THE ULTIMATE GUIDE TO PROJECT TIME & EXPENSE FOR BILLING

How to improve time and expense data capture and processing

PACIFIC
TIMESHEET.

Table of Contents

Definitions

WHAT IS PROJECT TIME AND EXPENSE TRACKING FOR BILLING?

Project time and expense tracking is a managed process that captures, processes, approves and prepares employee-related time and expense data for invoicing clients each billing cycle. Categories of time and expense data can be:

Client Project Time that is Billable

Client project time that is billable is separate and apart from non-billable hours such as leave time, or non-billable administrative time spent such as proposals. Client project time is coded with whatever notes and details are necessary for project managers, or to comply with client questions about their projects.

For exempt salaried employees, all client project hours must be tracked. For time and materials project contracts, all exempt employee hours will be billable using predefined bill rates set according to the client project and perhaps the employee's role on that project. When a salaried employee's hours exceed preset monthly limits or the project's budgeted hours, these hours might be categorized as non-billable, but will remain part of the project's cost.

For non-exempt employees, all client project time must always be tracked first using standard pay codes with the following pay rates such as:

- Regular Time (typically 1.0 times a base employee pay rate)
- Overtime (1.5 times a base employee pay rate)
- Double Time (2.0 times a base employee pay rate)
- Triple Time (3.0 times a base employee pay rate)

Non-exempt billable hours are calculated second using preset project bill rates which can be set using a mark-up of the employee's pay rate, or certain predefined client project rates. These rates can also be differentiated by the employee or the employee's role on the project. In one example, an hourly employee who is a researcher on a client project in Virginia, has a base pay rate of $40.00 per hour. His regular time pay rate would be 1.0 times his base pay rate, meaning he would be paid $1,600.00 for his first forty hours of work. If his bill rate is 2.0 times his pay rate, then his billing amount would $3,200.00. If he works an additional twenty hours of overtime that week, he'll be paid 20.0 times $40.00 times 1.5, or an additional $1,200.00. Using the same bill rate, his billing amount for his overtime hours would be $2,400.00.

Client Project Expenses that are billable

Travel and Entertainment Expenses (T&E) are itemized travel, meals, lodging, entertainment and other incidental expenses incurred that are incurred because of an employee's project work. A project time and expense system needs to record T&E expense entries in:

- The local currency where the expense was incurred
- Your company's base currency
- The employee's currency for reimbursement, and
- Needs to be billed to clients in their base currency when generating client invoices.

Per Diem expense is a daily rate paid to employees to cover work-related expenses being performed out of town. Per diem expense incurred by an employee doing project work will be billed to the client. There are different types of per diems, such as:

- **Meals and Incidental Expenses (M&IE)** These are a daily allowance for meals and incidental expenses used when lodging is provided without direct expense to the employee or not incurred at all.
- **Lodging Plus M&IE** is a per diem that covers lodging, meals and incidental expenses.

Per diem rates are set according to the location where an employee's work is performed using federal per diem rates, or low and high per diem rates associated with the cost of living of different locations.

Mileage is a form of reimbursement paid to an employee for the business use of their personal vehicle. Mileage is calculated using a standard rate per mile times non-commuting miles driven. Mileage for employee project work will be billed to a client.

The key success factors for tracking and billing project expenses are

- Accurate expense tracking that allow employees to record expenses as close to in real time as possible. Employee expense tracking using mobile applications is now the best practice to allow them to track expense "on the go" "as the go."
- Accurate multicurrency conversion from local currencies to a company's base, the employee's reimbursement and the client base currencies, and
- Adherence to corporate expense policies through approvals and validation rules.

While employee pay or expense reimbursements are important, when we think of project time and expense, we are only concerned with those items that affect billable project time, and project expenses that will be billed to the project's client. For more information on time and expense for payroll, see: The Ultimate Guide to Payroll Time & Expense Tracking.

THE PROBLEMS WITH MANUAL TIME AND EXPENSE TRACKING

There are a lot of ways to track project time and expense, and each has its own strengths and weaknesses. Many firms still have employees fill out paper or Excel time and expense sheets using a few methods:

Paper Time & Expense Sheets

Preparation of paper time and expense sheets can take a lot of time, but, if you talk to most employees, they will tell you it's not time not well spent.

The Inefficiencies of Paper Timesheet Preparation

Most hard-working employees will fill out paper timesheets by hand, but it's usually at the last possible minute, and they might be complaining while they hand it in. Paper timesheets are notoriously riddled with errors for a few reasons:

- While some employees use project/task code keys or cheat sheets to accurately write in project and task codes, most use their sketchy memory. Errors in project and task codes are common, and negatively impact the processing of timesheets down the line.
- Commonly, when you wait until the very end of the week, it's difficult to remember the many details and notes you should have been tracking on your project and task hours every day of that week.
- DCAA (Defense Communications Audit Agency) requirements for government employees and government contract workers say that timesheet hours should be tracked daily. But DCAA is cumbersome to enforce unless you require employees to submit paper timesheets by hand each day.

Paper Expense Sheets can be Worse

Preparing paper expense reports is considered a nasty chore by employees. Original expense receipts must be stapled to expense report pages and submitted by hand to supervisor or project manager approvers. Another option is to scan expense receipts into a PDF expense sheet document so it can be emailed for approval. But paper expense sheets have additional pain points. Unlike timesheets, expense reports have no enforced deadlines, and employees can easily get off track and fall behind.

- Paper expense reports are notoriously difficult to prepare, make employees complain, and procrastinate even more to avoid what they say is an objectionable task, which leads to even more lateness.
- This kind of waiting hurts accuracy and further delays employee reimbursements, and for employees doing a high percentage of travel, hurts their morale.
- Delays in expense reports preparation and submission delay the company's billing clients for billable expenses, and directly hurts the company's cash flow.
- Expense report entries, requiring many details and notes on expense dates, locations, project codes, dinner attendees, or expense currency are often pulled together weeks or longer after the fact. Error-prone, incomplete, and inaccurate paper expense report entries are common.

Manually Check Time and Expense Data

Approvals and data checking are a slower process with paper.

- If an employee is traveling a great deal, a supervisor-approver's questions about time and expense entries, or if corporate accounting kicks back an expense report, must be done by email, or worst case, by phone.
- Project accounting staff often perform final checks to validate project and task codes before sending data to accounting and payroll. All this work must be done by hand with paper time and expense sheets.
- Errors are bound to be missed, with failed validations when sending data to ERP systems, and the need for more corrections is created down the line.

Excel Time and Expense Sheets

Excel time and expense sheets, while they have the advantage or being stored as electronic data files, are only incrementally better than paper time and expense sheets. After being filled out by an employee, they are often printed out and submitted by hand, faxed, FedExed to approvers. Or they are emailed to approvers.

- Excel time and expense sheets, in their original document file state, are not optimal media for the ordinary employee to store comments about entries.
- In turn, approvers and staff checking data must be adept at making Excel entry cell comments, when rejecting or correcting entries.
- The back and forth between employees and approvers to fix errant time and expense sheets all must be done quite inefficiently by email or phone.
- But on the back-end, Excel sheets can turn out to be not much better than paper, particularly if project accounting and payroll staff still have to enter in time and expense data into project accounting, payroll or ERP system data entry screens.

With Excel time and expense sheets you can consolidate Excel sheets into pivot tables for reporting and analysis. Better yet, it is possible to create master Excel files that can be uploaded to ERP systems like SAP. However, if you not using Excel time and expense sheets in this way, their only solid advantage over paper sheets is that they might provide a better media for safekeeping time and expense reports data. You also will need a scheme to store these Excel files in a central directory on your network that is backed at least up daily.

BUILDING YOUR OWN PROJECT TIME & EXPENSE SOFTWARE

Until recently, another common option was to build your own project time and expense system using contractors or IT staff employees. With experience, over time this option has become less popular for a few reasons:

- Long-term maintenance of home-grown systems becomes problematic, if not impossible as the original software developers leave the organization, and
- The developers, if they stay, can increasingly fall outside the mainstream of best-practices in the latest software developments.

- As modern best-of-breed project time and expense has matured into enterprise class software applications, companies have come to recognize project time and expense software as a core critical system that can do much more than simply automate paper or Excel time and expense sheets.

In-House Development: Thirteen Built-in Problems

1. The greatest problem with in-house developed systems is source code control, and its continuity and support over the long term. Today, development engineers and contractors move from company to company with great frequency so it is unlikely that continuous support for enhancements and updates should be expected beyond 18 – 24 months for any internally-developed project time & expense sheet application.
2. In all cases, in-house project time & expense sheet software should be able to automatically setup and continuing synchronization with third party systems of major system object data such as clients, projects, cost centers, or employees. It is less likely that an in-house application's developers will have the bandwidth to maintain these third-party system connectors as they change over time.
3. An in-house system must have the ability to record physical signatures and have them stored for safekeeping if they are to match paper time & expense sheets in notating time & expense sheet corrections and adjustments. DCAA and other auditing standards require that electronic systems and software must emulate the audit trail provided by paper systems.
4. An in-house system must be able to render time & expense sheets in a user client such as a browser on-demand or a mobile App. The system must also allow for the electronic printing, submission, approvals, rejections, corrections and reporting of time & expense sheets.
5. An in-house system must provide back-up and disaster recovery as a backup to physical time & expense sheets that might become lost or damaged.
6. It should also allow for the storage of images of paper-based time & expense sheets (e.g. using smartphone cameras) or PDF files copies.

7. If signatures are required, submissions, approvals and rejections must be authenticated through systems login and authentication features such as single sign-on using certain identity management features. The system should support any of the major SSO utilities, such as Azure AD, ADFS, OneLogin, Ping Federated, Okta and more. The system must have a detailed audit trail recording date and time stamps for all successful and failed login activity and those users conducting those all audited actions.
8. When developing an in-house system, databases should include MS Access, FoxPro for smaller systems and MS SQL Server or Oracle for larger systems. A design and database development resource can write a program that allows you to update project manager, supervisor and employee assignments data, supervisor approval assignments and if needed, security access permissions for different projects, phases or tasks.
9. You can give access to the database by writing a user interface that allows system administrators the ability to assign maintain these assignments, or to have them automatically synched with third party systems such as project accounting, ERP, payroll or project management systems.
10. You can write project time & expense sheet templates that can generate project time & expense sheets pre-filled with the employee identifying information, their proper pay or earnings codes, assigned projects and other key information.
11. You can write a project time & expense sheet application to allow for time off requests, automated accruals, other labor rules and policies such as overtime, missed meal penalties, and other rules. Time off schedules will help managers forecast future employee resource availability for upcoming projects.
12. You can write a holiday scheduler that automatically schedules holidays and populates them on employee project time & expense sheets with the correct hours according certain security permissions.
13. You should develop pay and bill rating modules with rules that automatically assign pay and bill rates using a matrix of assignment criteria such as employees, projects, cost centers, roles, etc.

Project Phase	**Tools**
Requirements Analysis	Options: Internal business analyst External consultant
Database Development Tools	Tool Options: MS SQL Server MS Access FoxPro
Business Logic/Interface Development	Tool Options: .NET Java/HTML PHP
Business Intelligence Reporting Tools	Tool Options: Tableau Crystal Reports Business Objects Cognos
Data Exchange Target Systems	Tool Options: ADP Paychex JD Edwards SAP Workday Other ERP systems

HOW TO EVALUATE PROJECT TIME & EXPENSE TRACKING SOFTWARE VENDORS

Finally, you should know that there are project time and expense tracking software vendors that specialize in the development and maintenance these systems. Choosing the best vendor includes having a deep understand of your current and future requirements, and being able to evaluate and choose the best vendor for your organization.

Considerations When Buying Software

1. **General Features.** There are certain general features that are the mark of an enterprise-class Project time and expense tracking system.

    1.1. Cloud and On-premise Software Options.

    1.2. Advanced construction Project time and expense software should be available in cloud versions or self-hosted versions.

    1.3. Ability to provide application security using custom enterprise security permissions and secure application access using SSL, LDAP, Active Directory and extending the support of authentication to include single sign-on / identity access management solutions such as Azure AD, ADFS, Ping Federated, Okta, and OneLogin.

    1.4. Ability to support all major operating systems, databases, web servers and browsers.

    1.5. Ability to track employee hours using any data entry method whether employees are in the office, in a manufacturing plant or in the field.

    1.6. Multiple approval levels and backup approval levels for Project time & expense sheets.

    1.7. Automated email reminders and notices to enforce time & expense sheet submission and approval deadlines.

1.8. Support for capturing hours either in pay code buckets or using automated pay rules.

1.9. With these rules, there should be support for various pay codes and types such as regular time, overtime, double time, triple time, shift differential, on call pay, call out pay.

1.10. There should be an ability to track and pay various leave pay codes for time off taken such as vacation, sick, PTO, personal time, jury duty, military leave, and short term disability.

1.11. The ability to code and track leave taken as part of Family Medical Leave Act leave.

1.12. Ability to support multiple time periods for Project processing and reporting such as weekly, bi-weekly, semimonthly, monthly, quarterly, yearly, year to date, fiscal years and more.

1.13. Ability to support multiple holiday schedules by division, group, state, province, country or country group for multiple employee types.

1.14. Ability to support multiple billing rate options by union, job, cost code, client, or other variables.

1.15. Ability to support multiple pay rate options by union, job, cost code, client, or other variables.

1.16. Ability to support multiple employee types for Project processing such as non-exempt, exempt, contractor, etc.

1.17. Ability to customize system terminology to match company's terminology for employees, assets, pay codes, time off, jobs, phases, cost codes and more.

1.18. Ability to brand or private label the application using a company logo and web page names.

1.19. Global support for multiple locales, languages and time zones.

1.20. Support for DCAA compliance including audit trails of time & expense sheet editing and system administrative changes.

1.21. Support for daily certified Projects including daily submission, approvals and reporting of Project data.

1.22. Data Synchronization and Web Services. If this information resides in a Project, accounting, ERP system, the project time & expense sheet software should be able to fetch updates of key object data using automated web services, and be able to push valid time and expense entry data to third party system using automated web services.

2. **Project Timesheets and Approval Workflows.** There are required features to give a system the ability to automatically setup time & expense sheet workflows.

2.1. Automatically assign employees with proper project timesheet templates for the automatic creation of project timesheets in proper formats

2.2. Automatically assign employees or groups of employees to have access to certain projects, phases or tasks against which he or she needs to track project time and expenses.

2.3. Automatically assign employees to certain non-exempt-oriented or exempt policies and rules sets that will automatically calculate, where appropriate, overtime hours, comp time or time lieu, leave accruals, project and leave time entry rules, and work schedule rules such as 980 compressed, four tens, and normal work schedules.

2.4. Automatically assign access rights to employees who needed earnings and pay codes for leave and exception time tracking, leave and exception time requests and scheduling.

2.5. Ability to create project timesheets using assigned templates that allows different template requirements for employee types, cost centers or project groups within the same company.

3. Ability create user defined fields that can be enabled in timesheet templates to track any entry data values using up to twelve different data types.

4. **Expense Sheets and Approval Workflows.** There are required features to give a system the ability to automatically setup expense sheets and workflows.

    4.1. Automatically assign employees with expense sheet templates for the automatic creation of expense sheets in proper formats.

    4.2. Automatically create expense entry templates that can record multiple expense types in expense sheets.

    4.3. The ability to automatically upload expense entries from company credit card accounts, with all related expense entries properties, into the system so that employee expense sheets are automatically created with an assigned unique expense report identifier, and each individual expense entry is assigned with a unique expense entry identifier.

    4.4. Expense entries can be setup for coding by any project, other work item such as phase, task, or cost center.

    4.5. Expense entries types can be setup with certain default properties such as billable, non-billable, with the ability to set custom billing mark-ups or margins.

    4.6. Expense entries are recorded using at least three multicurrency conversions: 1) the local expense currency where the expense was incurred 2) the company's base currency and 3) the employee's reimbursement currency.

    4.7. Employee reimbursement currency is automatically set and stored in the system so that expense sheets are automatically converted into his or her reimbursement currency.

    4.8. Automatically assign access rights to employees who need access to certain classes of expense types.

    4.9. Ability to create expense sheet approval workflows where submitted expense sheets can be approved by supervisors and other assigned managers.

    4.10. Ability to enable approver notices that automatically notify expense sheet approvers when an employee has submitted a new expense sheet.

4.11. Ability to enable approve late notices that automatically notify, and can continue to notify approvers when their expense sheet approval has lapsed beyond a specified number of days after the expense sheet's submission.

4.12. Ability to enable employee notices that automatically notify an employee when his or her expense sheet is rejected with correction instructions, or approved.

5. **Ability to Validate Data, Policies and Rules.**

5.1. Ability to restrict employees and resources certain approved pay or earnings codes.

5.2. Ability to restrict employees to certain approved pay classes.

5.3. Ability to process rules such as overtime and double time hours and other entries.

5.4. Ability to process time off accruals and enforce other employee balance and accrual rules.

5.5. Ability to enforce required fields are entered in time and expense sheets.

5.6. Ability to restrict certain data field entry to managers with assigned security permissions.

5.7. Ability to process time entry rules that prohibit time and units entry policies from being violated.

5.8. Ability to process rounding rules where appropriate to ensure that hours and units data entry is uniform for Project, accounting and billing.

5.9. Ability to enforce rules that prevent data from being entered against inactive employees or cost centers.

5.10. Ability to enforce rules that do not allow time off to be scheduled on non-work days

5.11. Ability to enforce rules that do not allow time off submissions for past dates to violate current time off balances.

5.12. Ability to enforce rules that do not allow time off submissions for future dates to violate future time off balances.

5.13. Ability to support California rules such as California daily overtime, double time and consecutive day rules, the meal penalty rule and split shift premiums.

5.14. Ability to support 9/80 compressed rules.

5.15. Ability to enforce shift differentials and associated midnight split rules.

5.16. Ability to support certain comp time or time in lieu policies.

6. **Project Manager/Supervisor Features.** Once the electronic time and expense sheets are setup, supervisors should have several important usability features that are not available in paper or Excel time & expense sheets:

6.1. Ability to search for active employee time & expense sheets that they have the security permissions to approve, reject, manage, edit, view or print.

6.2. Ability to search for time & expense sheet notes by keyword.

6.3. Ability to search for employee time & expense sheets using key properties such as name, ID, employee type, cost center and other key properties.

6.4. Time & expense sheet should memorize frequently used pay or earnings codes and display them in easy to use pick lists.

6.5. Ability to add multiple pay or earnings codes, as in a paper time & expense sheet, on demand, essentially extending the structure of the Project time & expense sheet if needed without any administrative assistance.

6.6. Copy previous time & expense sheet setups from day to day, or time period to time period.

6.7. Ability of employee to record any time off hours by pay code.

6.8. Ability to schedule time off for employees they have permission to manage.

6.9. Ability to approve time off requests from employees who request time off.

6.10. Ability to electronically submit and/or supervisor approve Project time & expense sheets. Ability to navigate to any past Project time & expense sheet they have permission to manage, view, edit or print.

6.11. Ability to summary submit or summary supervisor approve an entire week of Project time & expense sheet entries.

6.12. Ability to print Project time & expense sheets for review and to obtain physical signatures if needed.

7. **Project Manager/Approval Features.** Once the electronic Project time & expense sheets are submitted and supervisor-approved, Project approvers should have several important usability features that are not available in paper or Excel time & expense sheets:

   7.1. Ability to login to a simplified approval dashboards that displays the information needed by project, department or cost center to complete project time & expense sheet approvals.

   7.2. Ability to search for project time & expense sheets that they have the security permissions to view, approve or reject.

   7.3. Ability to view employee hours by employee type or other subtotals.

   7.4. Ability to electronically approve employee hours, supervisor logs, incident reports and other submitted forms.

   7.5. Ability to send an automated rejection email notice with detailed reasons for the rejection to employees.

   7.6. Ability to project manager approve time off schedules for employees.

   7.7. Ability to navigate to any past employee time & expense sheet you have permission to view or print.

   7.8. Ability to project approve by day or summary approve an entire week of project time sheet entries.

   7.9. Ability to view custom reports and publish reports to direct reports or colleagues.

   7.10. Ability to view project dashboard which displays key project management data: project budgets, estimated hours to complete, planned start and finish dates, task status tracking.

   7.11. Ability to set an auto-inactivation of any project x days after its actual finish date.

   7.12. Ability to grant security permissions to supervisors, payroll, project or billing managers so they can create custom reports which when created are restricted to only their employees' data, or other data silos.

   7.13. Ability to print timesheets for review and to obtain physical signatures if needed.

   7.14. Ability to print expense sheets for review and to obtain physical signatures if needed.

7.15. Ability to electronically send project data to Project or ERP system using automated web services. They should be able to do this manually or as an automated scheduled event.

8. **Web Services.** Project time & expense sheet systems must be always be “in sync” with their project accounting, billing or ERP systems, usually the system of record for all time and expense data. Project managers should have several important usability features that are not available in paper or Excel time & expense sheets:

8.1. Ability to have employee data automatically synchronize with the project time & expense sheet system using automated web services. This data should include, but is not limited to, employee profile data, supervisor assignments, project assignments, cost center assignments, pay and billing rates, and more.

8.2. Ability to use the project time & expense sheet system as a system of record and have the ability manually trigger the sending of data or create scheduled events where of system object data can be sent to third party systems such as HR, Project, scheduling, ERP or accounting systems.

Pacific Timesheet

Pacific Timesheet offers an enterprise-class best-of-breed time and expense tracking system for projects. All of its features work together so you can capture, validate, approve, process and send your project time and expense data to your project management, project accounting, payroll and/or ERP systems in 1/10th the time of manual methods, and 50% better than other software methods.

If you would like to learn more about Pacific Timesheet you can take a product tour or contact us at sales@pacifictimesheet.com or call 866-416-2061, ext. 1.