



FINANCIAL REPORTING CAPABILITIES OF CONSTRUCTION ACCOUNTING SOFTWARE

The right software fit means a program that meets accounting and bookkeeping needs and helps run the business

BY FRED ODE

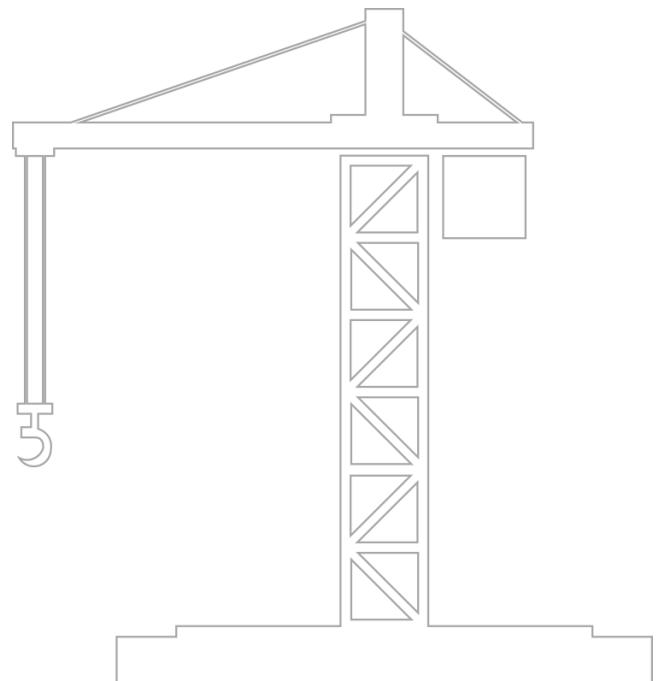
FINANCIAL REPORTING CAPABILITIES OF CONSTRUCTION ACCOUNTING SOFTWARE

The right software fit means a program that meets accounting and bookkeeping needs and helps run the business

Zeroing in on the appropriate accounting software for construction clients can be a daunting task, even for the most seasoned CPA professional. Recommending a solution that will meet the contractor's accounting and bookkeeping needs is just one part of the equation. The real challenge lies in finding the right technology to help construction companies run their businesses. Too often, construction accounting packages are chosen for the wrong reasons and, sometimes, by the wrong people. Contractors with little or no accounting background may select a program based on a friend's recommendation, giving no thought to construction-specific issues such as progress billing, percent-complete reporting and job costing. A CPA advisor, on the other hand, may select a program for a client because it's the application with which the CPA is most familiar. While the program may provide easy access to detailed general-ledger transaction histories and aging reports, the contractor may struggle to update progress billings, track change orders and process payroll. When selecting a construction accounting application, reporting is key, but so are the features that meet the day-to-day needs of the operator.

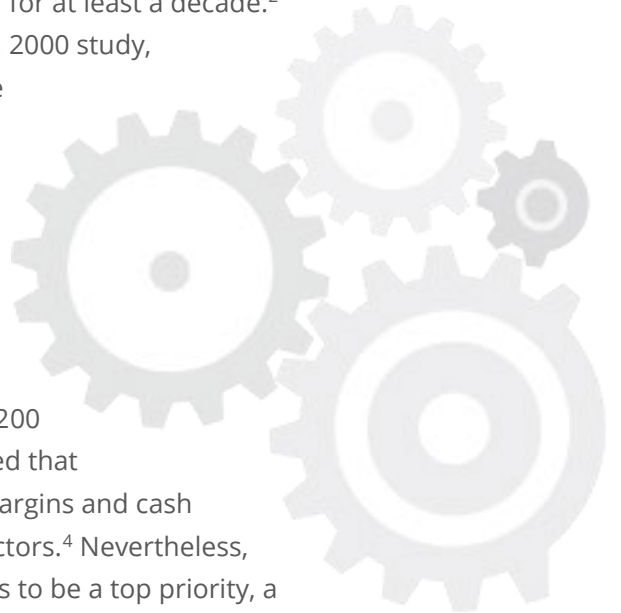
REPORTING IS KEY

The primary objective of an accounting system is to "summarize transactional data into useful



management reports that manage the business."¹ Construction companies, which require a significant amount of data collection, processing and interpretation, are therefore extremely dependent upon their accounting system for accurate and timely reporting. Day to day, quarter to quarter, construction owners need to know their numbers in order to survive in the long term. From 2010 to 2012, an average of approximately 10% of the total number of operating construction firms died each year, nearly half of which had been in operation for at least a decade.² What explains the industry's rate of failure? According to a 2000 study, "Business Failure in the Construction Industry," 83% of the construction company failures were due to budgetary and macroeconomic issues.³

If, as the saying goes, cash is the lifeblood of the construction firm—and accounting its heart—then financial reporting must surely be the brain that keeps it pumping smoothly. It's not as though contractors are unaware of the challenges. A 2006 survey of more than 1,200 North American construction presidents and CEOs revealed that financial concerns—including high cost of capital, profit margins and cash flow—rank high on the list of serious problems for contractors.⁴ Nevertheless, while a clear understanding of company financials appears to be a top priority, a great many contractors are unsure how this can be accomplished. Construction companies both large and small need to regularly perform financial reporting on two levels in order to monitor and manage the overall health of their companies. It becomes the job of the accounting system, therefore, to produce both executive-level and project-level reports to help construction owners and executives run their businesses.



Executive-Level Reports

Executive-level reports have the ability to provide a bird's eye view of just how well—or poorly—a company is doing. Unfortunately, in the construction situation, many high-level reports are often

¹ Kieso, Donald E., Jerry J. Weygandt and Terry D. Warfield, *Intermediate Accounting*, Ch. 1 (10th ed. 2007).

² U.S. Census Bureau, Business Dynamics Statistics. N.b., data on industry deaths do not distinguish between closures and failures.

³ Arditi, David, Almula Koksul and Serdar Kale, *Business Failures in the Construction Industry* (2000).

⁴ The 2007 Construction Industry Forecast, ORC Macro, commission for CIT Group, Inc., 9 (2006)

produced solely for the bank, the surety company, or the accountant at tax or audit time. Lacking a real understanding of what these reports can provide—as well as the know-how to produce accurate reporting—many contractors live in financial limbo, never really knowing how the company is performing until it's too late.

Obviously, construction owners and executives should review and understand their company's income statement and balance sheet on a regular basis. But in addition to that, the complex nature of construction requires that management turn to job-specific summary reports (for example, one-line-per-job reports) to help them manage their businesses. At a minimum, construction owners need to understand and regularly review these four key, executive-level reports: Gross Profit by Job, Job Overhead Allocation, Over/Under Billing (or, Work in Progress, Percent Complete) and Cash Flow by Job. Equally important, each one of these reports should be easily accessible—in one format or another—from the contractor's own accounting system.

Gross Profit by Job. No matter what type of accounting application is in use, including manual or spreadsheet applications, contractors should have the ability at any point in time to produce a gross profit by job report. This report is a corner-piece of the financial puzzle. It provides a broad overview of the profitability of each job by listing total contract sales less direct job costs. (See Exhibit 1.) With just a glance, contractors can tell how their jobs are doing in terms of gross profit. Unfortunately, this report only takes direct costs into account and does not address such issues as overhead allocation and over/under billing. Far too many contractors view this report as the only measure of their degree of financial success on each job.

Exhibit 1 ABC Contracting Company Sample Gross Profit Report

Job #	Job Name	Contract with Change Orders	Total Income	Labor Costs	Material Costs	Equipment Costs	Subcontract Costs	Misc/Other Costs	Total Costs	Gross Profit	Gross Profit %
95999	Main Ave. Bridge	676,000	233,000	36,142	9,400	34,304	9,600	95,376	184,822	48,178	21
96020	Chester Ave.	860,000	494,500	72,477	141,671	29,000	112,581	56,336	412,065	82,435	17
...
Total:		6,628,000	3,733,278	607,322	916,964	187,262	839,277	591,547	3,142,373	590,905	16

Job Overhead Allocation. Of the more than 600,000 U.S. construction firms operating today, only a slim minority perform overhead allocation as part of their accounting procedures.⁵ Of those that do, it can be anyone's guess how many actually perform it correctly. With the help of an accounting professional, contractors can select the best method for their businesses among the many possible for distributing indirect expenses to their jobs. Once a method is selected, however, technology in the form of construction-specific accounting software can automate this all-important task to provide owners with a highly accurate picture of profits. Using a pre-calculated method based on

⁵ U.S. Census Bureau, 2012 County Business Patterns and 2012 Economic Census.

labor hours, this report allows management to see the true profit or loss from each job. A contractor's construction-specific software automatically allocates these costs across jobs with the posting of each cost, thus eliminating the need for additional data entry or exporting to spreadsheets. (See Exhibit 2.)

Exhibit 2 ABC Contracting Company Sample Job Overhead Allocation Report

Job #	Job Name	Total Income	Material & Sub Costs	Labor Costs	Other Costs	Total Costs	Gross Profit	Gross Profit %	Allocated Overhead	Overhead %	Net Income	Net Income %
95999	Main Ave. Bridge	233,000	19,000	56,638	109,184	184,822	48,178	21	36,248	9	11,930	5
96020	Chester Ave.	494,500	254,252	72,477	85,336	412,065	82,435	17	46,385	12	36,050	7
...
Total:		3,733,278	1,746,242	627,818	758,313	3,142,373	590,905	16	401,800	100	189,105	5

Over/Under Billing. Many contractors hire their accountant to produce Work in Progress (WIP) Reports on an annual basis to meet the requirements of banks and surety companies. But just as a construction CPA uses the WIP Report to determine a contractor's most current financial position and solvency, the construction-business owner needs to run his or her own Over/Under Billing Reports on a regular basis. With each new O/U report, the owner has the opportunity to address under-billings on a job (which could cause serious cash flow problems) or adjust over-billings (which inflate the company's profits if unaccounted for). (See Exhibit 3.)

Construction accounting software applications should be capable of automatically producing this report in a format that can be easily reviewed and acted upon by management. When reviewed regularly, the O/U report can provide management with a more accurate measure of profitability, as well as alert them to problem jobs while there is still time to make corrections. Using an integrated job-costing system, this report would allow for the automatic adjustment of the company's income statement so that profits are not over- or under-inflated.

EXHIBIT 3 ABC Contracting Company Sample Over/Under Billing Report

Job #	Job Name	Estimated Contract	Est. Cost	Est. Profit	Material & Other Costs	Labor & Sub Costs	Total Cost	% Complete	Recognized Profit	Total Billings	Gross Profit	O/U Billing
95999	Main Ave. Bridge	676,000	596,132	79,868	118,584	66,238	184,822	31	24,762	2,333,000	46,176	23,416
96020	Chester Ave.	860,000	651,500	208,400	227,007	185,058	412,065	63	131,790	494,500	82,435	-49,355
...
Total:		6,503,000	5,420,817	1,082,183	1,675,279	1,467,094	3,142,373		564,453	3,733,278	590,905	26,452

Cash Flow by Job. Because cash is king for every construction company, common business practices call for owners to practice regular cash flow reporting, on a monthly, weekly or even daily basis, is possible. Furthermore, it is important to look at cash flow per job, not just on a company-wide basis, because it helps pinpoint exactly where the drain needs to be plugged. Once the work of cash-flow projections has been completed during the estimating and scheduling phases, monitoring

cash in and cash out for each job becomes simple with the use of a good construction-specific accounting package. This sample cash flow report (*see Exhibit 4*) shows the exact net cash flow for all current jobs, including net cash flow percent to billings. It gives management the ability to quickly determine if the company has the financial resources and lines of credit available to handle the anticipated work volume.

EXHIBIT 4 ABC Contracting Company Sample Cash Flow by Job

Job #	Job Name	Total Contract	Billings	Annual Costs	Gross Profit	Outstanding A/R	Cash Collected	Outstanding A/P	A/P Cash Paid Out	Payroll	A/P Cash & Payroll	Net Cash Flow	Net Cash Flow % to Billings
95999	Main Ave. Bridge	676,000	233,000	184,822	48,178	34,000	199,000	19,000	109,184	56,638	165,822	33,178	14.2
96020	Chester Ave.	860,000	494,500	412,065	82,435	67,670	426,830	104,629	195,200	112,236	307,436	119,394	24.1
...
Total:		6,628,000	3,733,278	3,142,373	590,905	1,605,348	2,127,930	1,443,291	765,532	933,550	1,699,082	428,848	11.5

PROJECT-LEVEL REPORTS

At the project level, construction-specific accounting systems are also highly capable to transform job-cost data into essential reports that answer the how, why, where and when details of every job. These reports provide a narrower focus than executive-level reports to help owners and managers (1) identify where the job stands today, (2) predict where the job is headed and (3) create a database of history that contractors can use for future bidding, evaluation of jobs and better decision making. Equally important, these reports help project managers stay on track and stay accountable throughout the life of the project.

There are probably as many different project-level reports as there are construction companies. Electrical contractors, for example, may want to run significantly different project-level reports than heavy highway or excavating contractors. The type of work a contractor does—and length of the projects—all affect the type of reporting needed. In all cases, however, it is vital that a contractor use construction-specific software to produce them. While many accounting software applications will provide the ability to break down original budgeted, committed and actual costs by cost categories (e.g., phases, cost codes, cost classes, etc.), the right software for contractors needs to go much further. First, accounting software for construction must maintain and report both the original and *revised* budget figures (i.e., original budget plus change orders), something off-the-shelf packages don't always handle. Even more importantly, the accounting and job costing must be fully integrated, meaning that the system should require the entry of job-cost data wherever relevant. For example, all accounts-payable transactions should require the entry of a job and allow distribution into the proper cost categories. Income too should be attributed to a specific job, and, if desired, cost categories. When this information is fully integrated, users not only are more efficient; their reports also are more accurate and complete.

In addition, a contractor's job-costing system should have the capability of running reports the way each contractor—or project manager—wants to see them. The system should also offer not only industry-standard reports but also customizable report writers that can create an endless array of reports, capable of showing cost breakdowns on many levels—from total job costs to labor costs per task, to costs per cost category and costs per units of measure, etc. And while it is certainly possible to create and maintain a *manual* job-costing system (and then dump this information into spreadsheets for project-level reports), it would not be easy, efficient or wise for a contractor to do so.

When selecting a system and designing project-level reports, a CPA advisor should assess the types of jobs the contractor performs to create the most useful reports. For example, unit-based performance reporting may be important to a heavy-highway contractor who needs to track productivity by the foot or yard, whereas material-based quantity tracking might be more important to an inventory-heavy electrical contractor. Regardless of the trade, however, the reports should contain enough detail and be timely enough for managers to recognize problems with productivity, cash flow or estimating as they are occurring on the job. What follows is merely a sampling of the project-level reports that a mid-size heavy-highway contractor might require to stay on top of current jobs. Such reports should be simple to run with the help of a flexible, user-defined job-cost construction accounting system. (See Exhibits 5, 6 and 7.)

EXHIBIT 5 ABC Contracting Company Sample Job Status Report Job #95999

Cost Code	Description	A	B	C = A + B	D	E	F = E * C	G = D - F
		Original Estimate	Changes to Estimate	Revised Estimate	Costs to Date	Percent Complete	Should Be Costs	Over/Under Estimate
2000	Site Work	58,002	4,500	62,502	36,948	64.4	40,237	-3,289
2010	Subsurface	29,050	4,000	33,050	20,285	86.1	28,449	-8,165
2030	Site Prep	280,000		280,000	47,092	19.4	54,256	-7,164
...
Job Totals:		583,832	12,300	596,132	184,822	1,605,348	222,400	-37,577

EXHIBIT 6 ABC Contracting Company Sample Labor Report Job #95999

Cost Code	Description	Est. Labor	Labor to Date	Est. Qty	Qty to Date	Remaining Qty	U/M	Eliminated Labor U/C	Actual Labor U/C	Remain Labor Based on Est.	Remain Labor Based on Act.	Gain(Loss) on Est. U/C	Gain(Loss) on Ac U/C
2000	Site Work	14,000	7,685	8,500	5,472	3,028	SF	1.65	1.40	4,987	4,253	1,328	2,062
2010	Subsurface	8,500	7,483	7,500	6,456	1,044	SF	1.13	1.16	1,183	1,210	-166	-193
2030	Site Prep	38,000	6,048	12,200	2,364	9,836	SF	3.11	2.56	30,637	25,164	1,315	6,788
...
Job Totals:		97,880	36,142	49,400	24,482					57,791	50,127	3,946	11,231

EXHIBIT 7 ABC Contracting Company Sample Production Report Job #95999

Cost Code	Current Description	Hours	Hours to Date	Est. Hours	Est. Qty	Qty to Date	Current Qty	Est. Production	Production to Date	Current Production	U/M
2000	Site Work	120	304	500	8,500	5,472	2,124	17.00	18.00	17.7	SF
2010	Subsurface	120	296	600	7,500	6,456	2,760	12.50	21.81	23.00	SF
2030	Site Prep	120	288	1,750	12,200	2,364	852	6.97	8.21	7.10	SF
...
Job Totals:		720	7,768	5,085							

EVALUATING A CONTRACTOR'S REAL NEED

Not every contractor has the people and processes in place to take advantage of reporting capabilities available within today's sophisticated construction-accounting systems. And not every contractor has the number knowledge or the financial management commitment to make switching software applications feasible or even worthwhile. Contractors should get evaluation help from CPA consultants to assess their real needs and ask some hard questions: Is the contractor's current accounting system meeting his or her financial reporting needs? If not, are contractors ready and willing to produce financial reports on a regular basis? Are they ready and willing to put processes in place to collect accurate job-cost data in a timely manner? Do they have people in place capable of customizing and analyzing financial reports?

Obviously, when evaluating construction accounting software products there are other important issues to consider beyond the system's reporting capabilities. The specific needs and the unique qualities of the organization must be considered as well. For example, along with tracking job costs, a service-oriented contractor might also have requirements such service dispatch or service maintenance. In contrast, a heavy-equipment contractor may require a system that can track equipment usage by job, whereas a large general contractor might need an accounting package that can manage subcontracts as well as scheduling and document control. As with all technology purchases, there are always trade-offs when attempting to select a perfect-fit construction accounting solution. A gentler learning curve, for instance, may have to be sacrificed for flexibility and greater reporting capabilities. Or a larger up-front investment might be required to achieve higher efficiency and productivity down the line.

CONCLUSION

The construction industry's notorious underutilization of technology is steadily changing. Construction business, reacting to a combination of persistent competition, rising costs and a favorable economic outlook, are looking to technical solutions to help improve efficiencies and overall financial management. According to CFMA's *2011 Construction Industry Annual Financial Survey*, 80% of respondents implemented new technologies in the past three years as strategy to improving their profitability.⁶ Reporting capability and flexibility are perhaps the most valuable aspects of any construction accounting software program. Numbers are virtually useless unless they can be placed in a format, or report, that explains and extrapolates their meaning. And even though accounting software can't prevent "garbage-in, garbage-out" data processing mistakes, a properly

⁶ Ellis, Michael J. and Colleen Rozillis, "2011 Annual Financial Survey: Executive Summary," *CFMA: Building Profits*, November/December, 2011, 29.

designed application can assuredly make life easier for the contractor intent on running a financially sound business.

****A version of this article originally appeared as "Financial Reporting Capabilities of Construction Accounting Software," Fred Ode, Journal of Construction Accounting & Taxation July/August (2007) Thomson Reuters/RIA.*



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Published in Construction Accounting & Taxation



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