Should You Consider

Should you invest in a personal computer for your business? More than likely, the answer is yes. Even contractors with large, sophisticated systems for accounting and job costing use microcomputers as additional support because they see them as different tools for different purposes.

A microcomputer with 48K-64K of memory, a minidisk drive, a small printer, and an electronic spread sheet program (VisiCalc, for example) makes a powerful management tool. With such a system, almost anyone can create budgets, cash flow projections, estimating extensions, pricing policy analyses, and financial performance analyses which save time, improve operations, reduce uncertainty, impress lenders and bonding companies, and reduce borrowing costs.

The real significance of the sentence above is that “almost anyone” means just that. The VisiCalc program instruction manual is a model of clear, plain English without computer jargon. Some construction executives report that the learn-by-doing manual has them making simple budgets on their own after just one Saturday. Within a few weeks, most are experts.

Just what is an “electronic spread sheet” program? First, imagine the ordinary paper spread sheets you’re already using with a pencil and calculator for estimates, financial analyses, or whatever. The spread sheet consists of rows and columns for entering data. You label your rows and columns, and write numbers in the appropriate cells where rows and columns intersect.

If you’re totaling up a bid with unit prices, and the customer calls to tell you to change the number of units of drywall, you have to erase the units figure, the extended units figure, and the total bid figure. Then you enter the new units figure and rework your calculations.

Now, imagine a picture of a giant spread sheet shown on a computer screen. The sheet is so big that only part of it fits on the screen at one time, but there’s no need to worry. You can move the screen to any point, and you can even split the screen any way you wish in order to work with two parts of the electronic spread sheet at the same time. Labels and headings, such as months or years, can be locked in so that they don’t roll off the screen as you move about.

You can type a number in any cell and have it added, subtracted, multiplied, or divided by other numbers in other cells in any way you want. But there is the really important benefit: If you have to make one change or a hundred changes, there’s no erasing and recalculating. Just type in the new figures (units of drywall, for example) and the whole electronic spread sheet automatically revises itself!

It doesn’t take much imagination to recognize the value of an electronic spread sheet’s automatic revision capability. As an example, suppose you prepare a 75 line item quote showing direct costs. Let’s say the bottom line dollars are a little on the high side for your prospective customer. If you could substitute lower cost material for 12 items, you could get the total cost into the customer’s price range.

To build your case, you could make a printout of the more expensive version and put it aside. Then you make the 12 changes and make a printout of the lower cost version in a format identical to the first one. The customer looks at both versions and makes his decision. You spend your time and energy selling, not calculating.

The capabilities of an electronic spread sheet go even further. If you need to repeat a number or formulas several times down a row or column, you don’t have to type it in over and over. Type the entry once; then give the computer instructions to replicate it as many times as you wish. If you forget a row or column, you can insert one, and all the previously entered formulas will automatically adjust. You can even move rows and columns if you don’t like your format.

Arithmetic operations can be relatively sophisticated if that’s what you’re after. Exponentiation, root extraction, napierian logs and antilogs, trigonometric functions, net present value, and table lookup are some of the capabilities.

Once you get a spread sheet the way you want it, you can save it on disk for future reference or modification. You can save frequently used standard spread sheets, overlay them with new input numbers, and crank out variations as fast as the printer will print them.

Right up until the time of printout, you work with a picture or image of the spread sheet—nothing’s final until you print it. If you don’t like the

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final printout, just make the changes you want on the computer, print it again, and throw the first printout away.

Twelve-month budgets and cash flows eventually become so easy to produce that they actually get done. Working from your backlog, likely future contracts, material and labor costs, and overhead expenses, it’s a relatively simple matter to set up a budgeted monthly income statement.

From there, add on projected billing receipts, wages, supplier payments, installment payments, and overhead bills; and the personal computer can print out a budget and cash flow statement for each month.

Negative months on the cash flow show where short-term borrowing is needed, and positive months show when you can expect to pay the bank back. Lending officers receive these projections almost gleefully, and many contractors are able to negotiate lower interest rates with them.

If collections don’t come out exactly as planned, call up the budget and cash flow spreadsheet from disk, make the changes, print out the automatically revised version, and send it to your banker. He or she will be grateful, even if the information is a little unfavorable. Most bankers have a reasonable attitude toward missing financial objectives once in a while, especially if they are told in advance. It’s surprises after the fact that they don’t like.

Even personal computer hardware is not as intimidating as many believe. At a recent Fails seminar where the attendees had no choice but to participate in solving actual problems with hands-on microcomputer operation, several attendees were grateful that someone had finally made them sit down at a keyboard and punch the buttons.

“I could kick myself. I never realized it was so easy,” a 58-year-old contractor from California remarked.

Accessibility is the main reason for owning a microcomputer as an accessory to the large computer used to keep the company’s books. Even if you could find a program similar to VisiCalc to work on your big computer, you probably wouldn’t be able to use it during peak loads, such as payroll preparation day.

A microcomputer is a stand-alone or desk-top system. It isn’t a slave to
the whims of a big computer elsewhere. In fact, a microcomputer should be thought of more as a super calculator than a downsized computer.

If you want to tie a microcomputer to a large mainframe, you can in some cases. With programs ranging from $25 to $100, a microcomputer can be made to perform like a terminal or a teletype. With an inexpensive “modem” or telephone hook-up device, the microcomputer can then perform limited communications with remote computers. Personal computers are usually slower than regular terminals, however.

Depending on what you want and who you buy from, a practical microcomputer system can cost approximately $3,000 to $10,000. Here, the term “system” means a screen, keyboard, printer, disk drive, and at least 48K of memory (64K is worth the extra money). Systems going for less are fine for games and home entertainment, but their serious business applications are limited.

Among the most popular quality machines are Apple, Commodore, DEC, Hewlett-Packard, IBM, and Radio Shack. Programs written for one manufacturer’s machine will not run on another’s, but any dealer who sells a particular microcomputer will also have software for it. All of the machines mentioned above will accept their own versions of the VisiCalc program that costs about $200.

One recurring frustration among contractors considering a microcomputer is finding someone to tell them what they need. There is no easy answer to the question, “Which one and how much should I get?” You
have to shop around for the system that will fit your needs. But even if you don’t get “the best” one (whatever that means), any quality system can put you so far ahead of paper, pencil, and calculator that it won’t matter.

Shopping around is not as difficult as it may sound, either. Good microcomputer sales people are patient, straight talking, and accustomed to working with people who have no previous hands-on computer experience. Tell them up front that you’re shopping and ask them why you should buy their product. Be prepared to spend some time with demonstrations.

Also, consider service. For FMI seminars, we have bounced microcomputers around in rush hour traffic, shipped them to and from distant locations, and so far have not had any problems with failures. We realize we are pressing our luck and do not recommend such treatment, but most microcomputers are reasonably rugged and reliable.

However, should something go wrong, you want accessible service, quick and competent. Service also means support. If you buy a new program and get lost in the instructions, will the salesman help you out on the phone or at the store if necessary?

Your time would probably be well spent if you devoted one Saturday to “informational” shopping to see what a microcomputer can do for you.