

ON THE JOB WITH Integrated Construction Software

by Joe Stoddard

Kick those muddy boots up on your desk and relax — you've just loaded up one of today's all-in-one construction software packages. From now on, it's one-time data entry and "seamless integration" with every report you need to make your first million, all at the click of a mouse, right? The truth is, today's multifunction construction software *can* help you get your act together and might even help your bottom line. But, as the five contractors you're about to meet will tell you, getting there involves a lot of hard work, and there are no magic bullets. These five companies did their homework and climbed the software learning curve — and lived to tell about it.

Process and Procedure in a Box

Allan Edwards, President
Allan Edwards Builder Inc.
Houston, Texas
www.aedwards.com
Type of business: Custom homes
Years in business: 25
Annual sales: \$4 million
Software: BuildSoft, Golden, Colo.,
720/746-0838, 800/999-8322,
www.buildsoft.com

When Allan Edwards bought BuildSoft at the NAHB show in 1995, he fit the typical small builder profile: He used the usual spreadsheets for estimating and QuickBooks for accounting, no scheduling software, and no purchase orders. He bought the program without a lengthy evaluation. "Everyone says you have to have the right managerial processes in place before buying software, but I didn't and it still came out okay. I took some group training classes to get up to speed with the BuildSoft philosophy and then dug in," says Edwards. He implemented BuildSoft in stages, starting with accounting, then estimating, job costing, and finally purchase orders.

Instead of focusing on accounting with some project management features tacked on, BuildSoft focuses on project management first (see Figure 1) and does the accounting in the background. The program is driven by the idea that time is money and

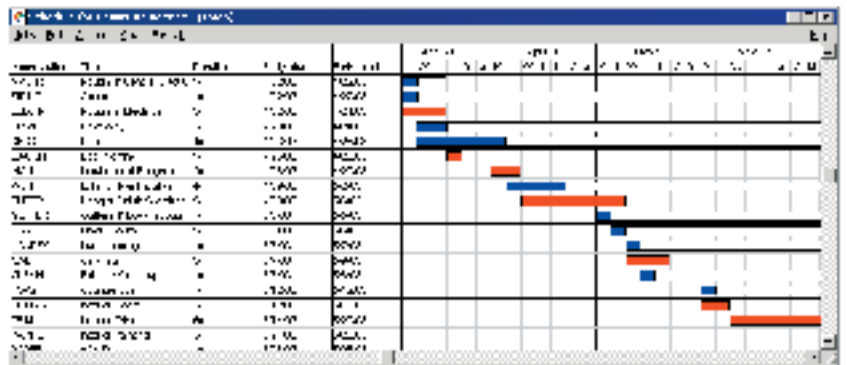
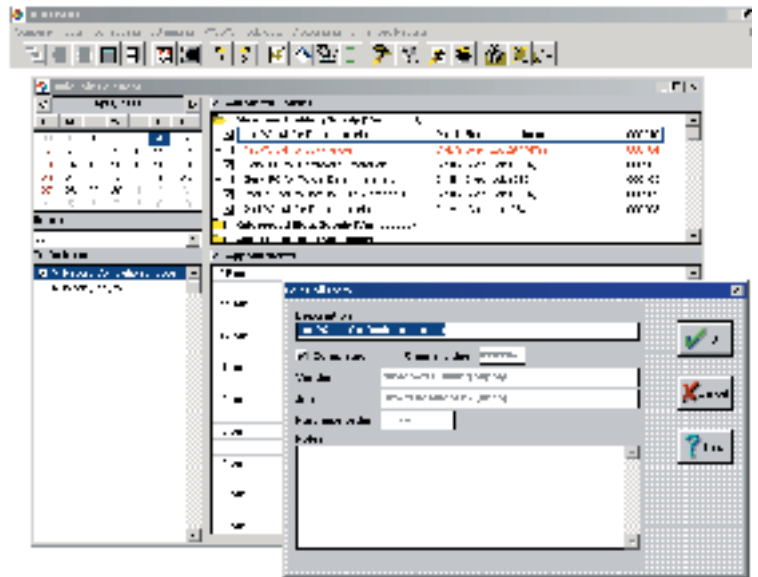


Figure 1. Unlike traditional accounting-based programs, BuildSoft's focus is on efficient project management (top). The BuildSoft philosophy is that a project should be driven by the schedule (bottom) and by strict use of job budgets and purchase orders. The more faithfully cost exceptions are entered into the system, the more accurate future jobs become. Users report real savings from the approach, so long as subs and suppliers are on the same page.

by keeping a tight schedule more money will end up on the bottom line. It also attempts to plug the holes in a builder's cash flow by requiring that all job-related purchases be budgeted in the project and supported by a fixed-price purchase order. Of course, there is no way to eliminate ad hoc purchases, but the more faithfully the user inputs them, the more accurate future projects will be.

"BuildSoft forced me to do those things that builders hear about at seminars and conventions but never get around to," says Edwards. "Of course you've got to recognize the need for these things in the first place and be willing to pay the price of the learning curve that any integrated software is going to have. Running a home building company is complicated, and the software is going to be complicated, too. It was a struggle, but I finally made it. In retrospect, sticking with BuildSoft did make me more efficient and more profitable."

Costs and Setup

Edwards paid \$4,500 for a single seat of BuildSoft in 1995 and installed and configured the software himself. BuildSoft supports network installations, but since Edwards handles all his own office work, he uses the software on a single stand-alone computer running Windows 98.

Training and Support

Edwards found BuildSoft's group training sessions to be a good value in helping him understand the BuildSoft "philosophy" but says not to rush on-site training: "One mistake I made early on was hiring a BuildSoft consultant to come to my office for one-on-one training before I was ready for it — that is, before I understood the totality of the software and the fundamental concepts behind how to use it."

Strengths

BuildSoft uses a single database at its back end, which allows one-time data entry and makes for tight integration between its various functions. Since the program is procedure driven, users can concentrate on project management, while most of the drudgery of financial accounting happens in the background. In addition, getting a tight rein on the schedule and job costs will add to your profit margin on every job. Edwards says, "I can save as much as \$10,000 on a million dollar project, and that's straight to the bottom line."

Weaknesses

The BuildSoft philosophy of tight schedules coupled with fixed-price purchase orders requires cooperation from subs and suppliers, so it might not work for everyone. Unless your trading partners are willing to guarantee pricing and delivery, many of the advantages of using BuildSoft are lost. The BuildSoft user interface and back end have not been updated much since Windows 3.1 days, which means that many modern Windows commands and conventions will not be available. A 32-bit upgrade, planned for early 2003, promises to modernize the interface.

Purchasing Advice

Says Allan Edwards: "My advice to a new user of any integrated software would be for them to try to learn the concepts behind the software first. Attend a few group seminars if they are available, set up a test company to practice on for at least two months before going live, and, if you don't understand double-entry accounting, take a course at a community college before trying to deploy new accounting software."

Leverage What You Already Know

David Parks, President
Triad Building Company, LLC
North Cashiers, N.C.

Type of business: Land developer and home builder

Years in business: 2

Annual sales: \$2.5 million

Software: BuildWorks, Synapse Software, Henrietta, N.Y., 716/321-3310, www.synapsesoftware.com

Most contractors start out building and then dabble in land development, but David Parks went the other way: His company, Triad Building, went from land development into home building. Parks decided that being able to offer a turnkey home to Triad customers would boost lot sales and improve profits, but finding the software to help him accomplish that proved difficult.

A false start with a construction-specific accounting pack-

age (the maker is now out of business) sent Triad scrambling to off-the-shelf QuickBooks Pro, but that didn't work either. "We spent an unbelievable amount of time and money — probably wasted at least \$20,000 in labor alone — trying to adapt QuickBooks to our business before we figured out that it wasn't well suited to what we were doing," says Parks. Triad's business consultant happened to be a BuildWorks reseller and thought the program would be a good fit since BuildWorks (previously called GCWorks) creator Jim Erwin was a working home builder and developer. "I liked the BuildWorks marketing materials," Parks says, "because they gave me a total picture of the program's capabilities. But what really sold me was when I found out that the developers were in the same business I was and were using the system themselves."

BuildWorks is "add-on" software that configures generic QuickBooks Pro to make it construction specific (Figure 2), as well as providing dozens of Microsoft Word and Excel forms and templates, including accounting and estimating tools,

to mention my own time. Granted we had other business issues we needed to take care of first, but even with perfect software, there is still a great deal of work changing from one system to another."

Training and Support

Any construction software package will require either telephone or in-person support as the system is put in place. Having been down the software road before in other businesses, Parks knew to add a significant amount of money over and above the purchase price of the software to facilitate training. "In my opinion, manuals are not a substitute for that human interaction, and you need to budget for hands-on training of any package purchased for at least the first year, maybe more," he says.

Strengths

Since BuildWorks uses QuickBooks and Microsoft Office, which many builders already have, the learning curve should be much shorter than for some of the all-in-one products. BuildWorks is totally forms based, which means everything can be edited and tweaked to meet the needs of a wide

variety of contractors. And it works with both PCs and Macs, making it ideal for mixed-environment offices.

Weaknesses

The flip side of flexibility is usability. Because BuildWorks relies on two separate software components in addition to its own files, it is not as slick as an all-in-one package might be. Users will have to live with opening and closing QuickBooks, Word, and Excel and will have to "cut and paste" where an all-in-one program might flow data more easily from module to module.

Purchasing Advice

Says David Parks: "It might appear expensive on the front end, but I believe that contractors buying construction software should budget to have a representative from the company visit their office to set the system up and marry it to their business. All employees, outside accountants, and anyone else interfacing with the software system should be involved with those on-site sessions. Be sure to set up trial data that mirrors how you do business, starting with an estimate and carrying it through the construction process."

Accounting Comes First

Dale Nikula, President

Dale R. Nikula Co., Inc.

Dennisport, Mass.

www.capecodbuilders.com

Type of business: Custom builder-remodeler

Years in business: 8

Annual sales: \$3.6 million

Software: Intuit Master Builder, Intuit Construction Business Solutions, Sebastopol, Calif., 888/429-9941, <http://construction.intuit.com>



Like many current Master Builder users, Dale Nikula moved up when it became apparent that his company was outgrowing QuickBooks Pro. Doing a couple of custom homes per year and up to 30 remodeling jobs, including additions, whole-house renovations, kitchens and baths, and some home repair, his company needed the ability to better integrate and track change orders, which QuickBooks could not provide (Figure 4). After researching software online and at trade shows for a year, Nikula purchased Master Builder version 6 in 1999, but he is currently using it only for accounting, job costing, and production management, because, he says, "We've been too busy to learn the other functions. We just didn't allow enough time to install and learn a big, complicated program."

Upgrading to the recently released version 7 has proven to be as difficult as the original shift from QuickBooks Pro.

"We thought migrating from QuickBooks to an integrated package was a hassle," says Nikula, "but upgrading from Master Builder 6 to version 7 was even worse. During one tech support call, we discovered that the menus on my screen were different than what tech support had, even though we supposedly were working with the exact same revision. In the end, I was able to negotiate with Omware to reduce the cost of our tech support contract, but it still caused problems for us."

Costs and Setup

One benefit of Master Builder is its modular approach. It is also available in a single-use (Solo) version, as well as a true multi-user client-server application (Network). Nikula originally purchased five licenses of the Network edition, which for the modules he selected cost \$7,700. The company had to add a WindowsNT server, plus two extra workstations, for an additional hardware investment of around \$8,000.

Training and Support

A feature unique to Master Builder is a real-time online training system called MentorPoint, by which trained consultants can take control of your computers over the Internet and provide training as if they were on site. "The best money we spent was \$800 for MentorPoint," says Nikula. "The instructors, who were located at factory headquarters in California, were very patient and knowledgeable. It was much better than actual on-site consulting. The local instructor didn't click with our users and didn't follow up with us."

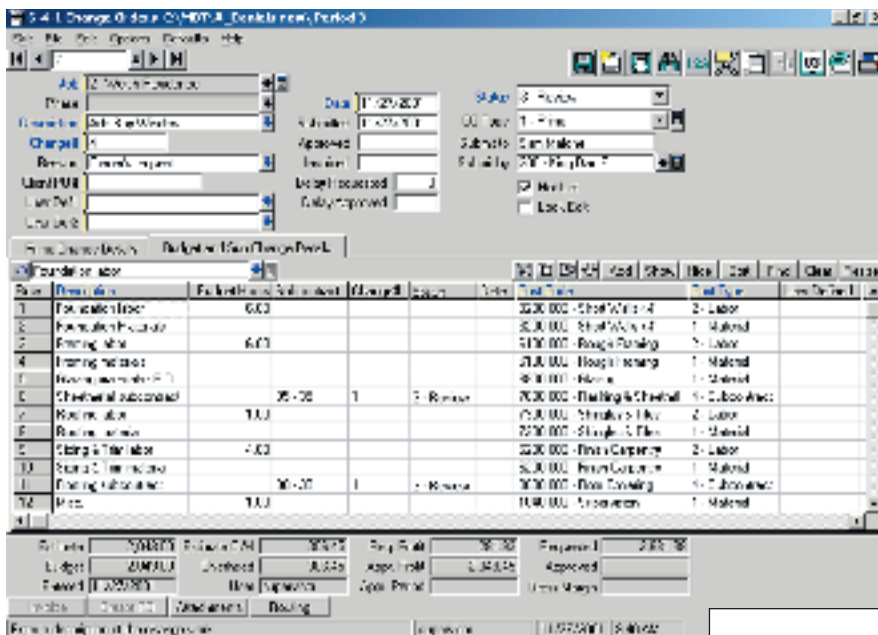


Figure 4. The Master Builder approach is almost the opposite of BuildSoft, putting the emphasis on traditional accounting techniques. Project management modules are optional and can be custom assembled to suit a particular business. Bean counters will like the level of detail at which change orders and job costs can be tracked.

Strengths

Master Builder is a more traditional accounting program and is not as procedure driven as BuildSoft, which makes it more flexible in a wider variety of construction accounting situations and less disruptive when moving from a conventional accounting system like QuickBooks Pro. It offers a wide variety of modules, including accounting, estimating, scheduling, job costing, purchase orders, project and production management, and equipment tracking. All are well integrated around a single back-end database.


Weaknesses

Users will find that project management features of Master Builder take a back seat to the accounting. For example, the scheduling module cannot easily level resources across multiple jobs, nor can it allocate resources for less than one-day durations. If you want to assign a backhoe to two jobs in the same day, you're out of luck. While all Master Builder modules share a common interface, the current version does not follow all modern Windows conventions and commands.

Purchasing Advice

Says Dale Nikula: "Spend as much time as possible researching software to make sure that the one you purchase fits with how you do business. Just as important, be realistic about your capability and available time to learn the software. My business manager is a CPA, and I hate to think of the problems we would have encountered without him.

"Don't buy a program that has a lot of features you will

 Daniels General Construction 1045 North Highland Street Santa Rosa CA 95407		SUBCONTRACT CHANGE ORDER	
License # ca8934931B		CONTRACT# 35 ORDER DATE CHANGE# 1	
TO Howards Mechanical		PROJECT 2 Welsh Residence 4567 Alta Vista Way 4567 Alta Vista Way Santa Rosa CA 95444	
You are hereby directed to make the following changes to the subcontract(s) listed below			
Description of work		Amount	
Sheetmetal subcontract Flashing at bay roof to wall junction per plan.		66.00	
Notes 12" wide by 3" deep bay with 3 windows per architects plan revision 12-1.			
Amount of Change		66.00	
The original Contract Sum was		250.00	
Net change by previous Change Orders		0.00	
The Contract Sum prior to this Change Order		250.00	
The Contract Sum will be changed by this Change Order		66.00	
The new Contract Sum (including this Change Order)		316.00	
Approved _____ Date _____		Date _____	
Contractor _____		Subcontractor _____	

High-Powered Estimating & Accounting

Carl Seville, Vice President
SawHorse, Inc.
Atlanta, Ga.

www.sawhorse.net

Type of business: Custom design-build remodeler

Years in business: 21

Annual sales: \$6 million

Software: Timberline Precision Estimating and Gold Accounting, Timberline Software Corporation, Beaverton, Ore., 800/628-6583, www.timberline.com

SawHorse Inc. does complicated high-end remodeling jobs for demanding clients. In 1999, the company abandoned its old 1980s DOS software to avoid the Y2K bug. After a year of evaluating different packages, they purchased Timberline Precision Estimating and Gold Accounting. According to VP Carl Seville, "We took all the right steps — reviewed demo packages and interviewed distributors and users of several packages we were considering. In the end, Timberline's reputation, capabilities, and references from users made it the clear choice for our situation. It's great software, all right, plenty robust for our business. I just wish I'd realized what I was getting into to get it set up and running."

Costs and Setup

Timberline isn't cheap — the software alone cost SawHorse \$47,000 for six seats of estimating and two of accounting. As is often the case, the purchase price was only the tip of the iceberg. In the first year, the company spent an additional \$80,000 (give or take) on consultants, additional databases, and training — not counting staff time and effort to set things up, which, according to Seville "was like a second full-time job." For most *JLC* readers, those numbers might be shocking, but they are typical for an operation the size of SawHorse. Timberline runs on a WindowsNT server, with a mix of Windows workstations for users. SawHorse does payroll in-house for 37 employees, who are split between office and field operations.

Screen the Consultants

SawHorse's first mistake was hiring a local accounting firm as a consultant to implement the Timberline accounting package. The consultant didn't have enough specific knowledge of Timberline software and, according to Seville, "ran into many dead ends." To add to the hassle, Y2K forced SawHorse to install the accounting package before the company was ready. With the help of a new accountant, it took most of year 2000 to straighten out the accounting system.

Implementing the estimating

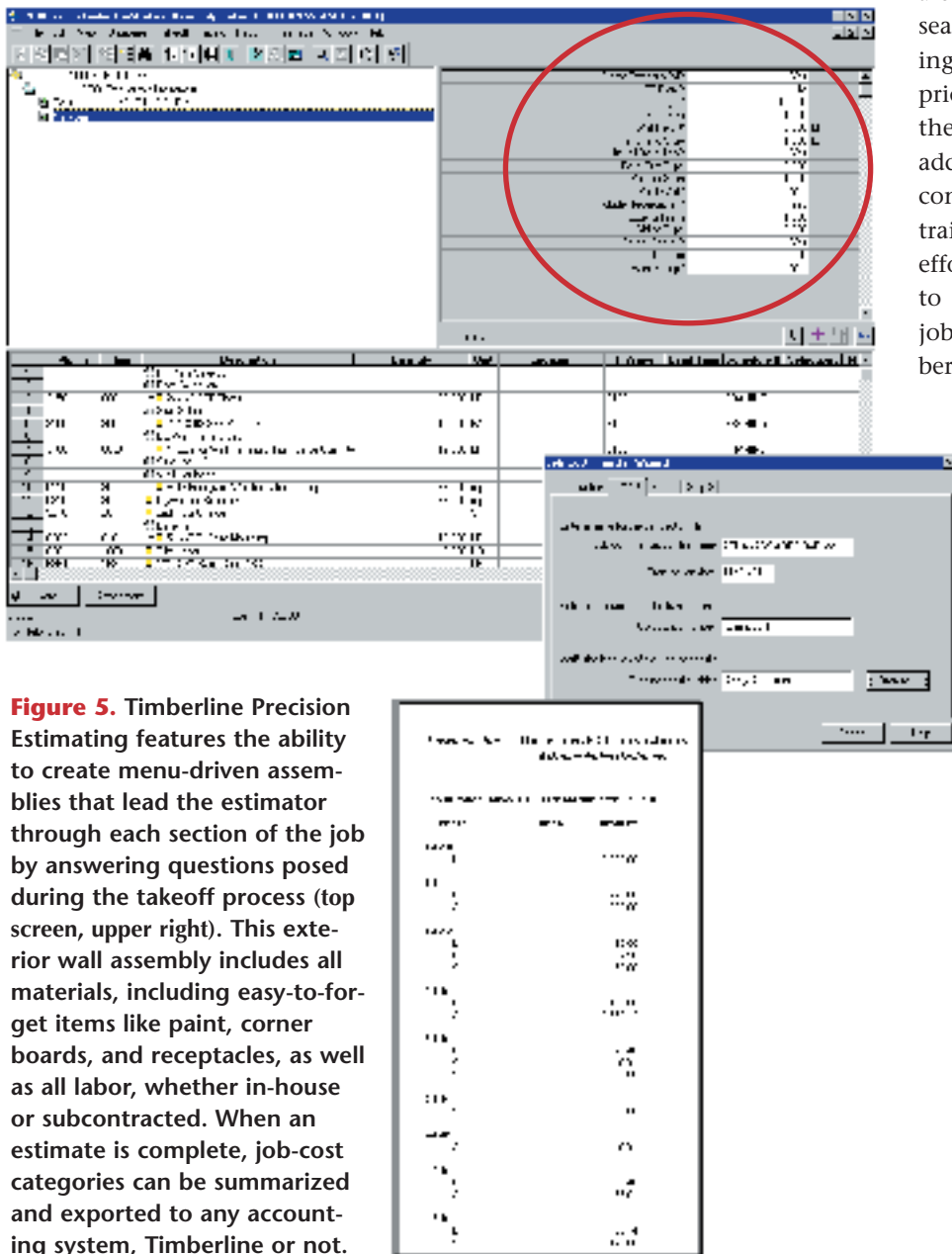


Figure 5. Timberline Precision Estimating features the ability to create menu-driven assemblies that lead the estimator through each section of the job by answering questions posed during the takeoff process (top screen, upper right). This exterior wall assembly includes all materials, including easy-to-forget items like paint, corner boards, and receptacles, as well as all labor, whether in-house or subcontracted. When an estimate is complete, job-cost categories can be summarized and exported to any accounting system, Timberline or not.

system went more smoothly. "Initially, we copied our old cost database into Timberline estimating and continued to estimate as we had for years, using stick takeoffs and manual calculations," says Seville. "This allowed our estimators to learn the software without having to also learn an entirely new method of estimating at the same time. Meanwhile, I spent several months creating a new database with comprehensive assemblies, which have automated much of our estimating process. Once the core of this new system was created, we trained our estimators and put it in operation very quickly. We continue to adjust, update, and expand the estimating database as needed."

SawHorse also discovered that no commercial cost book could take the place of setting up their own from scratch using their own data. "My advice would be to forget the pre-fab cost books altogether," says Seville, "and spend your money documenting your own historical costs and work methods."

Training and Tech Support

Early on, SawHorse put its employees through group training, which was of limited usefulness to them. "Our users just weren't ready. After spinning our wheels, we switched to another local consultant, who provided excellent on-site training, which for us has been much more effective," Seville says.

Strengths

Timberline Precision Estimating is the standard by which other estimating products are measured. Once the database and materials and labor assemblies are created and tweaked, users can expect exceptional productivity and accuracy. Room finish schedules, door and window schedules, and fixture schedules can be created as direct exports from the estimate, eliminating the need to re-key data into other programs. Menu-driven assemblies lead the estimator through each section of the job, including or excluding items as required based on the answers to questions posed

during the takeoff process (Figure 5).

According to Seville, "Timberline has been a great company to deal with. Tech support is excellent, and they are available quickly and work hard to rectify problems."

Weaknesses

Timberline Gold Accounting is beyond the needs of all but the largest builders. Surprisingly, Timberline's Estimating and Accounting are not that well integrated. Estimating can share data with accounting as a one-time export only, and the accounting system cannot automatically update estimates with "as-built" costs. According to Seville, "SawHorse stuck with Timberline for both estimating and accounting so we would only have one vendor to deal with, but in fact the estimating program would work just as well with any accounting program capable of importing budget items. In fact, a simpler accounting package may have been a better choice for us."

Advanced reporting from the estimating system is poor out of the box, largely because Timberline expects that users will have need for consultant-created custom reports. Says Seville, "We needed to use Crystal Reports [a common third-party report generator] to create the reports we needed from scratch. It works well, but for the price of Precision Estimating, a well-integrated report writer would be a lot nicer."

Purchasing Advice

Says Carl Seville: "Purchasing any software is an investment, and the cost of the software itself is the smallest part of that investment. Consultants are necessary in large installations, but don't ever expect any consultant to understand exactly what you do. You need to have dedicated employees who can work with your consultants to make sure you get what you want. On reflection, we are very happy with the Timberline estimating program, and while the accounting program works fine, it was probably much more than we needed."

Flexible Mac Alternative

Betsy Shelton, Office Manager

All-Star Builders

Menlo Park, Calif.

Type of business: Custom remodeler

Years in business: 14

Annual sales: \$700,000

Software: Goldenseal, Turtle Creek Software, Ithaca, N.Y., 607/272-1008, www.turtlesoft.com

All-Star Builders does major remodels, including kitchens, baths, room additions, and second-story additions. Office manager Betsy Shelton had experience in small business management and agreed to handle most of the office work so her husband, Gary Morton, could stay in the field. Shelton was using A4C (Accounting for Construction) for job costing and accounting, and doing payroll manually, when the Y2K bug bit. She was looking for an inexpensive and easy-to-learn program to replace A4C so that she could bring in additional office help without the need for extensive training.

"I didn't really do a formal evaluation," says Shelton. "My computer consultant, who was a former building contractor before he got into computers, was beta-testing Goldenseal

at the time and felt it would work for us, even though it was not yet in final release form. Other programs I glanced at were too expensive or not our style, and the Goldenseal payroll functions in particular seemed to fit our company well.” Goldenseal includes modules for estimating, job costing, accounting, project management, and address book functions (Figure 6). Because the program is fairly new, All-Star presently uses it only for job costing and accounting (including payroll), but Shelton hopes to use estimating and project management tools in the future.

Costs and Setup

All-Star has a small peer-to-peer Mac network in its home-based office, but Goldenseal is installed on a stand-alone Power Mac G3, which Shelton and three helpers share. Since Goldenseal is relatively inexpensive (\$395 per seat), Shelton’s main cost of implementing the program has been getting herself and her staff through the learning curve. “Because I needed this program before it was quite ready for public release,” she says, “I received a discount in exchange for agreeing to be a beta tester [a volunteer who tests prerelease software].”

Training and Tech Support

Turtle Creek Software provides free tech support by phone or e-mail. Shelton finds e-mail works best for her, because it gives her time to formulate questions clearly and to digest and understand the written answers. A printed tutorial manual ships with the program, and she spent an additional \$160 on an off-site group-training seminar, a “good investment,” she says.

Strengths

Goldenseal has a friendly Mac interface aimed at smaller contractors, yet has enough flexibility that it can be customized for most businesses. “Setup and configuration are accessible enough that it doesn’t cost an arm and a leg to have an experienced consultant set it up for you, and many computer-savvy users will be able to do it for themselves,” says Shelton. “I think Goldenseal has great potential for such a reasonable dollar commitment.”

Weaknesses

Goldenseal’s non-accounting format, while very builder friendly, might frustrate experienced bookkeepers. Says Shelton, “My only complaint is that Turtle Creek’s philosophical determination to not worry about ‘traditional’

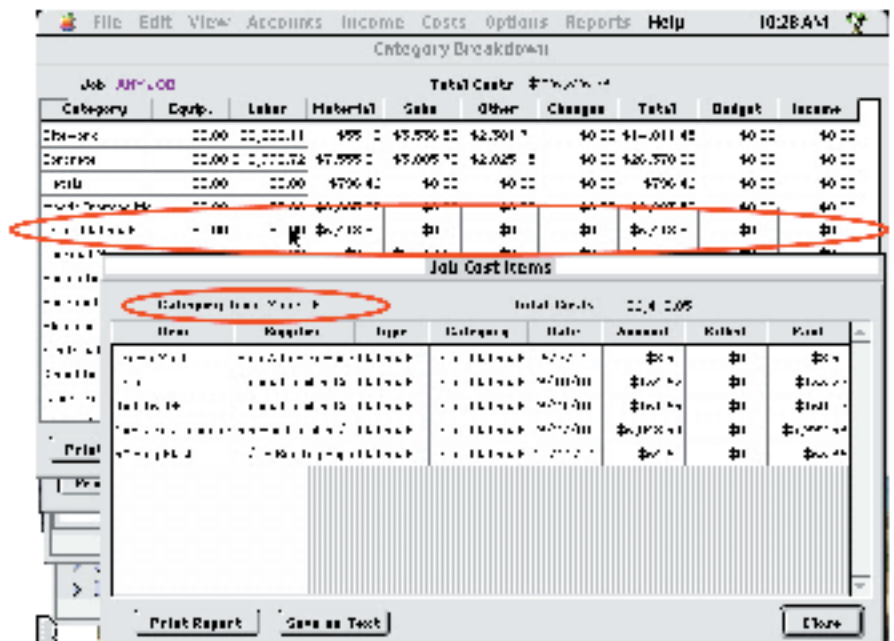


Figure 6. Goldenseal displays job costs by category total (rear) or broken out in detail for each trade or phase (front).

accounting reports is at odds with my determination (as a business management type) to have a program that generates them for me.” The same is true of the Mac graphical interface. While easy to use, some configurations can be buried several screens deep, making them hard to remember.

Purchasing Advice

After struggling with a prerelease program as a beta tester, Shelton warns other contractors about trying to save a few bucks by being a guinea pig: “Being a beta tester has taught me that you should base your purchasing decisions only on software features that are available *now*, in the current version. Features promised for the ‘next update’ might never come. Now that Goldenseal has been released to the public, most of my issues have been resolved, but it took longer than promised. Still, Goldenseal’s payroll and job-costing functions are slick and easy to use, and the promise of integration at a very reasonable price keeps me hanging on from update to update.”

Joe Stoddard is a technology consultant to the construction industry and a contributing editor at The Journal of Light Construction. He can be reached at the JLC online Computer Solutions forum at www.jlconline.com/forums/computers.