

The Ultimate Guide to **PROJECT FINANCES**



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PROJECT FINANCES DEFINED

A critical component of a successful project is understanding and accurately tracking all relevant finances. When you think about project finances, profit may be the first figure that comes to mind, and though it is vital for running a successful business, it is not the only number a Project Manager should track.

At Easy Projects, we use the following comprehensive definition for Project Finances:

The forecasting, monitoring, and management of any expenditures attached to a particular project and its relation to the team's ability to complete the project on time and budget.

To help make the full scope of project finances easier to grasp, we have created The Ultimate Guide to Project Finances. By reading this guide, you will be equipped with project finance definitions, formulas, and real examples of when to best use them so, moving forward, you can ensure your project's financial overall health is strong!

Why Project Managers Need to Understand Project Finances

Completing a project and delivering it to a Client is one way to measure the success of your project; the other is understanding its full financial health.

If you delivered a project to a Client on or before the proposed delivery date, you would likely consider that a success. If your project met the deadline but was over budget by 15%, would you still consider that a win? ***According to Harvard Business Review, one in six projects have an average cost overrun of 200% and a schedule overrun of nearly 70%.***

Project Managers do not want to share the disappointing news to a Client that their budget has been exceeded, or to lose money on a job because they have to absorb the extra cost. To help avoid this, let us dive into the three essential pillars of project finances: cost, budget, and billing (revenue).

CHAPTER TWO

THREE PILLARS OF PROJECT FINANCES: COST, BUDGET AND BILLING (REVENUE)

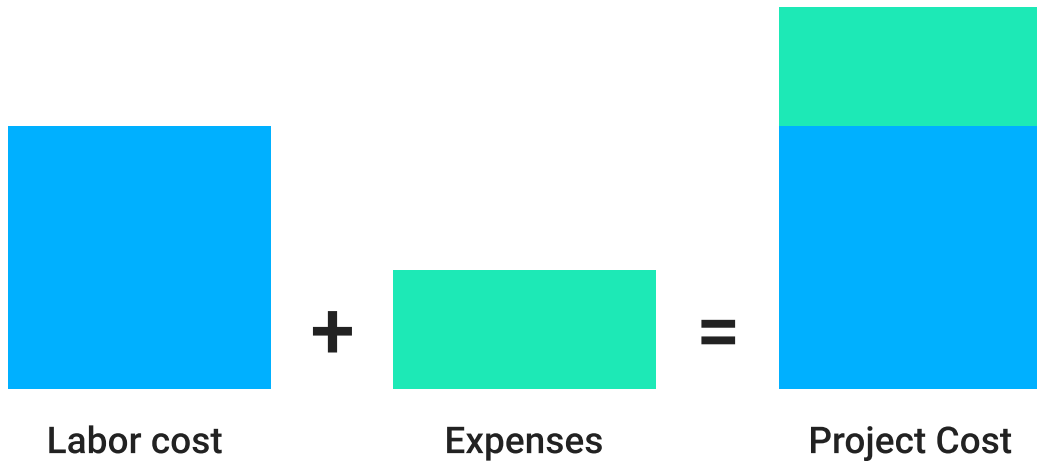


THREE PILLARS OF PROJECT FINANCES: COST, BUDGET AND BILLING (REVENUE)

When it comes to a complete understanding of project finances, the difference between cost, budget, and revenue is a topic that often causes confusion. Let us try to clarify things a bit. As a bonus, we will also include project profit.

WHAT IS PROJECT COST?

Project Cost is the total amount of money required to complete a project. Project cost consists typically of **Project Labor Cost** plus **Project Expenses**. We will cover each of these definitions later in this guide.



Project Cost is something that every Project Manager needs to plan and track rigorously.

During the lifecycle of a project, Project Cost can be represented through the following metrics:

1. Planned Project Cost

The expected total cost of the project at the very beginning of the project. Ideally, this metric should not change as the project progresses. Often Planned Project Cost is referred to as **Project Budget**.

2. Actual Project Cost

The real-time total of the project's actual labor costs and expenses once the project has started. This metric begins from zero and changes every day. Ideally, on the last day of the project, the Actual Project Cost should be equal or lower to the Planned Project Cost. If you manage to keep it this way, well done!

3. Estimate to Complete (ETC) Project Cost

The real-time summary of the remaining estimated labor cost and planned expenses - what is left to complete the project.

4. Estimate at Completion (EAC) Project Cost

The real-time summary of the Actual Project Cost plus ETC Project Cost. Ideally, the EAC Project Cost would be equal to the Planned Project Cost. However, to paraphrase Helmuth von Moltke, the Elder, **no project plan survives the first contact with reality**. For example, if you added an unanticipated expense/change request, or a specific task ends up taking more time than initially planned, your EAC Project Cost will increase.



Further Reading:

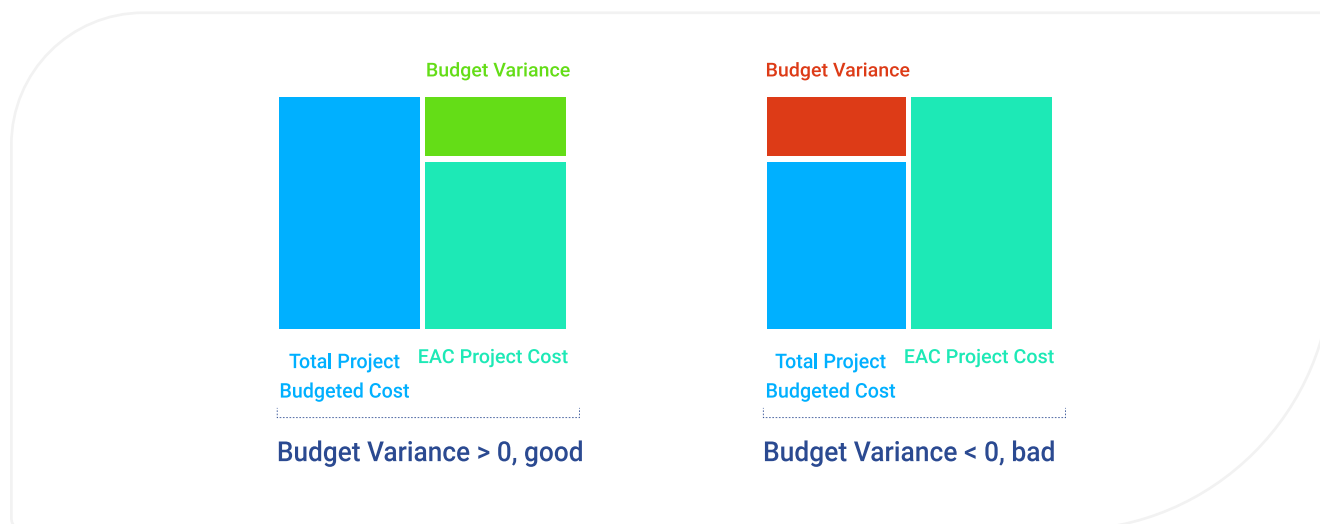
[4 Tips for Effective Project Cost Management](#)

WHAT IS PROJECT BUDGET?

There are multiple interpretations of the definition of Project Budget. At Easy Projects, we use the following description:

Project Budget is the amount that the final Project Cost should not exceed.

Naturally, once a Project Manager sets a target for their Project Budget, this target should be compared to the EAC Project Cost. As a Project Manager, you want to make sure that your project stays under or on budget: $\text{Project Budget} - \text{EAC Project Cost}$ should be equal or greater than zero. This difference is usually referred to as Budget / Cost Variance.



If your Cost Variance is negative, it means that you will be over your allocated budget when the project is completed. You need to mitigate this risk as soon as possible or prepare for a tough talk with the project stakeholders.

HOW TO CALCULATE PROJECT BUDGET

Sometimes you are given a fixed project budget that you have to work with. If that is the case, congratulations, your job just got easier (spoiler alert: it did not).

More often, especially with billable projects, you need to calculate your project budget (internal planned cost) to prepare a quote for your customer. Here are the four steps we recommend following:

1. Create your work breakdown structure (WBS) (i.e. the list of tasks needed to complete the project).
2. Work with your team to estimate the time required to complete each task. Estimated time multiplied by the internal rates of team members assigned to each task will give you the estimated labor cost.
3. Add all planned expenses.

4. Some tasks might have a fixed cost, for example, if they are to be completed by vendors or contractors. If you do not want to record these tasks as planned expenses, you can add a separate budget for each such task (activity).
5. At this point, you got all the estimated costs of a project; this is what you think your project will cost you. However, it is always good to add some additional contingency padding to cover some unexpected risks.

The summary of the Labor Cost + Planned Expenses + Activities Budgets + Contingency Project Budget padding will give you the **Total Project Budget** or the way it is called in Easy Projects: **Total Project Budgeted Cost**.



Further Reading:

[Project Budgeting in Birdview PSA](#)

WHAT IS PROJECT BILLING (REVENUE)?

While almost every project has a cost and budget, Project Billing only comes to life when you have a paying Customer. At Easy Projects, we use the following definition:

Project Billing or Project Revenue is the total amount of money a Customer pays for a project.

Similar to Project Cost, Project Revenue can be represented as multiple metrics, such as:

1. **Target Revenue** - The expected total amount of money your Customer will pay for this project. If your project Billing Type is Flat (Fixed) Fee, your Target Revenue is equal to Project Fixed Fee. Otherwise, if your project Billing Type is Time & Material, you should set your Target Revenue at the amount you plan to collect from the Customer and still make a profit (more on it later).
2. **Actual Billing** - the amount of money matching the work you are ready to bill your customer for.

Actual Billing is the sum of all Actual Time spent on the project multiplied by the Billing Rates plus all Actual Billable Expenses and Flat Fees of all completed activities.

Ideally, at the end of the project, Actual Billing should equal or be greater than Target Revenue.

3. **Estimate at Completion (EAC) Project Billing (Revenue)** - Summary of the Actual Billing and all remaining Labor Billing, remaining Planned Billable Expenses plus Flat Fees of all unfinished activities. Ideally, the difference (Revenue Variance) between Target Revenue and EAC Project Revenue should equal or be greater than zero.

WHAT IS PROJECT PROFIT?

This one is easy. At Easy Projects, we use the following description:

Project Profit is the difference between Project Revenue and Project Cost.

Naturally, you want to collect more money from the Customer than it costs to complete your project.

Below are the different types of Profit metrics throughout the project lifecycle:

1. **Target Project Profit** - The expected delta between Project Revenue and Project Cost at the end of the project. This target can be tracked as an absolute number in your project's currency or as a percentage, often referred to as Profit Margin.
2. **Actual Project Profit** - a percentage, often referred to as Profit Margin. Actual Project Profit - The real-time difference at any given moment between Actual Project Revenue and Actual Project Cost.
3. **Estimate at Completion (EAC) Project Profit** - The real-time difference between EAC Project Revenue and EAC Project Cost.



CHAPTER THREE

BILLING TYPES



BILLING TYPES

If you are charging Customers for your services, essentially there are two types of agreement on how you will charge them:

1. **Flat Fee** - no matter how much time you spend on the project and what kind of expenses you have, you agree with a customer on a fixed amount that you will charge.
For example, a client is charged \$50K for a project. Clients are not charged for time or expenses. Instead, these are tracked for internal cost calculations and reference.
2. **Time and Material** - with this approach, the customer agrees to pay for the actual billable hours spent on the project and cover certain billable expenses or fixed costs.

In the case of Time and Material billing, there are multiple ways to charge for your team and contractors' time spent on the project.

Resource Hourly Rate - the billing amount will be calculated based on the Hourly Billing rate specified for each employee, regardless of what project they are working on.

Project Hourly Rate - the billing amount will be calculated based on the Hourly Billing rate specified for the entire project, regardless of who is doing the work.

Customer Hourly Rate - all projects done for this Customer will be billed based on one specific rate, regardless of who is doing the

Activity Hours Rate - billing will be based on the rates set for the project's individual activities (tasks), regardless of who is doing the work. With this option, it is possible to use a combination of hourly and fixed cost tasks.

Rate Cards - this is the most flexible option, suitable for complex billing situations. With rate cards, different people might have different rates in various projects, depending on their role.

For example, Linda can be a designer with a billing rate of \$150/hr in Project A and can act as a Senior Design Lead in Project B with a billing rate of \$200/hr.

Further Reading:

[Effectively Track Resources with Rate Cards](#)

[6 Habits of Effective Hourly Billing](#)

[Time and Expense Tracking in Birdview PSA](#)

CHAPTER FOUR

PAYMENTS



PAYMENTS

Once you have agreed with the customer on the billing type, you also probably want to decide on the payment schedule (when and how much the customer will pay you). Such arrangements vary by customer and project; however, it is common to have a fixed installment schedule for the Flat Fee projects.

For example, 25% of the project cost will be billed upfront, 50% when the working prototype is delivered, and another 25% when user acceptance testing is completed. Additionally, you can have some type of recurring payments (**monthly or bi-weekly**) for the Time & Material billing.

It is useful for a Project Manager to be able to track Schedule (or Planned) Payments against the Actual Payments to always know what is outstanding and when to expect the next tranche.

CHAPTER FIVE

ADDITIONAL PROJECT FINANCIAL METRICS



ADDITIONAL PROJECT FINANCIAL METRICS

While Cost, Budget, Revenue, and Profit are the most critical numbers for project finances, some additional metrics are also beneficial to measure and track.

WORK IN PROGRESS (WIP)

Shows how much work has been completed that has not been billed to the Client yet. This metric is often used in milestone-based billing scenarios where you have to ensure you are billing appropriately the amount of work done.

WIP helps Project Managers track their projects' financial progress by knowing what has been billed and what is available to bill (WIP). This information can proactively manage a project's budget and help discover any potential cost overruns.

Work In Progress Formula = $(1 - (\text{Total Billed} / \text{Total Project Billing})) * 100\%$

EARNED VALUE ANALYSIS (EVA)

Earned Value Analysis (EVA) helps Project Managers evaluate the effectiveness of their overall project schedule and budget. EVA uses three factors: cost, schedule, and scope, to predict completion dates, future team performance, and the likely end cost.

EVA objectively measures project performance through these two parameters:

Cost Performance Index (CPI) - shows how well the project is performing relative to the project budget.

Schedule Performance Index (SPI) - calculates how well the project is performing relative to the project timeline.

$$\text{CPI} = \frac{\frac{\text{Progress}}{100} \times \text{EstimatedHours}}{\text{ActualHours}} \qquad \text{SPI} = \frac{\frac{\text{Progress}}{100}}{\frac{\text{CurrentDate} - \text{StartDate}}{\text{EndDate} - \text{StartDate}}}$$

Usually, if either CPI or SPI has a value less than 1, your project is at risk, and if both of these indicators are below 1, then your project is definitely in trouble.

Further Reading:

[How to Calculate Earned Value Analysis to Finish Projects On Time and Budget](#)

[How to Calculate EVA \[Video\]](#)

UTILIZATION RATE

Utilization rate is another vital project health metric that shows how well you are utilizing your resources. Essentially, it is a ratio between the total billable hours spent by each resource to their available hours and is calculated as a percentage.

$$\text{Utilization Rate} = \text{Billable Hours} / \text{Total Available Hours} * 100\%$$

For example, if your team has marked as billable 800 hours out of 1,000 hours available, your Utilization Rate would be 80%.

Utilization rate is helpful to determine if you have enough billable work for your resources. If this number is low, it means your team is spending way too much time working on internal projects.

REALIZATION RATE

Realization Rate metric can be more suitable for professional services organizations since it calculates the ratio between total billed hours compared to the total available billable hours.

$$\text{Realization Rate} = \text{Total Billed Hours} / \text{Total Billable Hours} * 100\%$$

For example, your engineering team of 3 people has a total of 480 available hours per month. 30 Hours are allocated to internal training, and the remaining 450 hours should be spent working on paid engagements. In reality, only 315 hours were billed to the customer. $\text{Realization Rate} = 315 / 450 * 100\% = 70\%$

A low realization rate would indicate that you are not using your resources profitably.

REALIZED RATE

Not to be confused with Realization Rate, Realized Rate shows your effective billing rate based on the Realization Rate and your resources' billing rate.

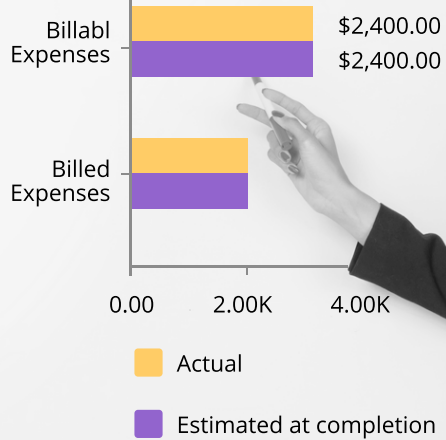
$$\text{Realized Rate} = \text{Realization Rate} * \text{Billing Rate} (\$)$$

For example, Linda, your Lead Engineer, has a billing rate of \$120/hour. Her realization rate is 75% (meaning that Linda only bills 75% of her available billing time per month). Linda's Realized Rate will be $75\% * \$120/\text{hr} = \$90/\text{hr}$

Realized Rate is useful to determine how profitable your resources are and whether you need to increase your billing rates or the number of billable hours.

CHAPTER SIX

USE CASES & EXAMPLES



USE CASES AND EXAMPLES

1. MANAGING THE BUDGET FOR AN INTERNAL PROJECT

Now that we have covered the breakdown of project finances, we will review a few different billing scenarios and see which financial metrics would be useful in each case.

Scenario:

You need to organize a company retreat.

FINANCIAL NEEDS:

- Prepare a budget for the retreat.
- Monitor costs as the preparation goes on.

INITIAL SETUP:

1. Create a detailed project plan (WBS)
2. Specify estimated hours for the tasks, where internal labor costs are expected (**for example, Marketing department acting as a profit center and charging internally for its work on the retreat signage**)
3. Add planned expenses for each task in the plan that has any costs associated with it (**for example, accommodation booking, catering, canoe rental, etc.**)

Log Expenses

Actual

Planned

Actual: \$18,250.00

Estimate at Completion: \$18,750.00

#	Amount	Description	Billable	Project / Activity name
1	12,000.00	Accommodation	No	Project Finances: Company Retreat
2	2,500.00	Catering	No	Project Finances: Company Retreat
<div><div></div><div>✓</div></div>	1,800.00	Rent canoes	No	Project Finances: Company Retreat
4	2,300.00	Workshop facilitator	No	Project Finances: Company Retreat
<div>+</div>	Log planned expense			

- 4. Set aside an additional budget for unexpected expenses and force majeure.
- 5. Combine estimated labor cost (24 hours * \$50/hr = \$1,200), additional contingency project budget (\$4,500), and all planned expenses (\$18,600). Your total project budgeted cost comes to \$24,300.

Budget

Project Budget

\$5,700.00

☒ add activities budgets

\$0.00

☒ add planned expenses

\$18,600.00

Total Project Budget

\$24,300.00

METRICS TO TRACK:

- 1. As the project progresses, compare the Actual Project Cost and Estimate at Completion (EAC) Project Cost with Project Budget to make sure you’re staying on track.

Targets	
Total Budget	\$24,300.00
EAC Cost ⓘ	\$19,000.00
Variance	▲ \$5,300.00

2. MANAGING FLAT FEE PROJECT

Scenario:

The Customer Success team needs to implement and deploy a software platform for a customer. Implementation will be sold as a fixed cost contract. This project will only involve labor costs, with no expenses to occur.

FINANCIAL NEEDS:

- Determine the value of the contract using a 30% profit margin requirement.
- Make sure certain high-risk activities do not exceed their budgets.
- Monitor overall internal labor costs.
- Bill customer and track payments according to the agreed schedule.
- Calculate project profitability.

INITIAL SETUP:

1. Create a detailed project plan (WBS). Use a template if available.
2. Assign employees to each task.
3. Specify estimated hours for all tasks (activities).
4. Make sure all resources involved in the project have their internal rates specified.
5. Add the budget for all activities that have a previous demonstrated history of potentially exceeding estimated costs.

<div> <div> <div></div> <div>+</div> </div> <div>Customer Migration</div> <div>Medium</div> </div>		Foundation	JUL 5 2020	SEP 23 2021	24%		
<input type="checkbox"/>	Customer Approval	In Process	8.25h	JUL 14 2020	SEP 23 2021		\$4,900.00 (Budget)
<input type="checkbox"/>	Gather customer requirements and proposed solutions	Closed	24h	JUL 5 2020	MAR 26 2021		\$0.00 (Budget)
<input type="checkbox"/>	Collect project ideas & requirements customer	Closed	14h	JUL 5 2020	JUL 7 2020		\$500.00 (Budget)
<input type="checkbox"/>	Prepare internal estimation	Closed	5h	JUL 8 2020	JUL 9 2020		\$0.00 (Budget)
<input type="checkbox"/>	Prepare project scope	Closed	5h	JUL 12 2020	JUL 13 2020		\$2,200.00 (Budget)
<input type="checkbox"/>	Operational Readiness Check	Open	0h	SEP 10 2021	SEP 11 2021		\$0.00 (Budget)
<input type="checkbox"/>	Approve / Modify Scope & Estimate	Closed	3h	JUL 14 2020	JUL 14 2020		\$1,500.00 (Budget)

6. Set aside an additional budget for unexpected expenses and force majeure.
7. Calculate Estimate at Completion (EAC) Project Cost: Labor Cost (\$7,000) + Additional Project Budget (\$1,000) = \$8,000.
8. Calculate Project Flat Fee based the desired 30% Profit Margin. Project Fee = Project Cost (\$8,000) + 30% = \$10,400.

Billing

Billing type:

Project flat fee

Fee amount:

\$10,400.00

9. Setup agreed upon payment schedule, i.e., 25% prepayment, 20% when the initial platform configuration is done, 35% when the training is completed, 20% when User Acceptance Testing is completed.

Log Payments

Received

Scheduled

Received: \$0.00 Scheduled: \$10,400.00

#	Date	Amount	Description
1	09/06/2020	2,600.00	25% Prepayment
2	09/15/2020	2,080.00	20% Initial project configuration is done
3	09/25/2020	3,640.00	35% Training is completed
4	10/01/2020	2,080.00	20% User Acceptance Training is completed
+	Add scheduled payment		

10. Make sure your team tracks their time.

METRICS TO TRACK:

1. For high-risk activities, monitor and compare their Activity Actual cost with Activity Budget.

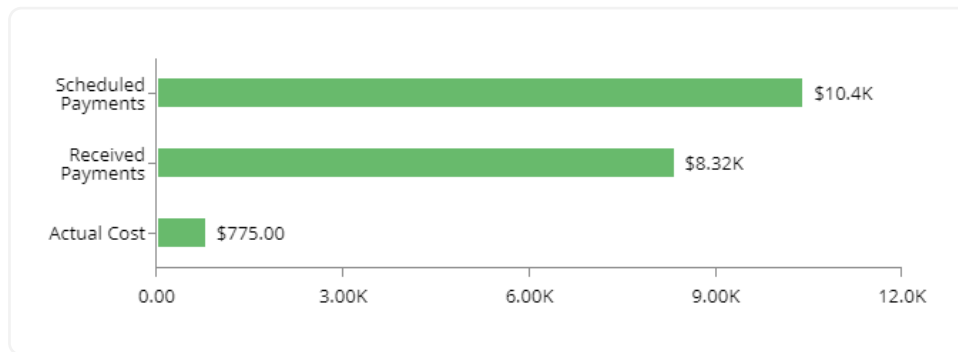
<div><div><div></div><div>+</div></div><div>Live System Setup</div><div><div>Task</div><div>Medium</div><div>...</div></div></div>	<div><div><div></div><div>Open</div></div></div>	<div><div>SEP 7</div><div>2020</div><div>▶</div><div>SEP 7</div><div>2020</div></div>	<div><div>4.5h</div><div>of 5h</div><div></div></div>	<div><div><div></div></div><div><div>\$500.00 (Budget)</div><div>225.00 (Internal Cost)</div><div>\$275.00 (Cost Variance)</div></div></div>
<div><div><div></div><div>+</div></div><div>Data Review & Import</div><div><div>Task</div><div>Medium</div><div>...</div></div></div>	<div><div><div></div><div>Open</div></div></div>	<div><div>SEP 8</div><div>2020</div><div>▶</div><div>SEP 8</div><div>2020</div></div>	<div><div>11h</div><div>of 10h</div><div></div></div>	<div><div><div></div></div><div><div>\$600.00 (Budget)</div><div>550.00 (Internal Cost)</div><div>\$50.00 (Cost Variance)</div></div></div>

2. Compare Actual Project Cost, EAC Cost and Estimated to Complete (ETC) Cost with the overall Project Budget.

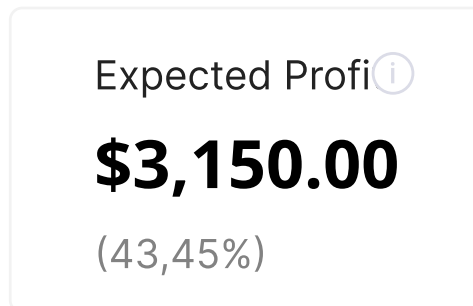
Targets

Total Budget	\$8,000.00
EAC Cost ⓘ	\$7,050.00
Variance	▲ \$950.00

3. Record and track all received payments.



4. Monitor project profitability.



3. TIME & MATERIAL ENGAGEMENT WITH A PROFIT MARGIN GOAL

Scenario:

A time and material contract has been signed for an IT Support project. An in-house team, as well as 3rd-party contractors, will be involved. Different billing rates and fixed billing amounts need to be applied based on the type of activity performed.

FINANCIAL NEEDS:

- Set different billing rates based on the type of activity performed (hourly or fixed cost).
- Add a 15% billing markup for all jobs performed by vendors and contractors.
- Monitor overall internal project costs and maintain a 30% profit margin.

- Monitor billable hours compared to total available hours to maintain at least 75% Utilization rate.
- Bill customer monthly.

INITIAL SETUP:

1. Create a detailed project plan.
2. Assign employees to each task.
3. Specify estimated hours for all tasks (activities).
4. Make sure all resources involved in the project have their internal rates specified.
5. Set Project Billing Type as “Time and Material” and choose “Activity Rate” as a billing preference

Billing
Billing type:

Time Material

Project billing is based on:

Activity rate

6. Specify hourly billing rates for activities that should be billed based on time (both for internal team and 3rd-party contractors).

Billing type:

Hourly rate


Hourly rate

\$180.00

7. For all fixed cost activities performed by 3rd parties:
 - a. Add them as actual non-billable expenses.

Log Expenses

Actual
Planned


Actual: \$10,000.00
Estimate at Completion: \$10,000.00

#	Date	Amount	Description	Billable
1	09/07/2020	10,000.00	Network installation	No
+	Log actual expense			

- b. Add them as fixed-fee activity billing costs with an extra 15% markup.

Billing type

Flat fee

Flat fee

\$11,500.00

8. Add all labor-based payments to 3rd parties as non-billable expenses as well.
9. Set a 30% Profit Margin as a target to track.

Profit (%)

Track profit as

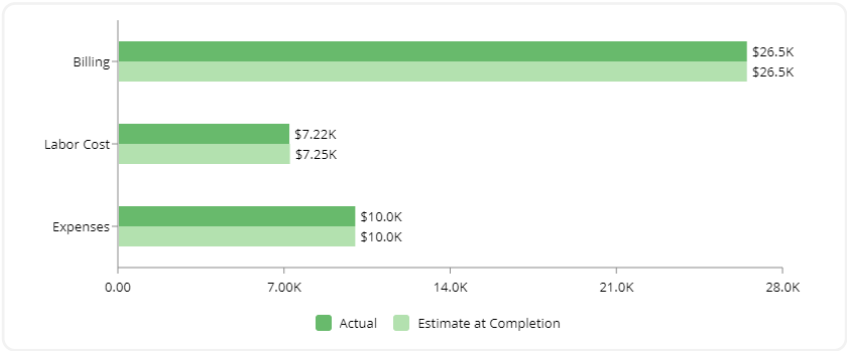
Percentage

Target Profit

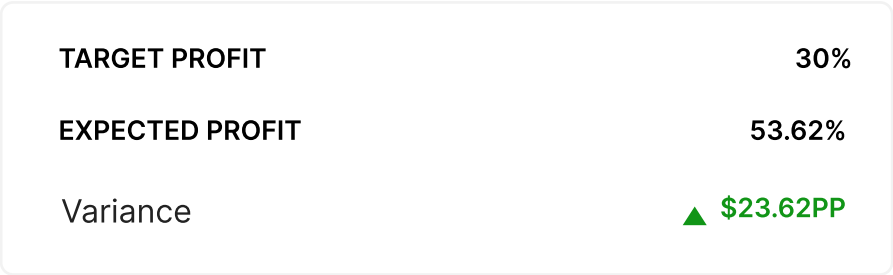
30%

METRICS TO TRACK:

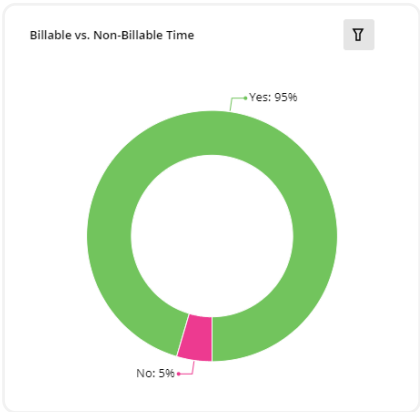
- 1. Compare Actual Project Cost, EAC Cost, and Estimated to Complete (ETC) Cost with the overall Project Billing.



- 2. Record and track all time logs and expenses.
Monitor project profitability.



- 4. Compare Billable and Non-Billable Time Entries to monitor Utilization Rate.



- 5. Run monthly billing reports to charge the customer for all unbilled activities.

4. TIME & MATERIAL ENGAGEMENT WITH RATE CARDS

Scenario:

A time and material contract has been signed for an engineering project. Billing will be based on the role a person has in the project.

FINANCIAL NEEDS:

- Set different billing rates based on the role, skills, and seniority of each team member.
- Set a target revenue of \$250,000 and a target profit amount of \$50,000.
- Monitor overall internal project costs.
- Bill customer monthly.

INITIAL SETUP:

1. Create a detailed project plan.
2. Assign employees to each task and assign them the appropriate role in this project.
3. Specify estimated hours for all tasks (activities).
4. Make sure all resources involved in the project have their internal rates specified.
5. Set Project Billing Type as “Time and Material” and choose “Rate Cards” as a billing preference.
6. Specify Rate Cards for this project.

Rate card

Engineering Implementation

\$ Dollar

Effective date

09/07/2020

Default rate

\$120.00

09/07/2020

Current

#	Role	Rate
1	Project Manager	\$250.00
2	Designer	\$175.00
3	Project Contributor	\$125.00
4	Technical Writer	\$90.00
5	Technical Specialist	\$150.00
+	Add role	

7. Set a \$250,000 revenue target and a \$50,000 profit target.

Revenue

Target Revenue

\$250,000.00

Profit (\$)

Track profit as

Amount

Target Profit

\$50,000.00

METRICS TO TRACK:

- 1. Compare Actual Project Cost and Actual Billing to track real-time project profit, and EAC Cost vs. EAC Billing to track expected profit.
- 2. Record and track all time logs and expenses.
- 3. Monitor project total billing (revenue) and profitability.

Target Revenue	\$250,000.00
EAC Billing ⓘ	\$38,250.00
Variance	▼ \$-211,750.00

- 4. Run monthly billing reports to charge the customer for all unbilled activities.

CHAPTER SEVEN

CONCLUSION



CONCLUSION

Now that you have read Birdview's Ultimate Guide to Project Finances, you should feel more confident in understanding your future projects' finances. For additional help on project finances, we invite you to learn more about Bidview PSA's Financial Module. The Financial Module makes it easier to accurately track project finances as it has all of the features we have covered in this guide built into the work management platform.

Take the next step in ensuring all of your projects are always profitable by [requesting a demo of Birdview PSA.](#)

CHAPTER EIGHT

APPENDIX: PROJECT FINANCES FORMULAS

EAC Project Cost = EAC Labor

EAC Expenses = Actual Expenses

Actual Project Cost =



APPENDIX: PROJECT FINANCES FORMULAS

Sometimes project finances can get confusing, so feel free to use this guide as a reference for various financial metrics commonly used in project management.

COST AND BUDGET FORMULAS

Planned Labor Cost - a prediction of how much labor cost the project might need.

$$\text{Planned Labor Cost} = \text{Estimated Hours} \times \text{Internal Hourly Rate}$$

Planned Expenses - a prediction of non-labor related costs the project might need.

Planned Project Cost - the expected total cost of the project at the very beginning of the project.

$$\text{Planned Project Cost} = \text{Planned Labor Cost} + \text{Planned Expenses}$$

Actual Labor Cost - the total cost of labor spent on the project to date.

$$\text{Actual Labor Cost} = \text{Actual Number of Hours} \times \text{Internal Hourly Rate}$$

Actual Expenses - how much has been spent on project expenses to date.

Actual Project Cost - the real-time summary of the project's actual labor costs and expenses once the project has started.

$$\text{Actual Project Cost} = \text{Actual Labor Cost} + \text{Actual Expenses}$$

Estimate to Complete (ETC) Labor Cost - remaining labor cost needed to complete the project.

$$\text{ETC Labor Cost} = \text{Hours Left} \times \text{Internal Hourly Rate}$$

ETC Expenses - remaining expenses needed to complete the project.

ETC Project Cost - the real-time summary of the remaining estimated labor cost and planned expenses - what is left to complete the project.

$$\text{ETC Project Cost} = \text{ETC Labor Cost} + \text{ETC Expenses}$$

Estimate at Completion (EAC) Labor Cost - the estimated total labor cost at the end of the project.

$$\text{EAC Labor Cost} = \text{Actual Labor Cost} + \text{ETC Labor Cost}$$

EAC Expenses - estimated total expenses at the end of the project.

$$\text{EAC Expenses} = \text{Actual Expenses} + \text{ETC Expenses}$$

EAC Project Cost - estimated total cost at the end of the project.

$$\text{EAC Project Cost} = \text{EAC Labor Cost} + \text{EAC Expenses}$$

Total Project Budgeted Cost - a set amount allocated to a project as a cost threshold that the Project Manager needs to remain under.

$$\text{Total Project Budgeted Cost} = \text{Planned Project Cost} + \text{Contingency Padding.}$$

Remaining Budget - the amount left to complete the project

$$\text{Remaining Budget} = \text{Total Budgeted Cost} - \text{Actual Cost}$$

BILLING AND REVENUE FORMULAS

Actual Flat Fee Activities = the sum of all flat fees associated with billable activities that have been completed.

Actual Labor Billing - the amount of money matching the performed billable labor.

$$\text{Actual Labor Billing} = \text{Actual Billable Hours} \times \text{Billing Rate} + \text{Actual Flat Fee Activities}$$

Actual Billable Expenses - the sum of all actual expenses that are billable to a customer.

Actual Billing (Project Revenue) - the amount of money matching the work you are ready to bill your customer for.

$$\text{Actual Billing} = \text{Actual Labor Billing} + \text{Actual Expenses}$$

ETC Flat Fee Activities = the sum of all flat fees associated with billable activities that are not completed yet.

ETC Labor Billing - the amount of money matching the billable labor that was not performed yet.

$$\text{ETC Labor Billing} = \text{Billable Hours Left} \times \text{Billing Rate} + \text{ETC Flat Fees Activities}$$

ETC Billable Expenses - the sum of all planned billable expenses.

ETC Billing (Revenue) - estimated amount of money expected yet to be charged to the customer.

$$\text{ETC Billing} = \text{ETC Labor Billing} + \text{ETC Billable Expenses}$$

EAC Labor Billing - the amount of money matching the estimated billable labor at the end of the project.

$$\text{EAC Labor Billing} = \text{Actual Labor Billing} + \text{ETC Labor Billing}$$

EAC Billable Expenses - the sum of all billable expenses at the end of the projects.

$$\text{EAC Billable Expenses} = \text{Actual Billable Expenses} + \text{ETC Billable Expenses}$$

EAC Billing (Revenue) - the estimated total amount of money expected to be charged to the customer by the end of the project.

$$\text{EAC Billing} = \text{EAC Labor Billing} + \text{EAC Billable Expenses}$$

Actual Project Profit - the real-time difference at any given moment between Actual Project Revenue and Actual Project Cost.

$$\text{Actual Project Profit} = \text{Actual Project Billing} - \text{Actual Project Cost}$$

Estimate at Completion (EAC) Project Profit - how much profit or loss is estimated to be at the end of the project.

$$\text{EAC Project Profit} = \text{EAC Project Revenue} - \text{EAC Project Cost}$$

Actual Profit Margin - real-time profitability of the project represented as a percentage.

$$\text{Project Margin} = \text{Actual Project Profit} / \text{Actual Project Revenue} * 100\%$$

EAC Profit Margin - estimated profitability at the end of the project represented as a percentage.

$$\text{EAC Project Margin} = \text{EAC Project Profit} / \text{EAC Project Revenue} * 100\%$$

Billed - total amount already billed to a customer.

MISCELLANEOUS PROJECT FINANCIAL FORMULAS

Work in Progress (WIP) - shows how much work has been completed that has not been billed to the customer yet.

$$\text{Work In Progress} = (1 - (\text{Total Billed} / \text{Total Project Billing})) * 100\%$$

Cost Performance Index (CPI) - shows how well the project is performing relative to the project budget.

$$\text{CPI} = (\text{Progress} * \text{Estimated Hours} * 100) / \text{Actual Hours}$$

Schedule Performance Index (SPI) - shows how well the project is performing relative to the project schedule.

$$\text{SPI} = (\text{Progress} / 100) / (\text{Current Date} - \text{Start Date}) / (\text{End Date} - \text{Start Date})$$

Utilization Rate - a ratio between the total billable hours spent by each resource to their available hours and is calculated as a percentage.

$$\text{Utilization Rate} = \text{Billable Hours} / \text{Total Available Hours} * 100\%$$

Realization Rate - a ratio between total billed hours compared to the total available billable hours.

$$\text{Realization Rate} = \text{Total Billed Hours} / \text{Total Billable Hours} * 100\%$$

Realized Rate - an effective billing rate based on the Realization Rate and your resources' billing rate.

$$\text{Realized Rate} = \text{Realization Rate} * \text{Billing Rate}$$

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