Bid and Takeoff Tactics

by Morris D. Carey, Jr.

Buying estimating software is less difficult if you're armed with the right decision-making information. In the August issue we studied the "price book" or database section of estimating programs. This month, we'll cover the takeoff or bidding section. Remember, brand isn't as important as understanding how a program functions.

Once the database (our list of priced items of work) has been entered into the estimating program, we are ready to make an estimate. When we sit down to make a bid, the computer program brings our data items onto the screen, and we enter a quantity for each item of work in the bid. The program then calculates the prices and stores them in a separate computer file (coded by job name or number), which is ready for printing any time we wish.

How bid information is stored in the job file (behind the scenes) by the estimating program has a great deal to do with how estimate prices will be printed out.

There are two very different schools of thought here, so to avoid surprises you should use caution when selecting a program.

Update Price at Estimate Level Only

Many contractors like to give a price to a customer and then hold the price for 30 to 60 days or so, regardless of how many times the estimate has to be printed—you know, the old "the price is good for 30 days" trick. Here, the computer program stores the estimate quantity and the estimate price for all data items used on a given job in a separate file exclusively for that job.

In this type of program, the only way to reflect price changes is to call that job back onto the screen and make the required price changes one at a time. Most estimating programs are structured this way.

Update Price at Database Level Only

Some contractors prefer each estimate to reflect the most current changes to prices in the database. Here, each time an estimate is printed, the most current pricing in the database is used.

In this kind of program, only the estimate quantity is stored in the job field. When the estimate is being printed, it looks to the database for prices. Hence, whenever database prices are updated, so are all the existing estimates—so-called "real-time price control." Expect to pay a little more for this kind of utility because the program is more difficult to create. I have used both methods, and I currently prefer the second. I have learned that with strict job costing and effective price control, I see both decreases as well as increases in pricing.

Let's look at some examples of this: Earlier this year when prices on cedar shakes plummeted, I was able to lower the roofing price in my database. Knowing that all my outstanding bids would be automatically updated gave me a more competitive price posture.

Conversely, when concrete jumped $4 per yard last week, I was able to adjust all my bids at once by changing the price in my database, knowing that the price would be reflected on every bid I had done to date.

Had I been using my old system (which didn't have this capability), I would have had to make both changes one at a time on about 40 outstanding bids.

Although it may exist, I know of no software that does both functions from within the program. The ones that have contrived a way around the problem require a working knowledge of the computer's disk operating system to be effective.

Both methods of updating prices work. But if you prefer one over the other, ask which method it uses before you buy.

Other differences regarding the takeoff routine are also important. When entering the bid, some estimating programs do not flash database items onto the screen. But that alone shouldn't rule out the purchase of this type of software.

The folks who create these kinds of programs recommend that you make a printout of the database (a "hard copy"), and work from that—instead of the screen—to locate the number of the item needed in the bid. Remodeling Estimator by National Computer Estimating (Ona, W. Va), is such a program, and I think it's super.

More common are the estimating programs that bring items to the screen one at a time or in groups. One program, Master Builder (general accounting software) and Power Takeoff (estimating software) from Omware, Inc., Sebastopol, Calif., handles the problem of bringing data to the screen faster and more effectively than any other software I've reviewed.

I remember telling software developer Dan Smith about three years ago, that his estimating system was the junkiest in the industry. He agreed! Several months later he had a prototype for Power Takeoff, and I can honestly say that his new program is a real contender. At about $1,000, it is one of the best for the money.

Another major consideration in selecting an estimating system is the method used to make the takeoff quantity entry into the computer. There are several alternatives: (1) Single keyboard entry from a manual calculation; (2) multiple keyboard entries calculated by the computer; and (3) electronic takeoff devices.

The most common method is #1—a single entry from a manual calculation. Here, the estimator manually converts plan dimensions such as length, width, and height to a resultant area or volume and then types the final number into the computer via the keyboard.

Method #2—multiple entries calculated by the computer—is another popular alternative. Here, the operator is allowed to enter length, width, and height individually, and the computer automatically calculates the resultant volume or area. The kinds of software that use methods #1 an #2 are at the lower end of the price scale, and are the most common available.

Method #3—quantity entry via an electronic takeoff device—adds yet another dimension to estimating takeoff speed and accuracy. It's kind of like the difference between ripping a 10-foot-long stud with a circular saw instead of an 8-point Sandvik—it is unbelievably faster.

Two basic types of electronic takeoff devices are available: rolling and pointing. The rolling types are the mouse and the planimeter. The mouse is a rolling bell that floats in a hand-sized housing. The planimeter is a wheel attached to a handle. Both devices are rolled over the plans just as you might do with an old-fashioned taping wheel, and a cord connects the rolling device to the computer. As the device is rolled over the plans, a signal is sent to the estimating program, automatically transferring your measurements directly into the bid.

Rolling devices tend to be somewhat less accurate and slightly more difficult to use than their pointing relatives, but if I couldn't afford a point-type digitizer, I would certainly consider a mouse. I hate the planimeter.

Of the pointing devices, my least favorite is the sonic type. The sonic digitizer works on sound triangulation, and if your plans get a bit ruffled on the table and get in the way of the receiver, things start to fall apart.

My favorite is the electronic digitizer board, which, in my opinion, is not only the most accurate of all the types available, but is virtually infallible. Inside the board thousands of hidden horizontal and vertical wires cross each other, making up a highly accurate and extremely sensitive measuring grid. Tape your plan to it, touch the plan in two or more locations with a thing called a stylus (it looks like a ballpoint pen), and POW!—a measurement is transmitted to the computer. Ever try calculating the area of a kidney shaped swimming pool? A digitizer is the only way to do it accurately.

For those of you who already have estimating programs, but are without digitizers, help is here. Techsonic and Construction Management Systems (CMS), two San Diego, Calif.-based firms, both offer conversion programs that allow you to use a digitizer with your software. If one doesn't work with your program, the other probably will.

Some Good Advice and a Mac Attack

A reader writes:

Q. Last year we did $1.8 million, and it was the worst year in the company history. You may use your very vivid imagination to discover the reason(s). Our records, such that they are, reflect that we have been on a cash basis, rather than an accrual basis. Effective this fiscal year, we have moved to the latter...we have five carpenters and laborers and do a lot of subcontracting.

My task is to institute [computer software] systems [on our three Macintosh computers which have Excel] that will assist in every aspect of our business.

Nancy O., Richmond, Vt.

A. I'm very sorry that your business is as large as it is and that you're stuck with all those Macs. Your construction-oriented business software choices are limited. If you are pretty good with Excel, then you should get in touch with the folks at Turtle Creek Construction. They have created an estimating overlay for Excel called MacNail 2.2. Unlike many popular spreadsheets, Excel allows the user to sort out unwanted data prior to printing—a really super feature. Generally with spreadsheet-based estimating systems, the user must erase now after row of unwanted information prior to printing, in order to get a clean estimate. The program sells for about $300 and handles estimating, job costing, and scheduling as well. Turtle Creek Software is located at 651 Halsey Valley Rd., Spencer, NY 14883; 607/589-6868.

If you are really serious about computerization (and it sounds like you need to be), sell the Macs or give them to your kids, buy an IBM AT clone, and look into Profit Builder Plus by CDCI (Norcross, Ga.), or Software Shop Systems (Farmingdale, N.J.). Both are highly sophisticated software packages that include: general accounting, accounts receivable, accounts payable, payroll (multi-state and union options available), job cost accounting, purchase orders (great for accrual-based accounting), subcontractor control (CDCI only), estimating, and customized reports.

Be prepared to spend $8,000 to $10,000 on the software and another $2,000 to $3,000 to get the one you choose up and running. And don't expect to save on office staff. But do expect a more thorough and easy-to-understand picture of what your business is doing. If you think the cost is too high, look at it over 10 years of business: $12,000 divided by 10 years of gross sales at $1.8 million each (which would be $18 million). Twelve thousand divided by 18 million equals .0007, or about seven-hundredth of one percent—a small price to pay for the most powerful management tool known.

Next month we'll look at the report section of estimating programs and answer more of your questions. ■

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