,400.01	\$1,510,510.00	\$1,510,510.00	\$1,510,510.00	\$191,317.00	\$0.00	12/31/2019	
Totals:		\$56,004,698.82	0.91 %	\$760,402.54	\$22,868,098.96	26.59 %	\$2,107,696.42	\$63,136,599.86	\$585,751.00	\$0.00	\$585,751.00	\$0.00	\$0.00	\$0.00	12/31/2019

Lesson 21: Retainage with Cap and Steps

Acumatica ERP Construction Edition supports the following retainage modes for a project:

- *Standard*
- *Standard with Steps*
- *Contract Cap*
- *Contract Item Cap*
- *Contract Cap with Steps*

In the framework of this lesson we will pay special attention to the scenario for *Contract Cap* retainage without steps.

With the *Contract Cap* retainage mode enabled, the selected contract cap retainage is applied to a project according to the following rules. As soon as the **Cap** is reached, the **Total Retained Amount** held per project is reallocated between the invoice lines based on their weight and retainage capacity. In other words, after the cap amount is reached, the following applies:

- The invoices have the same total **Allocated Retained Amount** but with different portions of it in the invoice lines.
- No new **Retainage Amount** is calculated.
- The total retainage amount held per project stays the same across all the project invoices, except for the following cases:
 - We start billing the customer and the total retainage amount is less than the cap amount (the contract completion percent is less than the cap percent)
 - We release retainage
 - We release a change order that affects the project revenue budget

Before you can utilize the *Contract Cap* retainage mode, the following should be done:

- On the Enable/Disable Features (CS100000) form, the *Retainage Support* and *Payment Application by Line* features must be enabled.
- On the **Summary** tab of the Projects (PM301000) form, in the **Retainage** section:
 - *Contract Cap* should be selected in the **Retainage Mode** box.
 - **Retainage (%)** should be specified at the contract level.
 - **Cap (%)** should be specified.
 - The **Include CO** check box should be cleared or selected, depending on whether you prefer to calculate **Contract Total** and contract **Completed (%)** based on the

original revenue budget values (without change orders taken into effect) or based on the revised ones (with change orders included in the calculation).

Based on these values, the system calculates the cap amount, which is the maximum retainage value that can be ever held for the project. If you decide to include change orders in the calculation, then **Contract Total, Completed (%)**, and the cap amount will change in accordance with the changes in the revenue budget due to the released change orders.

After that, to utilize the *Contract Cap* retainage, you should perform project progress billing with pro forma as usual.

Each progress billing pro forma invoice will validate the **Total Retained Amount** held per project and calculate **Retainage Amount** based on the rules specified in the diagram below.

After the cap has been reached and the **Total Retained Amount** held per project is at its maximum, no new retainage amount is calculated and the reallocation on the **Allocated Retained Amount** takes place based on the invoice lines' weight as shown in the diagram below.

You can gradually release the retainage held on the Release AR Retainage (AR510000) form to clear the **Unreleased Retainage** balance held on the AR invoice lines thus decreasing the **Total Retained Amount** held per project. Once such a situation happens, the progress billing procedure follows the same rules as described above so that the **Total Retained Amount** tends to the cap amount once again.

The *Contract Item Cap* retainage mode is almost the same as *Contract Cap* with the only difference that it is applied at the line level instead of the contract level and the cap and retainage are specified for each revenue budget line in particular. The mode is used not to exceed the certain retainage amount per revenue budget line—that is, the cap amount.

Standard retainage has been supported in Acumatica since version 2018 R1. It works both together and separately from the *Payment Application by Line* feature; it only requires that the *Retainage Support* feature is enabled. This mode is applicable to both progress and time and material billing.

The default **Retainage (%)** for a project is defined on the **Summary** tab of the Projects (PM301000) form, and it can be modified by the user at any time. It is used as the default value in the following cases:

- For revenue budget lines; from these lines, the Retainage (%) value is copied to the progress billing invoice lines
- For time and material invoice lines
- For AR invoice lines that originate from the Invoices and Memos (AR301000) form

In addition to this, steps can be applied to the *Standard* and *Contract Cap* retainage modes if necessary. The **Use Steps** check box, if selected, enables steps for the retainage and reveals the **Stepped Retainage** table which allows a user to specify thresholds for automatic alteration of the Retainage (%) value by using the following boxes:

- **Threshold (%)**: The contract completion percent on reaching which the value of the default Retainage (%) will change to the figure specified in the Retainage (%) column of that table.
- **Retainage (%)**: The new retainage percent to be applied to the project revenue budget lines in accordance with the selected retainage mode.

The *Contract Cap* retainage mode with steps is similar to the *Contract Cap* retainage mode without steps, except for the following:

- Same as *Contract Cap* Retainage w/o steps, except for the following:
 - On the **Summary** tab of the Projects (PM301000) form, in the **Retainage** section, instead of a single retainage percent, you should specify several **Threshold (%)** and **Retainage (%)** values at the contract level in the **Stepped Retainage** table so that the system will apply a certain retainage percent during each progress billing iteration depending on the contract's completion percent.
 - In addition to the cap validation, a step validation takes place on each progress billing iteration. If your contract completion hits the threshold (note that a new retainage step is reached with the current invoice being generated) and the retainage percent is changed, the system recalculates the cap amount, and this and further billing iterations will be validated against the newly calculated cap figures.

The *Standard* retainage mode with steps requires the following configuration:

- The *Retainage Support* and *Payment Application by Line* features should be enabled on the Enable/Disable Features (CS100000) form.
- On the **Summary** tab of the Projects (PM301000) form, in the Retainage section, the following settings should be specified:
 - **Retainage Mode**: *Standard*
 - **Stepped**: Selected

This retainage mode is similar to the standard retainage mode without steps, except for the following:

- You specify an applicable retainage percent until a certain completion percent is reached in the **Stepped Retainage** table which becomes available when the **Stepped** check box is selected.
- The retainage percent that corresponds to the specific project completion percent is by default populated in the revenue budget lines and in the AR invoice lines that originate from the Invoices and Memos (AR301000) form.
- The user cannot modify the **Retainage (%)** value in the revenue budget lines with this mode configured.
- The project completion threshold percent is the **Completed (%)** value of the contract total that can be seen in the **Retainage** section on the **Summary** tab of the Projects (PM301000) form.

- Progress billing is run as usual inheriting the retainage percent from the corresponding revenue budget lines. No effect on the time and material billing takes place (that is, it works as usual).

Lesson Objectives

In this lesson, you will do the following:

- Learn how to configure contract cap and stepped retainage for a project
- Create pro forma invoices with retainage for the project until retainage cap is reached
- Release retainage for the project by several project budget lines
- Process retainage invoices in bulk

Company Story

We are a general contractor building a hotel. We have already set up the original project budget and have agreed with the customer that until we reach the middle of the construction project, they will retain some percentage from the contract sum, which is the customer's guarantee that we will meet our obligations in building the hotel. However, not only the customer needs to protect themselves but also we as a general contractor need to make sure that we have enough resources to continue our daily operations, meaning we cannot afford to have more amount retained by the customer than a certain sum. Thus, we define the retainage cap which dictates the maximum retainage amount that can be held per the project. This means contract cap retainage is applied to our contract.

System Preparation

Sign in to Acumatica ERP by using the *owen* login and the *123* password.

Reviewing the Retainage Configuration

To review the retainage configuration, do the following:

1. Open the Enable/Disable Features (CS100000) form and make sure that the *Retainage Support* and *Payment Application by Line* features are enabled.
2. Open the Projects (PM301000) form and select *HOTEL2* in the **Project ID** box.
3. On the **Summary** tab of the form, review the following settings in the **Retainage** section, shown on the screenshot below:
 - **Retainage Mode:** *Contract Cap*
 - **Include CO:** Selected
 - **Retainage (%):** 5.00
 - **Cap (%):** 50.00

RETAINAGE

Retainage Mode:	Contract Cap
<input checked="" type="checkbox"/> Include CO	
Contract Total:	39,715,457.00
Completed (%):	48.26
Total Retained Amount:	958,392.99
Retainage (%):	5.00
Cap (%):	50.00
	992,886.42

4. Review the values in the following boxes:

- **Contract Total:** The sum of the revenue budget lines - **Original Budgeted Amount** or **Revised Budgeted Amount**, if the **Include CO** check box is selected
- **Completed (%)**: Calculated as **(Σ Draft Invoice Amount + Σ Actual Amount + Σ Pending Invoice Amount of all the project revenue budget lines) / Contract Total**
- **Total Retained Amount**: The total unreleased retainage held for the project (this amount is not included in the project completion calculation)
- Cap Amount: This is the maximum retainage held per project, calculated as follows:
 - Cap Amount (max retainage for contract) = **Contract Total * Cap (%) * Retainage (%)**
 - Retainage per project never exceeds the value of the cap amount (maximum retainage held).

5. On the Customers (AR303000) form, make sure that for the *EQUGRP* customer, *18000* is specified in the **Retainage Receivable Account** box on the **GL Accounts** tab.

Performing a Progress Billing of a Project with the Contract Cap Retainage Mode

The *HOTEL2* project is configured as a fixed price contract with a progress billing rule specified for its tasks. It has already been billed several times.

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	Original Retainage	AR Doc. Total Amount	Open AR Balance	Currency	AR Doc. Status	Unreleased Retainage
> 6/1/2019	000008	Progress billing application #1 for HOTEL2	Closed	415,436.60	USD	Invoice	000085	6/1/2019	Progress billing appl...	394,664.77	20,771.83	415,436.60	394,664.77	USD	Open	20,771.83
7/1/2019	000009	Progress billing application #2 for HOTEL2	Closed	7,219,630.64	USD	Invoice	000086	7/1/2019	Progress billing appl...	6,858,649.11	360,981.53	7,219,630.64	6,858,649.11	USD	Open	360,981.53
8/1/2019	000010	Progress billing application #3 for HOTEL2	Closed	11,532,792.25	USD	Invoice	000087	8/1/2019	Progress billing appl...	10,956,152.62	576,639.63	11,532,792.25	10,956,152.62	USD	Open	576,639.63

- On the Projects (PM301000) form, on the **Invoices** tab, click the link for pro forma invoice for application #1 in the **Pro Forma Reference Nbr.**.

Notice the following values:

- On the **Summary** tab:
 - Retainage (%)**: The default retainage percent applied to the invoice lines to calculate the retainage.
 - Retainage Amount**: Retainage held in this pro forma invoice.
 - Allocated Retained Total**: The amount of retainage that is held for project (not released, or "billed", yet), including this pro forma invoice. This total equals **Total Retained Amount** for the project.
- On the **Progress Billing** tab:
 - Allocated Retained Amount**: The amount of retainage that is considered to be held for the related revenue budget line in this pro forma invoice. This is an informational field that shows how total retainage held for the project is split among the project revenue budget lines.
 - Retainage Amount**: The amount of retainage calculated for the invoice line as follows:
 - As standard retainage until we reach the cap and the retainage capacity of the related revenue budget line
 - As standard retainage with correction once we reach the cap or the related revenue budget line capacity is empty
 - As zero not to exceed the cap

In the pro forma invoice for application #1, as you can see on the Pro Forma Invoices (PM307000) form, we do not hit the cap, and retainage amount is calculated in the standard way: **Retainage Amount = Retainage (%) * Amount to Invoice = 5% * 415436.6 = 20771.83**.

Thus, we allocate this sum on the related revenue budget line.

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr.: 000008	Project: HOTEL2 - The Beach Hotel and Condom	Progress Billing Total: 415,436.60	Retainage (%): 5.00
Status: Closed	Customer: EQUGRP - The Equity Group Investors	Time and Material Total: 0.00	Allocated Retained Total: 20,771.83
		Tax Total: 0.00	
		Invoice Total: 415,436.60	
		Retainage Total: 20,771.83	
Description: Progress billing application #1 for HOTEL2		Amount Due: 394,664.77	

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

* Branch	Billing Item	Description	Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Allocated Retained Amount	Retainage Amount
> 0 HEADOFFICE 01	GENERAL REQUIREMENTS		4,154,366.00	0.00	10.00	415,436.60	0.00	415,436.60	10.00	20,771.83	20,771.83
0 HEADOFFICE 02	SITWORK		1,809,185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2. Open the related AR invoice by clicking the link in the **AR Ref. Nbr.** box on the **Financial Details** tab of the Pro Forma Invoices form.

Notice the **Unreleased Retainage** column on the **Document Details** tab of the Invoices and Memos (AR301000) form—it displays the retainage balance value that will be cleared when the retainage is gradually or fully released for the corresponding invoice line.

Invoices and Memos

SAVE & CLOSE RELEASE ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

Type: Invoice	Customer: EQUGRP - The Equity Group Investors	Detail Total: 394,664.77
Reference Nbr.: 000085	Terms: 30D - 30 Days	Discount Total: 0.00
Status: Open	* Due Date: 7/1/2019 <input checked="" type="checkbox"/> Apply Retainage	VAT Taxable T...
* Cash Discount: 7/1/2019 <input checked="" type="checkbox"/> Pay by Line		VAT Exempt T...
Date: 6/1/2019	Project/Contract: HOTEL2 - The Beach Hotel and Condom	Tax Total: 0.00
Post Period: 06-2019		Balance: 394,664.77
Customer Order: 000008		Amount: 394,664.77
Description: Progress billing application #1 for HOTEL2		Cash Discount: 0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS RETAINAGE APPLICATIONS COMPLIANCE

* Branch	Line Nbr.	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Retainage Amount	Unreleased Retainage	Retained Tax
> 0 HEADOFFICE	1	GENERAL REQUIREMENTS	0.00	HOUR	0.0000	415,436.60	0.000000	0.00	20,771.83	20,771.83	0.00	
0 HEADOFFICE	2	SITWORK	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00	0.00	

3. Navigate back to the **Revenue Budget** tab of the Projects (PM301000) form and notice the following columns:

- Draft Retained Amount:** The unreleased retainage amount held on all the related pro forma invoices and unreleased AR invoices that originate from the project billing.
- Retained Amount:** The unreleased retainage amount held on all the released related AR invoices that originate from the project billing.
- Total Retained Amount:** The sum of the **Draft Retained** and **Retained Amount** values.

The Beach Hotel and Condominiums							Expenses:	0.00									
SUMMARY	BALANCES	COST BUDGET	COMMITMENTS	CHANGE ORDERS	REVENUE BUDGET	INVOICES	APPROVAL DETAILS	TASKS	EMPLOYEES	CHANGE REQUESTS	UNION LOCALS						
Project Task:						Pending Invoice Amount Total:	0.00										
○	+	×	VIEW TRANSACTIONS	 	H	G	↑										
<input type="checkbox"/> <input checked="" type="checkbox"/> Schedule of Values <input type="checkbox"/> Account Group Description UOM Original Budgeted Amount Potential CO Amount Budgeted CO Amount Revised Budgeted Amount Completed (%) Pending Invoice Amount Draft Invoices Amount Actual Amount Draft Retained Amount Retained Amount Total Retained Amount																	
>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	01	REVEN...	GENERAL RE...	HOUR	4,154,366.00	0.00	0.00	4,154,366.00	80.00	0.00	0.00	3,323,492.80	0.00	166,174.64	166,174.64
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	02	REVEN...	SITEWORK	HOUR	1,809,185.00	0.00	0.00	1,809,185.00	98.00	0.00	0.00	1,773,001.30	0.00	88,650.07	88,650.07
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	03	REVEN...	CONCRETE	HOUR	8,319,840.00	0.00	0.00	8,319,840.00	50.00	0.00	0.00	4,159,920.00	0.00	207,996.00	207,996.00
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	04	REVEN...	MASONRY	HOUR	1,210,648.00	0.00	0.00	1,210,648.00	80.00	0.00	0.00	968,518.40	0.00	48,425.92	48,425.92
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	05	REVEN...	METALS	HOUR	1,901,356.00	0.00	0.00	1,901,356.00	42.00	0.00	0.00	798,569.52	0.00	39,928.48	39,928.48
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	06	REVEN...	WOODS, PLA...	HOUR	1,225,000.00	0.00	0.00	1,225,000.00	56.00	0.00	0.00	686,000.00	0.00	34,300.00	34,300.00
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	07	REVEN...	THERMALAN...	HOUR	989,355.00	0.00	0.00	989,355.00	40.00	0.00	0.00	395,742.00	0.00	19,787.10	19,787.10
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	08	REVEN...	OPENINGS	HOUR	1,638,760.00	0.00	0.00	1,638,760.00	50.00	0.00	0.00	819,380.00	0.00	40,969.00	40,969.00
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	09	REVEN...	FINISHES	HOUR	8,110,796.00	0.00	0.00	8,110,796.00	30.00	0.00	0.00	2,433,238.00	0.00	121,661.94	121,661.94
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10	REVEN...	SPECIALTIES	HOUR	1,449,500.00	0.00	0.00	1,449,500.00	44.00	0.00	0.00	637,780.00	0.00	31,889.00	31,889.00
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11	REVEN...	EQUIPMENT	HOUR	1,135,000.00	0.00	0.00	1,135,000.00	36.00	0.00	0.00	408,600.00	0.00	20,430.00	20,430.00
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13	REVEN...	SPECIAL CO...	HOUR	345,500.00	0.00	0.00	345,500.00	42.00	0.00	0.00	145,110.00	0.00	7,255.50	7,255.50
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14	REVEN...	CONVEYING...	HOUR	696,919.00	0.00	0.00	696,919.00	49.00	0.00	0.00	341,490.31	0.00	17,074.52	17,074.52
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15	REVEN...	MECHANICAL	HOUR	3,910,742.00	0.00	0.00	3,910,742.00	33.00	0.00	0.00	1,290,544.86	0.00	64,527.24	64,527.24
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16	REVEN...	ELECTRICAL	HOUR	2,818,490.00	0.00	0.00	2,818,490.00	35.00	0.00	0.00	986,471.50	0.00	49,323.58	49,323.58

You need to be careful not to confuse the allocated retained values in pro forma lines with the actual retained values displayed in the revenue budget. Right now, there is no **Draft Retained Amount** for the project because all of its AR invoices have been released so that retainage is contained in the actually **Retained Amount**.

- 4.** Review the second pro forma invoice. In application #2, we still do not hit the cap yet and the retainage amount is calculated in the standard way: **Retainage Amount = Retainage (%) * Amount to Invoice**. Thus, we allocate this sum on the related revenue budget lines.

Review the **Allocated Retained Amount** of the first line which includes the allocated retainage from this and the previous invoice. **Allocated Retained Total** includes both progress billing iterations.

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr:	000009	Project:	HOTEL2 - The Beach Hotel and Condom	Progress Billing Total:	7,219,630.64	Retainage (%):	5.00
Status:	Closed	Customer:	EQUGRP - The Equity Group Investors	Time and Material Total:	0.00	Allocated Retained Total:	381,753.36
				Tax Total:	0.00		
				Invoice Total:	7,219,630.64		
				Retainage Total:	360,981.53		
				Amount Due:	6,858,649.11		

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

Branch	Billing Item	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Allocated Retained Amount	Retainage Amount
> HEADOFFICE	01	GENERAL REQUIREMENTS	4,154,366.00	415,436.60	30.00	830,873.20	0.00	830,873.20	20.00	62,315.49	41,543.66
> HEADOFFICE	02	SITWORK	1,809,185.00	0.00	80.00	1,447,348.00	0.00	1,447,348.00	80.00	72,367.40	72,367.40
> HEADOFFICE	03	CONCRETE	8,319,840.00	0.00	42.00	3,494,332.80	0.00	3,494,332.80	42.00	174,716.64	174,716.64
> HEADOFFICE	04	MASONRY	1,210,648.00	0.00	78.00	944,305.44	0.00	944,305.44	78.00	47,215.27	47,215.27
> HEADOFFICE	05	METALS	1,901,356.00	0.00	20.00	380,271.20	0.00	380,271.20	20.00	19,013.56	19,013.56
> HEADOFFICE	06	WOODS, PLASTICS, COMPOSITES	1,225,000.00	0.00	10.00	122,500.00	0.00	122,500.00	10.00	6,125.00	6,125.00
> HEADOFFICE	07	THERMAL AND MOISTURE PROTECTION	989,355.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	08	OPENINGS	1,638,760.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	09	FINISHES	8,110,796.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	10	SPECIALTIES	1,449,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	11	EQUIPMENT	1,135,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	12	SPECIAL CONSTRUCTION	345,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	13	CONVEYING SYSTEMS	696,919.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	14	MECHANICAL	3,910,742.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	15	ELECTRICAL	2,818,490.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
> HEADOFFICE	16										

The **Retainage Amount** is calculated in the standard way there since we do not reach the cap yet. Pay special attention to **Allocated Retained Amount**. Notice how it grows for the lines from invoice to invoice.

- In application #3, review the totals. **Retainage Amount** in the header of the invoice is the sum of the **Retainage Amount** column values of this invoice, whereas **Allocated Retained Total** is the total retainage held throughout all the project applications including this one.

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS ▾ REPORTS ▾

Reference Nbr.: 000010	Project: HOTEL2 - The Beach Hotel and Condom	Progress Billing Total: 11,532,792.25	Retainage (%): 5.00
Status: Closed	Customer: EQUGRP - The Equity Group Investors	Time and Material Total: 0.00	Allocated Retained Total: 958,392.97
<input type="checkbox"/> Hold		Tax Total: 0.00	
Invoice Date: 8/1/2019		Invoice Total: 11,532,792.25	
Post Period: 08-2019		Retainage Total: 576,639.63	
Description: Progress billing application #3 for HOTEL2		Amount Due: 10,956,152.62	

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

*Branch	Billing Item	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Allocated Retained Amount	Retainage Amount
> 0 HEADOFFICE 01	GENERAL REQUIREMENTS		4,154,366.00	1,246,309.80	80.00	2,077,183.00	0.00	2,077,183.00	50.00	166,174.64	103,859.15
0 HEADOFFICE 02	SITEWORK		1,809,185.00	1,447,348.00	98.00	325,653.30	0.00	325,653.30	18.00	88,650.06	16,282.67
0 HEADOFFICE 03	CONCRETE		8,319,840.00	3,494,332.80	50.00	665,587.20	0.00	665,587.20	8.00	207,996.00	33,279.36
0 HEADOFFICE 04	MASONRY		1,210,648.00	944,305.44	80.00	24,212.96	0.00	24,212.96	2.00	48,425.92	1,210.65
0 HEADOFFICE 05	METALS		1,901,356.00	380,271.20	42.00	418,298.32	0.00	418,298.32	22.00	39,928.48	20,914.92
0 HEADOFFICE 06	WOODS, PLASTICS, COMPOSITES		1,225,000.00	122,500.00	56.00	563,500.00	0.00	563,500.00	46.00	34,300.00	28,175.00
0 HEADOFFICE 07	THERMAL AND MOISTURE PROTECTION		989,355.00	0.00	40.00	395,742.00	0.00	395,742.00	40.00	19,787.10	19,787.10
0 HEADOFFICE 08	OPENINGS		1,638,760.00	0.00	50.00	819,380.00	0.00	819,380.00	50.00	40,969.00	40,969.00
0 HEADOFFICE 09	FINISHES		8,110,796.00	0.00	30.00	2,433,238.80	0.00	2,433,238.80	30.00	121,661.94	121,661.94
0 HEADOFFICE 10	SPECIALTIES		1,449,500.00	0.00	44.00	637,780.00	0.00	637,780.00	44.00	31,889.00	31,889.00
0 HEADOFFICE 11	EQUIPMENT		1,135,000.00	0.00	36.00	408,600.00	0.00	408,600.00	36.00	20,430.00	20,430.00
0 HEADOFFICE 13	SPECIAL CONSTRUCTION		345,500.00	0.00	42.00	145,110.00	0.00	145,110.00	42.00	7,255.50	7,255.50
0 HEADOFFICE 14	CONVEYING SYSTEMS		696,919.00	0.00	49.00	341,490.31	0.00	341,490.31	49.00	17,074.52	17,074.52
0 HEADOFFICE 15	MECHANICAL		3,910,742.00	0.00	33.00	1,290,544.86	0.00	1,290,544.86	33.00	64,527.24	64,527.24
0 HEADOFFICE 16	ELECTRICAL		2,818,490.00	0.00	35.00	986,471.50	0.00	986,471.50	35.00	49,323.57	49,323.58

6. Review the settings on the **Summary** tab of the Projects (PM301000) form for the HOTEL2 project. Notice the following:

- The contract **Completed (%)** is 48.26 %. However, we have not reached the cap yet, we can still hold more retainage for the project.
- Total Retained Amount** shows how much retainage we currently hold for the project.

RETAINAGE

Retainage Mode:	Contract Cap
<input checked="" type="checkbox"/> Include CO	
Contract Total:	39,715,457.00
Completed (%):	48.26
Total Retained Amount:	958,392.99
Retainage (%):	5.00
Cap (%):	50.00
	<input type="checkbox"/> Stepped
	992,886.42

7. Run one more progress billing iteration by doing the following:

- a. Manually increase the values in the **Completed (%)** or **Pending Invoice Amount** column on the **Revenue Budget** tab of the Projects (PM301000) form as indicated in the table below.

Schedule of Values	Account Group	Description	Revised Budgeted Amount	Completed (%)	Pending Invoice Amount	Actual Amount	Draft Retained Amount	Retained Amount	Total Retained Amount
05	REV-ENUE	METALS	1 901 356,00	66,00	456 325,44	798 569,52	0,00	39 928,48	39 928,48
06	REV-ENUE	WOODS, PLASTICS, COMPOSITES	1 225 000,00	75,00	232 750,00	686 000,00	0,00	34 300,00	34 300,00
07	REV-ENUE	THERMAL AND MOISTURE PROTECTION	989 355,00	80,00	395 742,00	395 742,00	0,00	19 787,10	19 787,10
08	REV-ENUE	OPENINGS	1 638 760,00	75,00	409 690,00	819 380,00	0,00	40 969,00	40 969,00

- b. Click **Run Project Billing** on the form toolbar of the Projects (PM301000) form to generate a new pro forma invoice that you can review on the Pro Forma Invoices (PM307000) form.
- 8. Review the generated pro forma invoice and notice how the **Retainage Amount** is calculated this time.

The retainage amount is no longer equal to the standard retainage amount, which is calculated as Amount to Invoice * Retainage (%). If you also take a look at the project completion percent, you will see that we have already reached 50% of contract completion and in order not to exceed the retainage cap amount, the system has performed a special retainage calculation with a correction subtracted from the standard retainage amount ($\text{Retainage Amount} = \text{Amount to Invoice} * \text{Retainage \%} - \text{Correction}$). As for **Allocated Retained Amount**, the reallocation formula is used so that this value is based on the weight of each invoice line and on the line capacity to have retainage.

PRO FORMA INVOICES											NOTES	ACTIVITIES	FILES				
Reference Nbr.: <input type="text" value="000013"/> <input type="button" value="SEARCH"/>			Project: <input type="text" value="HOTEL2 - The Beach Hotel and Condom"/>	Customer: <input type="text" value="EQUGRP - The Equity Group Investors"/>	Progress Billing Total: <input type="text" value="1,494,507.44"/>	Retainage (%): <input type="text" value="5.00"/>											
Status: <input type="text" value="On Hold"/>	Time and Material Total: <input type="text" value="0.00"/>	Tax Total: <input type="text" value="0.00"/>	Allocated Retained Total: <input type="text" value="992,886.42"/>														
* Invoice Date: <input type="text" value="9/1/2019"/>	Invoice Total: <input type="text" value="1,494,507.44"/>	Retainage Total: <input type="text" value="34,493.43"/>															
* Post Period: <input type="text" value="09-2019"/> <input type="button" value="SEARCH"/>	Amount Due: <input type="text" value="1,460,014.01"/>																
Description: <input type="text" value="Invoice for HOTEL2"/>																	
PROGRESS BILLING		TIME AND MATERIAL	TAX DETAILS	FINANCIAL DETAILS	APPROVAL DETAILS	ADDRESS DETAILS											
<input type="button" value="New"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>	<input type="button" value="Print"/>	<input type="button" value="Print"/>	<input type="button" value="Print"/>	<input type="button" value="Print"/>											
Branch	Billing Item	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Allocated Retained Amount	Retainage Amount						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 01	GENERAL REQUIREMENTS	4,154,366.00	3,323,492.80	80.00	0.00	0.00	0.00	0.00	166,174.64	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 02	SITEWORK	1,809,185.00	1,773,001.30	98.00	0.00	0.00	0.00	0.00	88,650.07	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 03	CONCRETE	8,319,840.00	4,159,920.00	50.00	0.00	0.00	0.00	0.00	207,996.00	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 04	MASONRY	1,210,648.00	968,518.40	80.00	0.00	0.00	0.00	0.00	48,425.92	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 05	METALS	1,901,356.00	798,569.52	66.00	456,325.44	0.00	456,325.44	24.00	50,460.53	10,532.05						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 06	WOODS, PLASTICS, COMPOSITES	1,225,000.00	686,000.00	75.00	232,750.00	0.00	232,750.00	19.00	39,671.90	5,371.90						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 07	THERMAL AND MOISTURE PROTECTION	989,355.00	395,742.00	80.00	395,742.00	0.00	395,742.00	40.00	28,920.88	9,133.78						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 08	OPENINGS	1,638,760.00	819,380.00	75.00	409,690.00	0.00	409,690.00	25.00	50,424.70	9,455.70						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 09	FINISHES	8,110,796.00	2,433,238.80	30.00	0.00	0.00	0.00	0.00	121,661.94	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 10	SPECIALTIES	1,449,500.00	637,780.00	44.00	0.00	0.00	0.00	0.00	31,889.00	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 11	EQUIPMENT	1,135,000.00	408,600.00	36.00	0.00	0.00	0.00	0.00	20,430.00	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 13	SPECIAL CONSTRUCTION	345,500.00	145,110.00	42.00	0.00	0.00	0.00	0.00	7,255.50	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 14	CONVEYING SYSTEMS	696,919.00	341,490.31	49.00	0.00	0.00	0.00	0.00	17,074.52	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 15	MECHANICAL	3,910,742.00	1,290,544.86	33.00	0.00	0.00	0.00	0.00	64,527.24	0.00						
<input type="checkbox"/> HEADOFFICE	<input type="checkbox"/> 16	ELECTRICAL	2,818,490.00	986,471.50	35.00	0.00	0.00	0.00	0.00	49,323.58	0.00						

On the Projects form, **Total Retained Amount** for the *HOTEL2* project is now equal to the cap amount, which is the maximum retainage amount that can be held for the project at the moment of time.

RETAINAGE	<input type="text" value="Contract Cap"/>	<input checked="" type="checkbox"/> Include CO
Contract Total:	39,715,457.00	
Completed (%):	52.03	
Total Retained Amount:	992,886.42	
Retainage (%):	5.00	<input type="checkbox"/> Stepped
Cap (%):	50.00	992,886.42

9. On the Projects form, review the settings on the **Revenue Budget** tab and see that we have **Draft Retained Amount** in it now gathered from the latest pro forma.

Projects														NOTES	FILES	NOT	
SAVE & CLOSE		REVERSE	+	DELETE	K	<	>	RUN PROJECT BILLING	CREATE CHANGE REQUEST	CREATE CHANGE ORDER	ACTIONS	INQUIRIES	REPORTS				
* Project ID:	HOTEL2			* Status:	Active			Assets:	0.00								
Customer:	EQUGRP - The Equity Group Investor			Template:				Liabilities:	0.00								
* Description:	The Beach Hotel and Condominiums							Income:	19,167,859.49								
SUMMARY	TASKS	REVENUE BUDGET		COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT				
Project Task:					Group by Task	Pending Invoice Amount Total:		0.00									
○ + × VIEW TRANSACTIONS ⟳ ☒ ↑																	
#	Task	* Schedule of Values	* Account Group	Description	Original Budgeted Quantity	UOM	Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Budgeted CO Quantity	Budgeted CO Amount	Draft Invoices Amount	Actual Quantity	Actual Amount
>	01	REVENUE	GENERAL REQUIREMENTS	0.00	HOUR	0.0000	4,154,366.00	0.00	25,000,000.00	0.00	4,154,366.00	0.00	0.00	0.00	0.00	0.00	3,323,492.80
	02	REVENUE	SITEWORK	0.00	HOUR	0.0000	1,809,185.00	0.00	0.00	0.00	1,809,185.00	0.00	0.00	0.00	0.00	0.00	1,773,001.30
	03	REVENUE	CONCRETE	0.00	HOUR	0.0000	8,319,840.00	0.00	0.00	0.00	8,319,840.00	0.00	0.00	0.00	0.00	0.00	4,159,920.00
	04	REVENUE	MASONRY	0.00	HOUR	0.0000	1,210,648.00	0.00	0.00	0.00	1,210,648.00	0.00	0.00	0.00	0.00	0.00	968,518.40
	05	REVENUE	METALS	0.00	HOUR	0.0000	1,901,356.00	0.00	0.00	0.00	1,901,356.00	0.00	0.00	0.00	0.00	0.00	798,569.52
	06	REVENUE	WOODS, PLASTICS, COM...	0.00	HOUR	0.0000	1,225,000.00	0.00	0.00	0.00	1,225,000.00	0.00	0.00	0.00	0.00	0.00	686,000.00
	07	REVENUE	THERMAL AND MOISTURE...	0.00	HOUR	0.0000	989,355.00	0.00	0.00	0.00	989,355.00	0.00	0.00	0.00	0.00	0.00	395,742.00
	08	REVENUE	OPENINGS	0.00	HOUR	0.0000	1,638,760.00	0.00	0.00	0.00	1,638,760.00	0.00	0.00	0.00	0.00	0.00	819,380.00
	09	REVENUE	FINISHES	0.00	HOUR	0.0000	8,110,796.00	0.00	0.00	0.00	8,110,796.00	0.00	0.00	0.00	0.00	0.00	2,433,238.80
	10	REVENUE	SPECIALTIES	0.00	HOUR	0.0000	1,449,500.00	0.00	0.00	0.00	1,449,500.00	0.00	0.00	0.00	0.00	0.00	637,780.00
	11	REVENUE	EQUIPMENT	0.00	HOUR	0.0000	1,135,000.00	0.00	0.00	0.00	1,135,000.00	0.00	0.00	0.00	0.00	0.00	408,600.00
	13	REVENUE	SPECIAL CONSTRUCTION	0.00	HOUR	0.0000	345,500.00	0.00	0.00	0.00	345,500.00	0.00	0.00	0.00	0.00	0.00	145,110.00
	14	REVENUE	CONVEYING SYSTEMS	0.00	HOUR	0.0000	696,919.00	0.00	0.00	0.00	696,919.00	0.00	0.00	0.00	0.00	0.00	341,490.31
	15	REVENUE	MECHANICAL	0.00	HOUR	0.0000	3,910,742.00	0.00	0.00	0.00	3,910,742.00	0.00	0.00	0.00	0.00	0.00	1,290,544.86
	16	REVENUE	ELECTRICAL	0.00	HOUR	0.0000	2,818,490.00	0.00	0.00	0.00	2,818,490.00	0.00	0.00	0.00	0.00	0.00	986,471.00

10. On the Pro Forma Invoice form, clear the **Hold** check box for the created pro forma invoice. Approve and release the pro forma invoice and the related AR invoice (the link to which you can find on the **Financial Details** tab of the Pro Forma Invoices form, as shown in the following screenshot) to make the drafts flow into actuals.

Pro Forma Invoices

←	SAVE & CLOSE	REVERSE	↻	DELETE	K	<	>	RUN	RELEASE	ACTIONS	REPORTS	✓	00:00:03
Reference Nbr.:	000013	Project:	HOTEL2 - The Beach Hotel and Condom	Progress Billing Total:	1,494,507.44								
Status:	Closed	Customer:	EQUGRP - The Equity Group Investors	Time and Material Total:	0.00								
	<input checked="" type="checkbox"/> Hold			Tax Total:	0.00								
Invoice Date:	9/1/2019			Invoice Total:	1,494,507.44								
Post Period:	09-2019			Retainage Total:	34,493.43								
Description:	Invoice for HOTEL2			Amount Due:	1,460,014.01								
PROGRESS BILLING	TIME AND MATERIAL	TAX DETAILS	FINANCIAL DETAILS	APPROVAL DETAILS	ADDRESS DETAILS								
INVOICE SETTINGS													
AR Doc. Type:	Invoice												
AR Ref. Nbr.:	000090												
Branch:	HEADOFFICE - SweetLife Head Office ar												
Customer Tax Zone:													
Terms:	30D - 30 Days												
Due Date:	10/1/2019												
Cash Discount Date:	10/1/2019												

- 11.** Notice the **Unreleased Retainage** column on the **Document Details** tab of the Invoices and Memos form. The values in this column are originally equal to the exact **Retainage Amount** values of the corresponding invoice lines (which in our configuration are inherited from the pro forma invoice).

Invoices and Memos

SAVE & CLOSE RELEASE ACTIONS ▾ INQUIRIES ▾ REPORTS ▾ 00:00:04

Type:	Invoice	Customer:	EQUGRP - The Equity Group Investors	Detail Total:	1,460,014.01
Reference Nbr.:	000090	Terms:	30D - 30 Days	Discount Total:	0.00
Status:	Open	* Due Date:	10/1/2019	VAT Taxable T...	0.00
	<input type="checkbox"/> Hold	* Cash Discount:	10/1/2019	<input checked="" type="checkbox"/> Pay by Line	VAT Exempt T...
Date:	9/1/2019	Project/Contract:	HOTEL2 - The Beach Hotel and Condom	Tax Total:	0.00
Post Period:	09-2019			Balance:	1,460,014.01
Customer Order:	000013			Amount:	1,460,014.01
Description:	Invoice for HOTEL2			Cash Discount:	0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS RETAINAGE APPLICATIONS COMPLIANCE

VIEW SCHEDULE

Branch	Line Account Nbr. Group/Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Retainage Amount	Unreleased Retainage
> HEADOFFICE	1	GENERAL REQUIREMENTS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	2	SITEWORK	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	3	CONCRETE	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	4	MASONRY	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	5	METALS	0.00	HOUR	0.0000	456,325.44	0.000000	0.00	10,532.05	10,532.05
HEADOFFICE	6	WOODS, PLASTICS, COMPOSITES	0.00	HOUR	0.0000	232,750.00	0.000000	0.00	5,371.90	5,371.90
HEADOFFICE	7	THERMAL AND MOISTURE PROTECTION	0.00	HOUR	0.0000	395,742.00	0.000000	0.00	9,133.78	9,133.78
HEADOFFICE	8	OPENINGS	0.00	HOUR	0.0000	409,690.00	0.000000	0.00	9,455.70	9,455.70
HEADOFFICE	9	FINISHES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	10	SPECIALTIES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	11	EQUIPMENT	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	12	SPECIAL CONSTRUCTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	13	CONVEYING SYSTEMS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	14	MECHANICAL	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
HEADOFFICE	15	ELECTRICAL	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00

- 12.** Verify the settings on the **Revenue Budget** tab of the Projects form, and see how **Draft Retained Amount** has flown into **Retained Amount**.

Projects

SAVE & CLOSE RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE ORDER ACTIONS ▾ INQUIRIES ▾ REPORTS ▾

* Project ID:	HOTEL2	* Status:	Active	Assets:	0.00
Customer:	EQUGRP - The Equity Group Investor			Liabilities:	0.00
Template:				Income:	20,662,366.93
* Description:	The Beach Hotel and Condominiums			Expenses:	0.00

SUMMARY TASKS REVENUE BUDGET COST BUDGET BALANCES COMMITMENTS INVOICES CHANGE ORDERS CHANGE REQUESTS UNION LOCALS ACTIVITY HISTORY EMPLOYEES EQUIPMENT SETTINGS

Project Task: Group by Task Pending Invoice Amount Total: 0.00

VIEW TRANSACTIONS

Unit Rate	Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Budgeted CO Quantity	Budgeted CO Amount	Draft Invoices Amount	Actual Quantity	Actual Amount	Completed (%)	Pending Invoice Amount	Performance (%)	Tax Category	All Records
0.0000	4,154,366.00	0.00	25,000,000.00	0.00	4,154,366.00	0.00	0.00	0.00	3,323,492.80	80.00	0.00	80.00	0.00	0.00	0.00 166,174.64 166,174.64
0.0000	1,809,185.00	0.00	0.00	0.00	1,809,185.00	0.00	0.00	0.00	1,773,001.30	98.00	0.00	98.00	0.00	0.00	0.00 88,650.07 88,650.07
0.0000	8,319,840.00	0.00	0.00	0.00	8,319,840.00	0.00	0.00	0.00	4,159,920.00	50.00	0.00	50.00	0.00	0.00	0.00 207,996.00 207,996.00
0.0000	1,210,648.00	0.00	0.00	0.00	1,210,648.00	0.00	0.00	0.00	968,518.40	80.00	0.00	80.00	0.00	0.00	0.00 48,425.92 48,425.92
0.0000	1,901,356.00	0.00	0.00	0.00	1,901,356.00	0.00	0.00	0.00	1,254,894.96	66.00	0.00	66.00	0.00	0.00	0.00 50,460.53 50,460.53
0.0000	1,225,000.00	0.00	0.00	0.00	1,225,000.00	0.00	0.00	0.00	918,750.00	75.00	0.00	75.00	0.00	0.00	0.00 39,671.90 39,671.90
0.0000	989,355.00	0.00	0.00	0.00	989,355.00	0.00	0.00	0.00	791,484.00	80.00	0.00	80.00	0.00	0.00	0.00 28,920.88 28,920.88
0.0000	1,638,760.00	0.00	0.00	0.00	1,638,760.00	0.00	0.00	0.00	1,229,070.00	75.00	0.00	75.00	0.00	0.00	0.00 50,424.70 50,424.70
0.0000	8,110,796.00	0.00	0.00	0.00	8,110,796.00	0.00	0.00	0.00	2,433,238.80	30.00	0.00	30.00	0.00	0.00	0.00 121,661.94 121,661.94
0.0000	1,449,500.00	0.00	0.00	0.00	1,449,500.00	0.00	0.00	0.00	637,780.00	44.00	0.00	44.00	0.00	0.00	0.00 31,889.00 31,889.00
0.0000	1,135,000.00	0.00	0.00	0.00	1,135,000.00	0.00	0.00	0.00	408,600.00	36.00	0.00	36.00	0.00	0.00	0.00 20,430.00 20,430.00
0.0000	345,500.00	0.00	0.00	0.00	345,500.00	0.00	0.00	0.00	145,110.00	42.00	0.00	42.00	0.00	0.00	0.00 7,255.50 7,255.50
0.0000	696,919.00	0.00	0.00	0.00	696,919.00	0.00	0.00	0.00	341,490.31	49.00	0.00	49.00	0.00	0.00	0.00 17,074.52 17,074.52
0.0000	3,910,742.00	0.00	0.00	0.00	3,910,742.00	0.00	0.00	0.00	1,290,544.86	33.00	0.00	33.00	0.00	0.00	0.00 64,527.24 64,527.24
0.0000	2,818,490.00	0.00	0.00	0.00	2,818,490.00	0.00	0.00	0.00	986,471.50	35.00	0.00	35.00	0.00	0.00	0.00 49,323.58 49,323.58

- 13.** We have reached the cap, and this means that we will calculate no more retainage for the project.

For the revenue budget lines, change the values in the **Completed (%)** column as indicated in the table below (to create provisioning for yet another progress billing iteration):

Schedule of Values	Ac-count Group	Description	Revised Budgeted Amount	Com-pleted (%)	Pend-ing In-voice Amount	Act-ual Amour	Draft Re-tained Amour	Re-tained Amour	Total Re-tained Amount
11	REV-ENUE	EQUIPMENT	1 135 000,00	48,00	136 200,00	408 600,00	0,00	20 430,00	20 430,00
13	REV-ENUE	SPECIAL CONSTRUC-TION	345 500,00	55,00	44 915,00	145 110,00	0,00	7 255,50	7 255,50
14	REV-ENUE	CONVEYING SYSTEMS	696 919,00	60,00	76 661,09	341 490,31	0,00	17 074,52	17 074,52
15	REV-ENUE	MECHANICAL	3 910 742,00	88,00	2 150 908,10	1 290 544,86	0,00	64 527,24	64 527,24
16	REV-ENUE	ELECTRICAL	2 818 490,00	90,00	1 550 169,50	986 471,50	0,00	49 323,58	49 323,58

- 14.** Click **Run Project Billing** on the form toolbar, and then review the resulting pro forma invoice.

Make sure that no retainage is calculated because we have already reached the cap.

Allocated Retained Total = Cap Amount. We can hold retainage for a project in amount not more than Cap Amount. However, reallocation of Allocated Retained Amount still takes place based on the lines' weights in a pro forma.

Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS REPORTS

Reference Nbr:	000014	Project:	HOTEL2 - The Beach Hotel and Condom	Progress Billing Total:	3,958,853.69	Retainage (%):	5.00
Status:	On Hold	Customer:	EQUGRP - The Equity Group Investors	Time and Material Total:	0.00	Allocated Retained Total:	992,886.42
<input checked="" type="checkbox"/> Hold				Tax Total:	0.00		
* Invoice Date:	10/1/2019			Invoice Total:	3,958,853.69		
* Post Period:	10-2019			Retainage Total:	0.00		
Description:	Invoice for HOTEL2			Amount Due:	3,958,853.69		

PROGRESS BILLING TIME AND MATERIAL TAX DETAILS FINANCIAL DETAILS APPROVAL DETAILS ADDRESS DETAILS

Branch	Billing Item	Description	Revised Budgeted Amount	Previously Invoiced	Total Completed (%)	Amount	Stored Material	Amount to Invoice	Current Invoiced (%)	Allocated Retained Amount	Retainage Amount
> HEADOFFICE	01	GENERAL REQUIREMENTS	4,154,366.00	3,323,492.80	80.00	0.00	0.00	0.00	0.00	166,174.65	0.00
HEADOFFICE	02	SITEWORK	1,809,185.00	1,773,001.30	98.00	0.00	0.00	0.00	0.00	88,650.07	0.00
HEADOFFICE	03	CONCRETE	8,319,840.00	4,159,920.00	50.00	0.00	0.00	0.00	0.00	207,996.00	0.00
HEADOFFICE	04	MASONRY	1,210,648.00	968,518.40	80.00	0.00	0.00	0.00	0.00	48,425.92	0.00
HEADOFFICE	05	METALS	1,901,356.00	1,254,894.96	66.00	0.00	0.00	0.00	0.00	50,460.53	0.00
HEADOFFICE	06	WOODS, PLASTICS, COMPOSITES	1,225,000.00	918,750.00	75.00	0.00	0.00	0.00	0.00	39,671.90	0.00
HEADOFFICE	07	THERMALAND MOISTURE PROTECTION	989,355.00	791,484.00	80.00	0.00	0.00	0.00	0.00	28,920.88	0.00
HEADOFFICE	08	OPENINGS	1,638,760.00	1,229,070.00	75.00	0.00	0.00	0.00	0.00	50,424.70	0.00
HEADOFFICE	09	FINISHES	8,110,796.00	2,433,238.00	30.00	0.00	0.00	0.00	0.00	121,661.94	0.00
HEADOFFICE	10	SPECIALTIES	1,449,500.00	637,780.00	44.00	0.00	0.00	0.00	0.00	31,889.00	0.00
HEADOFFICE	11	EQUIPMENT	1,135,000.00	408,600.00	48.00	136,200.00	0.00	136,200.00	12.00	20,430.00	0.00
HEADOFFICE	13	SPECIAL CONSTRUCTION	345,500.00	145,110.00	55.00	44,915.00	0.00	44,915.00	13.00	7,255.50	0.00
HEADOFFICE	14	CONVEYING SYSTEMS	696,919.00	341,490.31	60.00	76,661.09	0.00	76,661.09	11.00	17,074.52	0.00
HEADOFFICE	15	MECHANICAL	3,910,742.00	1,290,544.86	88.00	2,150,908.10	0.00	2,150,908.10	55.00	64,527.24	0.00
HEADOFFICE	16	ELECTRICAL	2,818,490.00	986,471.50	90.00	1,550,169.50	0.00	1,550,169.50	55.00	49,323.58	0.00

15. Clear the **Hold** check box, then approve and release the pro forma and the related AR invoice. Notice that no retainage is included in the AR invoice.

Invoices and Memos

SAVE & CLOSE +

Type:	Invoice	Customer:	EQUGRP - The Equity Group Investors		Detail Total:	3,958,853.69	
Reference Nbr.:	000091	Terms:	30D - 30 Days		Discount Total:	0.00	
Status:	Open	* Due Date:	10/31/2019		VAT Taxable T...	0.00	
	<input type="checkbox"/> Hold	* Cash Discount:	10/31/2019	<input checked="" type="checkbox"/> Pay by Line	VAT Exempt T...	0.00	
Date:	10/1/2019	Project/Contract:	HOTEL2 - The Beach Hotel and Condom		Tax Total:	0.00	
Post Period:	10-2019				Balance:	3,958,853.69	
Customer Order:	000014				Amount:	3,958,853.69	
Description:	Invoice for HOTEL2					Cash Discount:	0.00

DOCUMENT DETAILS FINANCIAL DETAILS ADDRESS DETAILS TAX DETAILS APPROVAL DETAILS APPLICATIONS COMPLIAN

Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price	Discount Percent	Discount Amount	Retainag Amount	Amount
GENERAL REQUIREMENTS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
SITEWORK	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
CONCRETE	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
MASONRY	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
METALS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
WOODS, PLASTICS, COMPOSITES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
THERMAL AND MOISTURE PROTECTION	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
OPENINGS	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
FINISHES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
SPECIALTIES	0.00	HOUR	0.0000	0.00	0.000000	0.00	0.00	0.00
EQUIPMENT	0.00	HOUR	0.0000	136,200.00	0.000000	0.00	0.00	136,200.00
SPECIAL CONSTRUCTION	0.00	HOUR	0.0000	44,915.00	0.000000	0.00	0.00	44,915.00
CONVEYING SYSTEMS	0.00	HOUR	0.0000	76,661.09	0.000000	0.00	0.00	76,661.09
MECHANICAL	0.00	HOUR	0.0000	2,150,908.10	0.000000	0.00	0.00	2,150,908.10
ELECTRICAL	0.00	HOUR	0.0000	1,550,169.50	0.000000	0.00	0.00	1,550,169.50

16. Take a look at the project completion and total retained values. **Total Retained Amount** = Cap Amount, which means that we can hold no more retainage for the project.

RETAINAGE

Retainage Mode:	Contract Cap
<input checked="" type="checkbox"/> Include CO	
Contract Total:	39,715,457.00
Completed (%):	61.99
Total Retained Amount:	992,886.42
Retainage (%):	5.00 <input type="checkbox"/> Stepped
Cap (%):	50.00 992,886.42

- 17.** Release an existing change order for the *HOTEL2* project on the Change Orders (PM308000) form to increase the **Contract Total** since we have the **Include CO** check box selected in the **Retainage** section on the **Summary** tab of the Projects form for the project, and thus increase our Cap Amount and decrease our contract **Completed (%)**.

Change Orders ☆

Reference Nbr.	Status	Class ID	Customer ID	Project ID	Description	Revenue Change Nbr.	Change Date
000008	Closed	EXT	ITALIAN01	ITALIAN4	Additional costs and revenue for the Italian ...	0001	12/25/2019
000007	Closed	INT	ITALIAN01	ITALIAN4	Extra costs	N/A	12/24/2019
000006	Closed	EXT	ITALIAN01	ITALIAN3	Additional costs and revenue for the Italian ...	0001	12/19/2019
000005	Closed	INT	ITALIAN01	ITALIAN3	Extra costs	N/A	12/19/2019
000004	Open	EXT	EQUGRP	HOTEL2	Additional income expected	0001	3/1/2019
000003	Open	EXT	EQUGRP	HOTEL	Additional costs and revenue for the Hotel ...	0001	3/1/2019
000002	Closed	EXT	ITALIAN01	ITALIAN	Additional costs and revenue for the Italian ...	0001	3/1/2019
000001	Closed	INT	ITALIAN01	ITALIAN	Extra costs	N/A	3/1/2019

We are now below the cap and new retainage will be generated in the next invoice.

RETAINAGE

Retainage Mode:	Contract Cap
<input checked="" type="checkbox"/> Include CO	
Contract Total:	64,715,457.00
Completed (%):	38.05
Total Retained Amount:	992,886.42
Retainage (%):	5.00
Cap (%):	50.00
	<input type="checkbox"/> Stepped
	1,617,886.42

- 18.** On the **Revenue Budget** tab of the Projects form, change the**Completed (%)** values for the revenue budget lines as follows (to create provisioning for a yet another progress billing iteration):

Schedule of Values	Account Group	Description	Revised Bud- geted Amount	Completed (%)
11	REVENUE	EQUIPMENT	1 135 000,00	89,00
13	REVENUE	SPECIAL CONSTRUCTION	345 500,00	70,00
14	REVENUE	CONVEYING SYSTEMS	696 919,00	90,00
15	REVENUE	MECHANICAL	3 910 742,00	95,00

Schedule of Values	Account Group	Description	Revised Budgeted Amount	Completed (%)
16	REVENUE	ELECTRICAL	2 818 490,00	100,00

- 19.** Click **Run Project Billing** on the form toolbar, and then review the generated pro forma invoice.

Notice how the new retainage amount is calculated in the pro forma invoice. However, with this pro forma invoice, we reach the new cap (affected by the change order release) and the next pro forma invoice will not have any more retainage amount.

The screenshot shows the 'RETAINAGE' dialog box with the following settings:

- Retainage Mode: Contract Cap
- Include CO
- Contract Total: 64,715,457.00
- Completed (%): 70.93
- Total Retained Amount: 1,617,886.42
- Retainage (%): 5.00 Stepped
- Cap (%): 50.00 1,617,886.42

- 20.** Clear the **Hold** check box, and then approve (if needed) and release the generated pro forma invoice and its related AR invoice.
- 21.** Complete the project billing by specifying 100% of completion for all the revenue budget lines and running project billing to generate the final pro forma invoice. No new retainage is calculated.
- 22.** Clear the **Hold** check box, then approve and release the generated pro forma invoice and its related AR invoice.

Now that the job is finished, you are ready to bill the retainage amount to the customer.

- 23.** Click **Release Retainage** on the **Invoices** tab of the Projects (PM301000) form.

Projects

← SAVE & CLOSE ⌂ + ⌂ K ⌂ > ⌂ RUN PROJECT BILLING CREATE CHANGE REQUEST CREATE CHANGE

* Project ID:	HOTEL2	* Status:	Active	Assets:	0.00			
Customer:	EQUGRP - The Equity Group Investor	Hold		Liabilities:	0.00			
Template:				Income:	64,715,457.00			
* Description:	The Beach Hotel and Condominiums			Expenses:	0.00			
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS
<input type="button" value="RELEASE RETAINAGE"/> <input type="button" value="H"/> <input type="button" value="X"/>								
Pro Forma Date	Pro Forma Reference Nbr.	Description	Status	Invoice Total	Currency	AR Doc. Type	AR Reference Nbr.	
6/1/2019	000008	Progress billing application #1 for HOTEL2	Closed	415,436.60	USD	Invoice	000085	
7/1/2019	000009	Progress billing application #2 for HOTEL2	Closed	7,219,630.64	USD	Invoice	000086	
8/1/2019	000010	Progress billing application #3 for HOTEL2	Closed	11,532,792.25	USD	Invoice	000087	

24. Release retainage for Task 01.

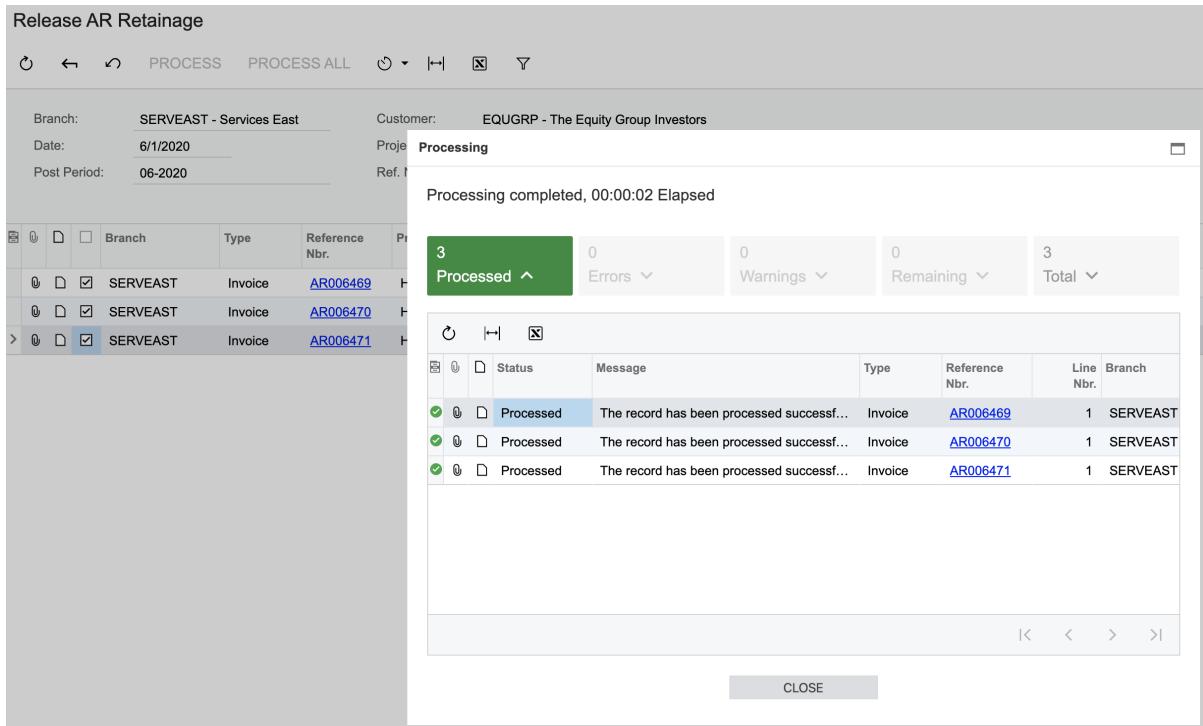
For convenience, you can use the filters on the **Release AR Retainage (AR510000)** form that opens. See the screenshot below for details.

Release AR Retainage

← PROCESS **PROCESS ALL** CLOSE ⌂ H X

Branch:	HEADOFFICE - SweetLife Hc	Cost Code:									
* Date:	1/13/2020	Inventory ID:									
* Post Period:	01-2020	Ref. Nbr.:									
Customer:	EQUGRP - The Equity Group	Show Lines with Open Balance	<input checked="" type="checkbox"/>								
Project:	HOTEL2 - The Beach Hotel a	Retainage Percent:	100.000000								
Project Task:	01 - GENERAL REQUIREME	Retainage to Release:	0.00								
Account Group:											
Branch	Type	Reference Nbr.	Customer	Line Nbr.	Percent to Release	Retainage to Release	Unreleased Retainage	Date	Total Amount	Project	Description
HEADOFFICE	Invoice	000085	EQUGRP	1	100.000000	20,771.83	0.00	6/1/2019	415,436.60	HOTEL2	Progress billing application #1 for HOTEL2
HEADOFFICE	Invoice	000086	EQUGRP	1	100.000000	41,543.66	0.00	7/1/2019	830,873.20	HOTEL2	Progress billing application #2 for HOTEL2
HEADOFFICE	Invoice	000087	EQUGRP	1	100.000000	103,859.15	0.00	8/1/2019	2,077,183.00	HOTEL2	Progress billing application #3 for HOTEL2
HEADOFFICE	Invoice	000092	EQUGRP	1	100.000000	587,354.91	0.00	11/1/2019	20,000,000.00	HOTEL2	Invoice for HOTEL2

25. Click **Process All** on the form toolbar. As a result, four retainage invoices are generated.



26. See how retainage invoices are marked on the **Invoices** tab of the Projects (PM301000) form.

Projects								NOTES	FILES	NOTIFICATIONS	TOOLS	
								RUN PROJECT BILLING	CREATE CHANGE REQUEST	CREATE CHANGE ORDER		
ACTIONS ▾ INQUIRIES ▾ REPORTS ▾												
* Project ID:	HOTEL2	* Status:	Active	Assets:	0.00	Liabilities:	0.00	Income:	64,715,457.00	Expenses:	0.00	
Customer:	EQUGRP - The Equity Group Investor	Hold			<th></th> <td><th></th><td><th></th><th></th><th></th></td></td>		<th></th> <td><th></th><th></th><th></th></td>		<th></th> <th></th> <th></th>			
Template:					<th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
* Description:	The Beach Hotel and Condominiums				<th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS				
RELEASE RETAINAGE						All Records						
Doc. Description	AR Doc. Orig. Amount	Original Retainage	AR Doc. Total Amount	Open AR Balance	Currency	AR Doc. Status	Unreleased Retainage	Retainage Invoice	Original Document			
gress billing application #1 for HOTEL2	394,664.77	20,771.83	415,436.60	394,664.77	USD	Open	20,771.83	<input type="checkbox"/>				
gress billing application #2 for HOTEL2	6,858,649.11	360,981.53	7,219,630.64	6,858,649.11	USD	Open	360,981.53	<input type="checkbox"/>				
gress billing application #3 for HOTEL2	10,956,152.62	576,639.63	11,532,792.25	10,956,152.62	USD	Open	576,639.63	<input type="checkbox"/>				
oice for HOTEL2	1,460,014.01	34,493.43	1,494,507.44	1,460,014.01	USD	Open	34,493.43	<input type="checkbox"/>				
oice for HOTEL2	3,958,853.69	0.00	3,958,853.69	3,958,853.69	USD	Open	0.00	<input type="checkbox"/>				
oice for HOTEL2	20,656,851.64	625,000.00	21,281,851.64	20,656,851.64	USD	Open	625,000.00	<input type="checkbox"/>				
oice for HOTEL2	18,812,384.74	0.00	18,812,384.74	18,812,384.74	USD	Open	0.00	<input type="checkbox"/>				
gress billing application #1 for HOTEL2	20,771.83	0.00	20,771.83	20,771.83	USD	On Hold	0.00	<input checked="" type="checkbox"/>	000085			
gress billing application #2 for HOTEL2	41,543.66	0.00	41,543.66	41,543.66	USD	On Hold	0.00	<input checked="" type="checkbox"/>	000086			
gress billing application #3 for HOTEL2	103,859.15	0.00	103,859.15	103,859.15	USD	On Hold	0.00	<input checked="" type="checkbox"/>	000087			
oice for HOTEL2	587,354.91	0.00	587,354.91	587,354.91	USD	On Hold	0.00	<input checked="" type="checkbox"/>	000092			

27. Also, see how retainage invoices are marked on the Invoices and Memos form.

Invoices and Memos

The screenshot shows the 'Invoices and Memos' screen with the following details:

- Type: Invoice
- Customer: EQUGRP - The Equity Group Investors
- Detail Total: 20,771.83
- Reference Nbr.: 000094
- Status: On Hold
- * Terms: 30D - 30 Days
- * Due Date: 2/12/2020
- Retainage Invoice (highlighted with a red box)
- * Cash Discount: 2/12/2020
- * Post Period: 01-2020
- Hold
- Pay by Line
- Project/Contract: HOTEL2 - The Beach Hotel and Condom
- Description: Progress billing application #1 for HOTEL2
- Discount Total: 0.00
- VAT Taxable T...: 0.00
- VAT Exempt T...: 0.00
- Tax Total: 0.00
- Balance: 20,771.83
- Cash Discount: 0.00

Below the main form, there is a table with the following data:

* Branch	Line Nbr.	Account Group/Item	Transaction Descr.	Quantity	UOM	Unit Price	Ext. Price
HEADOFFICE	1		Retainage for Invoice 000085	0.00	0.0000	20,771.83	

28. For each generated retainage invoice, clear the **Hold** check box, and release the generated retainage invoice. Notice that **Total Retained Amount** for the project has decreased.

RETAINAGE

The screenshot shows the 'RETAINAGE' configuration screen with the following settings:

- Retainage Mode: Contract Cap
- Include CO
- Contract Total: 64,715,457.00
- Completed (%): 100.00
- Total Retained Amount: 864,356.87
- Retainage (%): 5.00
- Stepped
- Cap (%): 50.00
- Total Cap: 1,617,886.42

29. Retainage amount held for task 01 is now zero.

Projects		NOTES	FILES	NOTIFICATIONS	TOOLS									
		SAVE & CLOSE	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT	
* Project ID:	HOTEL2	*	Status:	Active	Assets:	0.00								
Customer:	EQUGRP - The Equity Group Investor			Hold	Liabilities:	0.00								
Template:					Income:	64,715,457.00								
* Description:	The Beach Hotel and Condominiums				Expenses:	0.00								
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT		
Project Task:														
Original Budgeted Amount	Potential CO Quantity	Potential CO Amount	Revised Budgeted Quantity	Revised Budgeted Amount	Budgeted CO Quantity	Budgeted CO Amount	Draft Invoices Amount	Actual Quantity	Actual Amount	Completed (%)	Pending Invoice Amount	Performance (%)	Tax Category	All Records
154,366.00	0.00	0.00	0.00	29,154,366.00	0.00	25,000,000.00	0.00	0.00	29,154,366.00	100.00	0.00	100.00		0.00 0.00 0.00
809,185.00	0.00	0.00	0.00	1,809,185.00	0.00	0.00	0.00	0.00	1,809,185.00	100.00	0.00	100.00		0.00 88,650.07 88,650.07
319,840.00	0.00	0.00	0.00	8,319,840.00	0.00	0.00	0.00	0.00	8,319,840.00	100.00	0.00	100.00		0.00 207,996.00 207,996.00
210,648.00	0.00	0.00	0.00	1,210,648.00	0.00	0.00	0.00	0.00	1,210,648.00	100.00	0.00	100.00		0.00 48,425.92 48,425.92
901,356.00	0.00	0.00	0.00	1,901,356.00	0.00	0.00	0.00	0.00	1,901,356.00	100.00	0.00	100.00		0.00 50,460.53 50,460.53

You can review the values in the **Unreleased Retainage** column for the related AR invoice lines on the Invoices and Memos form (application #1, #2, and #3 have zero **Unreleased Retainage** for task 01).

30. Fully release the retainage left by doing the following:

- a. Navigate to the Release AR Retainage (AR510000) form and filter the data by the *HOTEL2* project.
 - b. Select the date of the latest project invoice in the **Date** filter to see all the project invoice lines with unreleased retainage.
 - c. Click **Process All** on the form toolbar and wait until all the retainage invoices are generated.

31. Release the generated retainage invoices.

32. Review the project's revenue budget on the **Revenue Budget** tab of the Projects form.

Project Details											Financial Overview			Resource Allocation		
Project ID:		HOTEL2	Status:		Active	Assets:		0.00		Customer:		Liabilities:		0.00		
Customer:		EQUGRP - The Equity Group Investor			Template:		Income:		64,715,457.00		Description:		Expenses:		0.00	
SUMMARY	TASKS	REVENUE BUDGET	COST BUDGET	BALANCES	COMMITMENTS	INVOICES	CHANGE ORDERS	CHANGE REQUESTS	UNION LOCALS	ACTIVITY HISTORY	EMPLOYEES	EQUIPMENT				
Project Task:		<input type="text"/>			<input type="checkbox"/> Group by Task		Pending Invoice Amount Total:		0.00							
Original Budgeted Amount Potential CO Quantity Potential CO Amount Revised Budgeted Quantity Revised Budgeted Amount Budgeted CO Quantity Budgeted CO Amount Draft Invoices Amount Actual Quantity Actual Amount Completed (%) Pending Invoice Amount Performance (%) Tax Category All Records																
154,366.00	0.00	0.00	0.00	29,154,366.00	0.00	25,000,000.00	0.00	0.00	29,154,366.00	100.00	0.00	100.00		0.00	0.00	0.00
809,185.00	0.00	0.00	0.00	1,809,185.00	0.00	0.00	0.00	0.00	1,809,185.00	100.00	0.00	100.00		0.00	0.00	0.00
319,840.00	0.00	0.00	0.00	8,319,840.00	0.00	0.00	0.00	0.00	8,319,840.00	100.00	0.00	100.00		0.00	0.00	0.00
210,648.00	0.00	0.00	0.00	1,210,648.00	0.00	0.00	0.00	0.00	1,210,648.00	100.00	0.00	100.00		0.00	0.00	0.00
901,356.00	0.00	0.00	0.00	1,901,356.00	0.00	0.00	0.00	0.00	1,901,356.00	100.00	0.00	100.00		0.00	0.00	0.00
225,000.00	0.00	0.00	0.00	1,225,000.00	0.00	0.00	0.00	0.00	1,225,000.00	100.00	0.00	100.00		0.00	0.00	0.00
989,355.00	0.00	0.00	0.00	989,355.00	0.00	0.00	0.00	0.00	989,355.00	100.00	0.00	100.00		0.00	0.00	0.00
638,760.00	0.00	0.00	0.00	1,638,760.00	0.00	0.00	0.00	0.00	1,638,760.00	100.00	0.00	100.00		0.00	0.00	0.00
110,796.00	0.00	0.00	0.00	8,110,796.00	0.00	0.00	0.00	0.00	8,110,796.00	100.00	0.00	100.00		0.00	0.00	0.00
449,500.00	0.00	0.00	0.00	1,449,500.00	0.00	0.00	0.00	0.00	1,449,500.00	100.00	0.00	100.00		0.00	0.00	0.00
135,000.00	0.00	0.00	0.00	1,135,000.00	0.00	0.00	0.00	0.00	1,135,000.00	100.00	0.00	100.00		0.00	0.00	0.00
345,500.00	0.00	0.00	0.00	345,500.00	0.00	0.00	0.00	0.00	345,500.00	100.00	0.00	100.00		0.00	0.00	0.00
696,919.00	0.00	0.00	0.00	696,919.00	0.00	0.00	0.00	0.00	696,919.00	100.00	0.00	100.00		0.00	0.00	0.00
910,742.00	0.00	0.00	0.00	3,910,742.00	0.00	0.00	0.00	0.00	3,910,742.00	100.00	0.00	100.00		0.00	0.00	0.00
818,490.00	0.00	0.00	0.00	2,818,490.00	0.00	0.00	0.00	0.00	2,818,490.00	100.00	0.00	100.00		0.00	0.00	0.00

33. On the **Summary** tab, see that **Total Retained Amount** is now zero.

RETAINAGE		
Retainage Mode:	Contract Cap	
<input checked="" type="checkbox"/> Include CO		
Contract Total:	64,715,457.00	
Completed (%):	100.00	
Total Retained Amount:	0.00	
Retainage (%):	5.00	<input type="checkbox"/> Stepped
Cap (%):	50.00	1,617,886.42