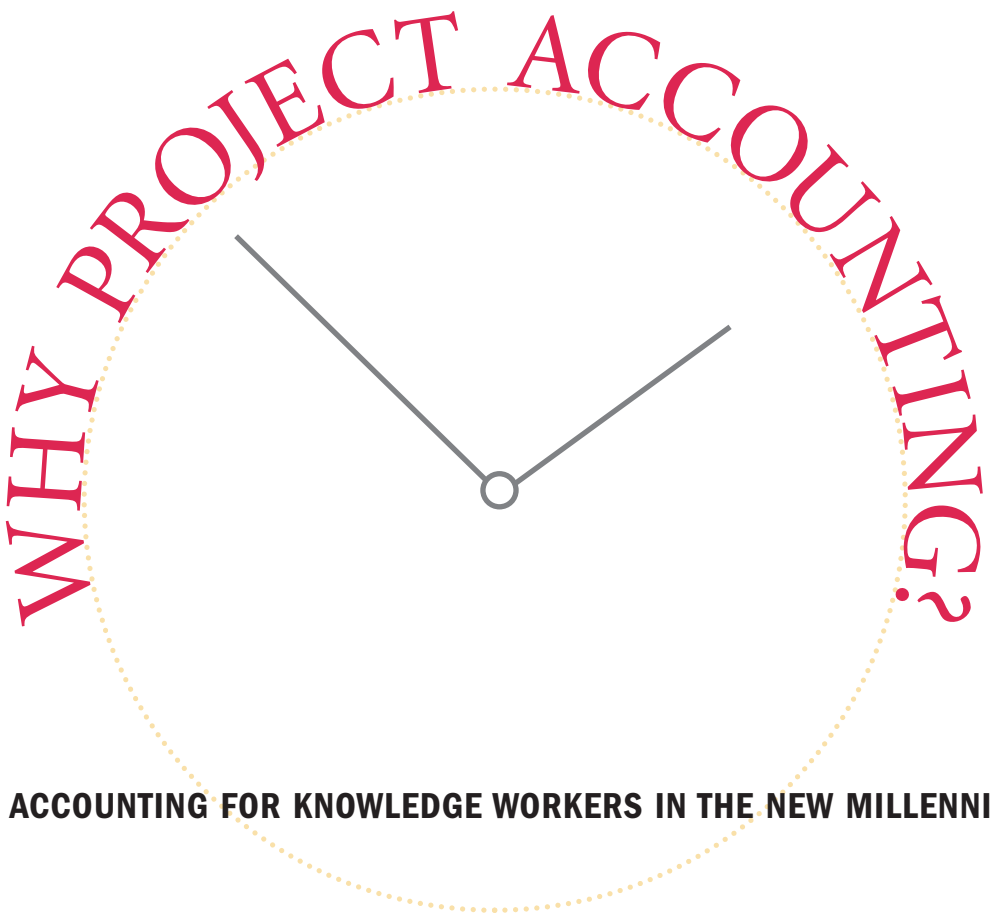


IT'S ACCOUNTING FOR KNOWLEDGE WORKERS IN THE NEW MILLENNIUM.

BY CURT FINCH

Think about what your parents and grandparents did for a living. Chances are they were farmers or factory workers for at least a portion of their careers.

The era of manufacturing and farming, however, has given way to one of knowledge work. This is old news in the U.S., but, if current trends continue, nearly everyone will become some sort of knowledge worker in our lifetime. The tools for such a shift are becoming more widely available. According to Gapminder.org, a nonprofit group that develops and provides free software to visualize human development, telephone and Internet usage in countries from Cameroon to Peru has increased up to 1,000%. Internet access is penetrating very poor economies much faster than prior technologies did.

A knowledge worker is someone who works primarily with information or who develops and uses knowledge in the workplace. The term was coined by Peter Drucker in 1959. If you sit in front of a computer throughout most of your day, then you're a knowledge worker. Lawyers are knowledge workers, as are webmasters, accountants, and software engineers.

Historically, farmers invented simple accounting and writing systems to track trades and debt. Manufacturers required materials cost accounting. But most knowledge worker organizations today don't know their costs on a per-project basis at all. In the knowledge economy, understanding production costs requires a new approach—project accounting.

Companies like Wal-Mart, Dell, and Archer Daniels Midland exemplify how well the problem of materials management is already solved. Knowledge, process, and project management, however, are still relatively nascent fields.

Out of our 30-millennia history, we have seen the cost of knowledge workers rise to be a significant portion of the economy only in the last 50 years or so. According to data collected by the United Nations, in Texas in 2003, 48% of the workforce fell into the knowledge worker category, up from nearly zero in 1900. If these trends continue, knowledge work will eventually encompass the majority of workers globally.

What does all this mean? For the first time since Sumerian farmers invented accounting thousands of years ago, business owners don't know their costs. If you don't know your costs, you don't know where you're profitable. And if you don't know where you're profitable, you can't steer your company to success.

WHAT IS PROJECT ACCOUNTING?

Project accounting is the practice of creating financial reports designed specifically to track the financial progress of projects, thus leading to more effective project management.

Stephen Covey argues persuasively in his book *The 7 Habits of Highly Effective People* that you should track your time even if it's just for yourself. If you do, you will certainly be surprised. In addition, if you have more than five people or so in your organization and they are working on many projects or within many processes, it's time to start thinking about implementing time tracking.

As management accountants know well, if you understand your costs, you can run your business. Otherwise, you're flying blind. If you have 100 people in an R&D group and you aren't tracking time, then you may be wasting the lives and work of a significant percentage of your employees. Based on my experience, odds are you have them working on projects that either the market isn't interested in, are over budget, or are otherwise in the ditch—and you don't even know it.

OVERCOMING RESISTANCE

Guiding your company forward to a time-tracking environment requires changes to your corporate culture. The biggest impediment to success in project accounting is employee resistance to data collection. Why do people hate to track their time so much?

Reason #1—Reporting time seems to threaten status.

For salaried people, especially if they once worked in an hourly "time clock" environment, reporting time can make them feel demoted. (I disagree with the conventional wisdom that "professional" people are more trustworthy and need less supervision than "blue collar" people.)

Reason #2—"What if I find out that I don't work as much as I like to think?"

Some people—often the most productive ones—garner self-esteem from the large number of hours they work. But sometimes they're not sure if they believe their own braggadocio; the thought of finding out the truth is scary.

Reason #3—Time is a bad metric for effort or productivity.

Knowledge workers know that managers, who have the power to reward some people over others, often forget the vague and aggregated metrics of real productivity in favor of simple tangible numbers such as time records. Managers may take the easy path of rewarding employees based on time spent rather than developing more subtle and appropriate measures of real productivity. Time spent isn't in itself evidence of productivity; it just helps you understand your efficiency once you know what was really produced. Workers know that some managers will

be too lazy to consider some of those harder-to-obtain metrics.

Reason #4—"I'm too busy."

The most responsible, busy employees—the productive ones whose time is in highest demand—will eventually have to stop working to uphold the primary mission of the company in order to fill out a time sheet. The star employees tend to procrastinate, subordinate the task, or even refuse to do it, which creates flawed records.

On the other hand, the malingerers and marginal producers will often create perfect time records and never submit them late. This creates an impression in the minds of both that the whole exercise is worthless, when in fact it's critical.

REMEDIES

The most effective way to get people to do anything is to make sure they understand what's in it for them. In the case of payroll for hourly workers, it's easy because they want to get paid. In the case of billing automation, it's revenue for the company (i.e., a successful company). Most people understand this because they care if their company succeeds.

Project accounting is more abstract. Bad project accounting leads to unnecessary overtime; stressful, blown schedules; bad estimates; and cancelled projects. Citing specific examples from your company's history where accurate time collection could have made things easier for your employees helps get them on board. One pharmaceutical company that I've dealt with in the past had no way of collecting the data necessary to determine the true cost of projects. This led to years of using an inaccurate project estimation formula and methodology, which ultimately led to an inability to get drugs through the trials in the predicted time period. Since only one drug could go through this process at a time and had to be completed before the next could be started, this caused delays in the market releases of certain blockbuster drugs. Since the patent on these blockbuster drugs expired regardless of when the drug reached the market, causing a dramatic drop in the drug's profitability, this misestimation was causing the loss of hundreds of millions of dollars in revenue.

Conversely, The Kernel Group (TKG) provides an example of excellent project accounting. TKG was a consultancy that fixed software defects (bugs) for IBM in the 1990s, and its employees kept rigorously accurate records of the time it took to fix each one. They charged a fixed price of $2,000 for each bug. When IBM decided to bid the work out at one point, TKG knew the cost of bugs on a number of different dimensions—by employee, by software subsystem, by IBM department, by customer name, etc. This enabled them to bid in such a way that they could get more money on bugs where they had unique expertise and to bid the absolute minimum to break even on bugs where they knew a competitor could successfully do the work. The ultimate result was that TKG made more money for the same work, and the competitor that was chosen for the remainder of the work quit the business because they couldn't make money. Hence TKG scored a strategic victory that was worth millions of dollars to them from mere time data.

You can makes changes to your company's culture in manageable steps by adopting a multiphase rollout approach that leads to per-person, per-project profitability (P5), shown in the sidebar.

P5—Per-Person, Per-Project Profitability

LEVEL 1 — NO TRACKING
Overcommitted, processes abandoned in crisis, can't repeat past successes

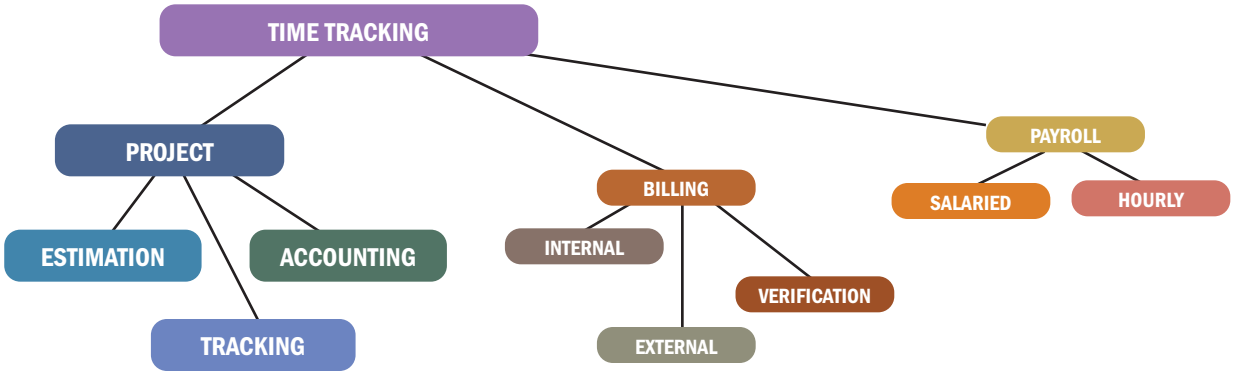
LEVEL 2 — MINIMAL TRACKING
Track project labor hours on all projects—basic costs/schedules visible to management

LEVEL 3 — BASIC TRACKING
Track time/rates and expenses on all projects—complete direct costs are known

LEVEL 4 — ADVANCED TRACKING
Allocate indirect costs

LEVEL 5 — EXPERT TRACKING
Integrated with CRM or accounting, giving per-person, per-project profitability, aka nirvana.

Functions of Time-Tracking Data



TIME FOR PROJECTS

Project Estimation
Using time and expense data from similar past projects to predict future project costs and schedules.

Project Tracking
Knowing how close to "done" a project or subproject is.

Project Accounting
Understanding the cost to date of a project.

TIME FOR BILLING

Internal Billing
Creating split bills to departments within your company that are using your services.

External Billing
Billing clients, sometimes exorbitantly. Like lawyers do.

Billing Verification
Proving that contractors and outsource personnel have sent you accurate bills.

TIME FOR PAYROLL

Salaried Payroll
Leave tracking.

Hourly Payroll
OT calcs, punch rounding, lockouts.

Tying bonuses or other benefits to complete data collection is often used in customer relationship management (CRM) tools to adjust sales commissions. The same can be done for other forms of data collection.

A quality software solution can generate dashboards and graphs to show managers which departments and people are entering their time consistently and completely and which aren't. This helps managers understand early on who needs a nudge (to the degree a top-down approach works in the company's culture). It can also generate automated e-mail reminders to employees who haven't yet recorded their time.

IMPLEMENTING PROJECT ACCOUNTING

Once you see the need for and benefits of time tracking and choose an appropriate software solution, here's how to put it into action.

1. Prepare. Get a complete list of the projects or processes for which you need to understand costs, along with a list of the employees who spend time on that work. Begin with the end in mind: What do you want the reports to look like? Decide who will own the system, and begin populating it with employees and projects.

2. Get most of your people to start tracking time. Start measuring adoption by seeing how many employees you can get to track their hours and how often they do it. Your data will be best if people track their time daily or even more frequently. Recording what you did a week ago is useless. Who remembers what they ate for lunch last Thursday?

3. Get everyone tracking time and expenses with pay rates. Now that you've entered data in the system and employees are tracking their time, you have an accurate and complete list of projects. Say, for example, you review the data and see that employees spent more time on some projects than expected. Real data has already surprised

you. Now it's time to guide your company to the next level. Compute a pay rate for each person in the company, and enter it into the system. Where appropriate, ask employees to record mileage and travel expense data. Further enforce adoption across your entire employee base. At the end of this step, you'll receive per-project, per-person direct cost data. Indirect cost data will be applied next.

4. Provide for calculations of indirect costs, and choose formulas for spreading those costs. Expenses in general and administrative areas such as accounting, marketing, and office space can be organized by project cost, project revenue per person, square footage of space used, or countless other subjects. Often, two levels of indirect cost may be necessary. For example, if a company has multiple projects for one customer, some partially indirect expenses may apply to the customer but not to a specific project. There should be a formula for spreading that "partially indirect" cost over more than just that one customer's projects.

5. Revenue integration. Tools like Salesforce.com or SugarCRM provide a great way to track bookings (and depending on your business, even revenue). Integrating your time accounting system into these systems can give you a profit report, or at least an approximation of one. Integrating the system into QuickBooks or other accounting systems can connect time periods for revenue recognition to cost, giving a good estimate of profit on a per-person, per-project basis. For R&D departments, IT organizations, or other internal knowledge worker groups, proxies for revenue such as "business value delivered" can be used.

You've now reached time-tracking nirvana—a measurement of per-person, per-project profitability. At every step, your situation is better than it was before.

Once all of the above steps are complete, you'll know which employees are making money for the company and which aren't, which projects are profitable and which aren't, and which customers or customer groups are profitable and which aren't. This is powerful information that can affect your strategy going forward, your rewards and compensation systems, and many other aspects of your business, just as it did for TKG.

PROBABLE FUTURE OF PROJECT ACCOUNTING

What will the future of project accounting look like?

The Achilles' heel of project accounting is data collection, mainly time tracking.

The Achilles' heel of time tracking is compliance and adoption. The best software solution will have built-in e-mail reminders and adoption dashboards to somewhat alleviate that problem. The future may also allow speech input and integration with popular tools such as PDAs, call-center software, and cash registers to gather time records automatically.

The software industry is shifting from customers installing software at their physical locations to renting Web-based software over the Internet on a monthly basis. On-demand Web solutions mean you don't have to install anything more than a browser (or convince your cranky IT people to help you).

It's moving this way because customers want it—and so do reputable vendors.

Currently, most software companies get their revenue from "shelfware" (software that is rarely used and ends up on the proverbial shelf). Many popular programs (which customers buy up front) can be complicated and difficult to use, which makes it hard to achieve maximum benefit. Once a customer has paid for the programs, the software company has little incentive to follow up and ensure that they work properly.

But things may be improving. Companies like Journyx, KaleidaCare (a management and reporting system for social service agencies), and Affiniscape (which assists with association management) are quite successful in leasing software over the Web.

If customers sign up for a monthly service from a company and the solution doesn't work, they can cancel it. This gives software providers incentive to pay attention to customer usage, understand whether or not the technology is providing business value, and strive to increase its value. With this model, everybody wins because interests are more aligned.

And that's a future everyone will profit from. ■

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