Those contractors thinking about buying a computer deserve our sympathy—or so it would seem. With thousands of computer products now on the market, where does a contractor begin?

One analyst wryly compared the Computer Revolution of the 1980’s to the Sexual Revolution of the 1960’s, saying, “everyone knows it’s out there but wonders where it’s safe to get it!”

But in reality, the choices in computers for contractors is not so overwhelming, as few companies have specialized in construction industry applications.

Importance of Estimating. Computer software programs exist for a variety of contractor needs, from accounting to payroll to word processing. And indeed, surveys repeatedly show the great majority of firms using computers apply them toward these types of administrative functions.

However, less than twenty percent of those firms use their computers for estimating functions—even though estimating demands great accuracy, and is a key factor in company profitability.

Why this reluctance? Because contractors believe estimating is unimportant? Or they don’t trust computers when their wallet is on the table? Or because computers can’t account for all the variables in an estimate?

When asked, contractors seldom say estimating is unimportant and will trust a computer’s arithmetic.

Rather, it is the question of variables—the fear of paying for
something the computer "missed"—
that most bothers those contractors
considering a computer purchase.

No contractor would disagree that
estimating is perhaps the critical ele-
ment in a company, as it determines
how much the firm gets—and how
profitable is the work obtained. So
whether the work is drywall or plaster-
ing or excavating, contractors will
gladly entertain anything that would
boost bid productivity and accuracy—
provided they can check the figures.

**Computer Advantages.** Can com-
puters really remember all the "little
things" a seasoned estimator figures
into a bid? First, 95 percent of estima-
tion work is repetitive; and second,
computers can handle the rest with
ease and efficiency.

Instead, contractors should consider
the benefits of computer estimating:
- Increased bid productivity, with
gains of 300 percent and more com-
monly reported—along with an esti-
mated 75 percent decrease in bid
preparation time. With a computer,
suddenly all the bid opportunities
passed up for lack of time become
available.
- Dramatic increases in accuracy.
One computer salesman says he makes
a bet with every customer: pull out the
last five bids and, if a mistake cannot
be found in four, the contractor gets
a free computer—but if four are
mistaken, the contractor writes a check
on the spot. In twelve years, the
salesman has never had his challenge
accepted.

Contractors accept the idea their
manual bids will contain mistakes, and
only pray the error is small—and in
their own favor. One company that
conducts computer training classes
asks students to do an estimate
manually first, and have never gotten
the same answer twice on the single
example they use.

After all, what low bidder doesn't
celebrate one moment—and then won-
der the next: "What did I leave out?"

Where it is virtually impossible to
write a mistake-free manual estimate,
with a properly operated computer us-
ing construction estimating software it
becomes to routinely NOT make a
mistake.

- More time and information to
analyze bids before submission so that
contractors, now accustomed to last-
minute phone calls, can check their
figures before committing to them. For
example, because labor costs often
determine the competitiveness, a com-
puter allows the contractor to run an
analysis and check opportunities for
cutting man-hours.

**Man vs. Machine.** The basic dif-
fferences between manual and com-
puter estimating are profound—but
first, a review of the steps involved in
writing an estimate by hand:

Manual estimating begins where the
 estimator must align his ruler or other
measuring device upon the drawing,
and then—by reading the conversions
visually—takeoff the values to be used
in producing the estimate. The values
are posted on a separate sheet, the
diagram is marked—and if the phone
rings, it is easy to forget where things
were left off before the interruption.

Computer estimators use a probe
that accurately traces the drawing to
produce the takeoffs. Items are coded
so that, with the punch of a button,
repetitive calculations are all
performed—an especially important features for wall and ceiling contractors when room units painted repeat dimensions.

Changes in material prices can be easily entered—in fact, many manufacturers can deliver this information over the telephone directly between computers. And when the estimate is done, the computer will even present the estimator a checklist to make sure all items are included.

Also, as a byproduct of the estimate, computers can generate with no extra effort a whole raft of other useful reports: labor and material costs per room, bills of material, budget by work activity, bills of material, and much more. Imagine the time saved over going back to manual estimates and generating this information by hand.

Lastly, manual estimating has a basic flaw: it is always conducted time pressure, so of necessity short cuts must be devised. But with computers, estimates are quick, accurate and complete.

Selecting a System. If estimating is an important function planned for the company’s computer, be sure to seek out experienced vendors who know the construction industry.

Use a single source for both hardware and software needs. Separate vendors arguing whether hardware or software caused the problem will cause ill-afforded downtime—as it is doubly difficult, once the switch to computers, to return even temporarily to manual estimating.

The stability of the vendor is also key, as the Wall Street Journal reports that four of five firms now in the computer field will be out of business within two years. Moreover, a good company should always be improving its products.

A good computer estimating system can be had these days for between $12,000 and $15,000. And Uncle Sam will pay up to 46 percent of the price tag through investment tax credits and depreciation allowances.

So that $15,000 system, less the tax writeoffs that bring the cost down to about $8,000, would end up costing the contractor $168 per month—and just $7.63 per day.

At those prices, the time saved and the work gained through increased bidding, would easily payback the investment in computer estimating.