



## Digitizer Delight

by Morris D. Carey, Jr.

To start an estimate with Esprit, you select "BIDS" from the main menu, give your job a name or number, press the tip of the electronic pen to one of the items printed in your database, and instantly that item is entered into your estimate. Sound too good to be true? I thought so, too, but read on.

Scanners, in the form of hand-held pens—not to mention little red beams shining up through counters—have become commonplace in the world of retail sales. We see them at check-out counters in grocery and department stores all over the country. They serve to reduce human error, improve speed, and control inventory all in one sweep—in short, they can help a business reduce costs and increase profits.

Although digitizing has been available with estimating systems for several years, nothing has impressed me as much as a new option from CMS, the makers of Esprit and Easyst. The firm, once based in Reston, a., recently relocated to 9320 Carmel Mountain Road, Suite G, San Diego, CA 92129, and it looks like the Pacific salt air and coastal sunshine is just what CMS's department needed.

Two years ago I rated Esprit as my number one software choice in the advanced estimating category. I couldn't imagine the software getting better. But it did! The secret is Penpoint, a reasonably priced digitizer option that I believe will change the face of computer estimating.

Load the software program onto your hard disk (a 10 meg is plenty, but a 30 to 40 makes more sense from an investment point of view). Connect the digitizer to your computer's serial port (any AT or faster DOS machine is okay, but a Packard Bell 286-16 works super). In order to maintain bug-free software CMS still uses programming conventions that make for comparatively slow program operation on PCs, XT's, and even some of the slower AT's. Cacheing software can be used to make the program work a little faster, but my recommendation is to use it on the fastest AT you can buy. The program is worth stretching for at the hardware level.

Do the tutorial that comes with the package first. It is well documented and will prove invaluable in helping you to acquire a clear understanding of the program. Next, you can install your database by typing it into the program, or personalize the one they provide (other databases are available at extra cost—about \$500 each). Next, use the program to print out your database onto a dot-matrix printer, and tape your printed database to the digitizer board along with a set of plans to be estimated. Use the program to tell the digitizer board

where the printout of your database is located, and what the scale of your drawing is. You are now prepared to make one of the fastest and most accurate estimates you have ever produced.

Touch the digitizer to the item on your printout that you want entered into your bid, touch a point or two on your plans for a quantity, and go to the next item. You can do this even faster if you use the program's QUANTITY screen to pre-load such values as area, perimeter, cubic yards, widgets, or whatever. Touch the line item using this feature, and both the item and the quantity are entered at the same time. Assemblies can be taken off in the same fashion. I have never seen anything as fast.

Creating or installing a database for your business will prove to be the most difficult part of the setup. Once you complete this and understand how the program works, you will be able to turn it over to an estimator, who, with little or no knowledge of computers, will be able to use it after about ten minutes of training. For an additional 50 bucks CMS also offers a video tape and workbook to help you learn your way around the program. The advanced system database allows for estimating data to be entered at three levels: Up to 30 Divisions (CARPENTRY, for example), up to 10 Subdivisions per Division (PREPAINT FINISH CARPENTRY, for example), and up to 100 Line Items per Subdivision (INSTALL WINDOW STOOL & APRON, for example). Although 30,000 items can actually be entered (30x10x100), that's more a selling feature than a practical need. You can enter up to two costs for each line item, and for each of those costs you can elect to enter two mark-ups, and a waste factor. Take-off units of measure like LF, SF, CY, SQ, are user-defined for each data item, and can be converted to other units of measure by the system automatically, and per your setup instructions. For example, take off CONCRETE FOR FOOTING in linear feet, and the system can automatically convert the data to cubic yards. Price changes to the database affect old estimates, so pricing always remain current. The list of features goes on.

The software for the advanced system with the penpoint option, a general contractor database, the training video, and a decent-sized digitizer board will run you about \$5,000. The right computer for the job (if you don't already have one) should run another \$3,000.

**Hardware beginnings.** What makes a good hardware system you ask? Well, when it comes to hardware there are essentially two choices: IBM and

compatibles (DOS machines), and the Apple Macintosh. I like the DOS machines, because a myriad of construction specific software is readily available. The choices for the Mac are still lacking for the most part. When Timberline, California Contractor, BPI, Master Builder, Software Shop Systems, NCS, CDCI, SSD, and so many other major manufacturers of construction software revise their programs for the Mac, then I'll revamp my opinion.

What kind of DOS machine should you get? That's easy—don't buy "Big Blue" (IBM). They're too darned expensive. Besides costing less money, the clones are every bit as dependable, just as easy to get repaired, and generally work faster. Stay away from mail order. That's where the junk congregates. Go for a shop in or near your community, preferably one that does "in-house" repairs. Ask for an IBM AT compatible with an 80286 microprocessor. The 80386 is still too expensive and won't become reasonably priced until after the next generation of microprocessors is released from Intel (probably the 80486). A zero-wait-state 80286 microprocessor with a clock speed of 10 MZ or faster is recommended.

For machine options, look for a 125 millisecond 1.2 meg floppy drive, and a 25 millisecond 30 or 40 meg hard disk. You'll also need a parallel port, a serial port, and any old keyboard (the 101 key keyboard is okay, but 88 keys do just as well for most programs). Amdek still makes one of the better monochrome monitors. If you want color ask for a VGA adaptor and monitor. CGA and EGA are outmoded. The Fortis DM2010t is the fastest dot matrix printer I've seen for the price, is well built, and sells for about \$400.

The monochrome rig including computer, monitor, ports, drives, printer, and operating system software should run about \$2,500 to \$2,800. Add \$600 to \$700 for color. Although I strongly recommend a tape backup system. Everex makes a nice one that you can get for under \$1,000. Why tape backup? Once you've destroyed a hard disk with two years of accounting or estimating data on it you'll have the answer. And believe me, it happens all the time. ■

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