



Taking the Guess Out of Guestimating

by Morris D. Carey, Jr.

As I mentioned last month, most estimating software programs can be broken down into five parts: (1) the price book or database; (2) the takeoff or bidding section; (3) the report section; (4) the utilities section; and (5) the user/computer interface.

Everyone that sells estimating software has a different name for the database. Price book, work code list, items listing, repair list, parts list, and so on. Whatever the programmers decide to call it, this is the part of the program where you record the list of things that you do in your business.

Most of the folks who author estimating software include their own database as a part of their program. Their list should be used only as a guide to help you create your own database. Purchasing estimating software does not solve the age-old problem of how to create an estimating checklist, and getting a pre-made database should not be the reason for purchasing the software. There are plenty of books on the market that contain that information for far less money.

Last month we covered the basics of the database section of an estimating program. We talked about the computer code, the description of the item, the unit of measure by which to price the described item, and of course, the price per unit of measure. We developed a simple mock-up estimating database (see example below). Last month we didn't include a "cost type" in our example. But, since this is a part of many estimating systems, I thought now would be appropriate. A cost type included with each data item can be used later to reflect the relationship between labor, material, equipment, etc., in a given estimate or group of estimates.

For years I used an estimating system by BPI, Inc., and it served me well. However, it's no longer available

screen and all the estimator had to do was enter the quantity based on the unit of measure (UM).

Then along came the Remodeling Estimator by national computer Estimating (NCE). Their database structure ("list of repairs") proved to be simple yet considerably more flexible than what DPI had to offer. Instead of one price in relation to each UM, NCE allows two. The hitch is that instead of allowing six cost codes like BPI, NCE is limited to two. Even so, NCE is still a better program.

Although the two-prices-per-item concept was developed to include one

assigned to a data item. Here MB assumes that different vendors will change different prices for the same type of work. Hence, when estimating a certain item one can elect at takeoff time to pick a vendor, forcing his price to be used instead of the basic one.

CMS takes a slightly different approach—one that I like a little better. Two basic prices are allowed for each data item instead of one. With CMS the database not only has room for each of the two base costs, but each base cost can also have two markups (say tax and overhead), and a

bet! The worst thing you can do is purchase a system that is too complex for your current needs. If the more complex system confuses you, you could give up and lose the power of computing. Not a good scenario. John Olson, vice president of Equity Contracting and Remodeling Corp., writes, "Our two-year-old company is growing rapidly, and we have bookings five months in advance. Recently, it has become apparent that we need a computer system. Is there any information you could provide us regarding the purchase of software that would best suit us?"

Small Systems Design, California Contractor, Jobs, by Job Systems, Inc., and Master Builder are products advertised industry-wide that cater to small to medium-size contracting firms, and include integrated General Accounting, Payroll, Payables, Receivables, Job Cost, and Estimating modules. The systems are fully integrated and reasonably easy to use. I have reviewed all of them at one time or another, and they are all good bets. Prices range from \$1,000 to \$5,000. In addition to accounting and estimating, you will need a word-processing program to round things out. Take a look at Microsoft Word, Word Perfect, or Wordstar. And, expect a price tag in the mid \$300 range. Check with the adult evening education program at your local high school or junior college to see what word processor they teach. Some local instruction could be quite beneficial.

I am a strong believer in preprogrammed business software like those noted above. Watch out though: The integrated packages that you read about in computer magazines usually include a word processor, a database manager (a kind of programming tool), an electronic spread sheet, and a business graphics program. This kind of "integrated tool" is great if you're a computer buff, but not so handy otherwise.

For those of you who have larger contracting firms with full-time inhouse bookkeepers, look into Profit Builder Plus III, or Software Shop Systems. These are two top-of-the-line integrated (accounting/estimating) business programs. Expect to spend \$8,000 plus. And, you can spend \$12,000 or more if you decide you want their fancier digitized estimating systems.

Next month, more letters from you, and a birds-eye view of the takeoff and report sections of estimating programs. ■

Getting a pre-made database should not be the reason for purchasing the software. There are plenty of books on the market that contain that info for far less money.

for purchase. The upside of the BPI system was that it was extremely simple to learn. The downside was very little versatility. Since the user was not required to fill thousands of blanks with tons of assorted information, one did not have to be a mental giant to make the program do somersaults. All one had to do was enter a line of information (just like the example above) for each item to be bid. Then, at estimating time, the line of information would come onto the

place for labor and another for material, one price per item is still allowed. Another interesting feature added to the NCE database allowed each item to be coded with a takeoff formula. In the BPI system, if subfloor installation labor was to be calculated by the square foot (SF), then the estimator would have to measure length (say 20 feet) x width (say 30 feet) to get the area (in this example 600 square feet), and then enter the result of that calculation (600) into the computer. In the NCE system, that particular item could be coded to self-calculate two quantity entries instead of one. In this case the system would ask for length, then width, and the calculation would be done behind the scenes—yet another way of minimizing work and errors.

The NCE system originally allowed for a selection from five formulas, but the most recent release of the program provides 19 selections. You can use your imagination here (each, area, volume, etc.). For ease of use and setup simplicity, NCE beats all the others hands down. On the other hand, if you are not frightened by a computer, and you want more than the basics, there are several more versatile estimating programs available. Two of the many companies that have done a great job catering to the more advanced needs of the estimating community are Construction Management Systems (CMS), and Master Builder (MB). The database sections of these programs are far more advanced than what NCE has to offer. Like any basic system, both CMS and MB require a number to be assigned to each data item. These systems also provide for a description, takeoff unit of measure, and basic price. Both systems also allow for cost types. MB pre-names its cost types, and CMS allows the user to name his own. MB also allows for more than one price to be

third markup at the database level, which CMS calls the cost "adjustment," that can be used for items like concrete where waiting time is a variable. Most systems that allow such entries provide the user with the capability of entering the markups as actual dollar amounts or percentages of the base cost.

Additionally, most of the programs on the market today will allow for several markups at the report level. This is not to be confused with price separations at the database level. For example, the NCE program allows for overhead- and profit-markups to be included with the estimate, separate from the price used at the database level. At last look, MB offered the same feature as NCS. CMS offers several user-defined markups at the report level.

In my opinion, the MB database is centered around estimating speed, and ease of use of the database. An assembly (see last month's column) can be created more quickly and with less effort than with most of its competition. Setting up the program, moving through the database during takeoff, and transferring data into and out of assemblies is quick and easy compared to other relatively complex programs. NCE, on the other hand, is based on estimating simplicity. There is nothing complicated about this one.

The CMS system, on the other hand, is made for the most price-conscious business types where intricate price management is the top priority. This program can confuse the best of us, but once mastered is unmatched as a business management tool. NCE is for the novice, MB for mid-line and semi-advanced estimators, and CMS for the most complex business minds.

Is it difficult to move from a simple system to a more complex one later? Somewhat. Do I recommend that you start simple and move up later? You

Example of Estimating Database

Item #	Description	Cost type	UM/Price
#651	INSTALL SUBFLOOR	Labor	SF/1.25
#652	SUPPLY SUBFLOOR	Material	SH/18.00

Morris D. Carey is a partner with Carey Bros. Construction, a successful remodeling firm based in Pittsburg, Calif. In addition, he is an author and lecturer and has reviewed hundreds of construction-related computer products. If you have a question about computing in construction, address it to State-of-the-Art Contractor, c/o JLC, RR#2, Box 146, Richmond, VT 05477.