Today, big business dominates almost all industries except in construction contracting, where the vast majority of builders are small, independent entrepreneurs. In fact, several hundred thousand hard working, ambitious people have found the construction industry a place to start and build a business into a modern success story. But, as in most success stories, hard work, diligence, and preparedness are essential ingredients if the construction contractor is to “make it.”

In addition, information, and automation to achieve it, plays a key role in the success of today’s contractors. In yesteryear, the necessary skills and experience could be learned through trial and error and often either the son, daughter, or wife of the contractor would be brought up to the business and groomed to continue the management of the company, management that is based upon intuition rather than being information driven. Today, however, the contractor is competing on a fast track, which is highly competitive and has narrow margins and high risks. In order to succeed in this environment, timely information is essential, since it seems there is never enough time to estimate, bid, and run a job to its completion without fear of costly oversights and mistakes. An effective computer system, specifically designed to meet the needs of the construction company involved, can offer tremendous advantages by providing meaningful, accurate information on a daily basis and can contribute to the increased success of the contractor in a number of areas.

*Estimating . . .*

• The ability to expand by four times the number of bids produced manually with no increase in manpower requirements and with only the nominal cost of the computer system. In today’s marketplace, the real cost of acquiring such a system can be very modest based on a five year depreciation—an investment level well within the reach of almost any size contractor.

• The ability to have your bids reflect the true cost of the job, free of the errors that occur almost 99% of the time in the manual bidding process.

• The ability to develop information, i.e., the labor cost involved in various phases of the job while the system provides the time required to have you or your estimator relate to each of those labor activities and factor them intelligently relative to the real conditions you expect on that job.

• The ability to develop labor and material requirements by each location, zone, floor, etc., of the job—thus providing maximum efficiency in the scheduling of material and manpower.

• The ability to automatically generate a budget by work phase on each job and providing a simple, but effective job management program which allows for periodic monitoring of the job as it progresses by each work phase to insure your best chance of bringing that job in at a profit.

In fact, there is hardly an application more ideally suited to a computer

*By George M. Llewellyn*

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**About the Author:** George M. Llewellyn is President of Estimation, Inc., a computer hardware and software vendor located just outside Washington, D.C., which specializes in the construction industry. Prior to forming Estimation, Inc. in 1973, Llewellyn held a sales management position at the Olivetti Corporation, and earned a Bachelor of Arts degree in Education from Westchester State College. He has authored many articles on computerized estimating for construction industry trade journals, and has assisted in the development of university level seminars on specific computer applications for the construction trades. Estimation, Inc. is a frequent exhibitor at AWCI expositions.
“In fact, there is hardly an application more ideally suited to a computer than construction estimating. One look at the steps taken by an estimator in preparing a bid confirms this.”

Complicated assembly formulas can also be stored in the memory, saving the estimator hours of calculator work. The computer then performs the extensions in a matter of seconds. The estimator next tackles a load of addition, collecting similar items, and preparing the summary for submittal. The computer can add, sort, and format the summary any way the estimator desires.

In the final analysis, a well designed computerized estimating system can bring dramatic benefits to the contractor’s bidding process, benefits that have a direct relationship to the firm’s growth and profitability.

Exemplifying how these benefits can dramatically impact the bidding process, here are some quotes from AWCI members who have installed systems and are receiving the benefits:

Phil Gross—P. Watts, Inc., Winston Salem, North Carolina:
“The system has been a Godsend. It has saved us far more time than we anticipated. Last year was our first full year using the system and we increased our estimating capability by at least three times. We simply could not do without it now. The system has far exceeded our expectations.”

Bob Newham, Newham Plastering, Inc., Casselberry, Florida:
“We save tremendous amounts of time by estimating with the computer. In addition to the savings for the estimator, it also saves secretarial time by eliminating the need to double-check all extensions. Just as important, the system eliminates the possibility for human error.”
Of equal importance to improving the bidding productivity and quality is improving the ability to control all aspects of the business and here, also, the computer can provide definite advantages.

For example, if we take the activities of accounting, specifically Payroll, Accounts Payable, Accounts Receivable, General Ledger, and Job Costing, a well defined system which is completely integrated so that these functions are tied together and entries made to one part of the package are automatically posted to all other areas where they should appear, with a computerized accounting package, you'll have tighter control over cash management, expenses, job costs, and other accounting data. The package works with you to organize, speed up, and coordinate all your accounting operations.

Accounts Payable makes it easy for you to measure the impact of cost distribution and cash flow requirements within your company. You can manage cash and control expenses more comprehensively with flexible payment processing and detailed disbursement reports.

Entries on items such as purchases, miscellaneous debts, and material requisitions need only be made once, as expenses are posted automatically to selected General Ledger accounts. An optional interface to the Job Cost program provides up-to-the-minute costing information by job, phase, and expense category. With the added speed and organization the computer affords, you can verify, retrieve, and update vendor information as you make invoice entries.

Accounts Receivable helps you produce up-to-date, invoices, statements, and detailed aging reports. You can enter partial payments toward any open invoice or customer balance, and apply the payment toward selected aging periods when appropriate. All cash receipt entries are automatically sent to General Ledger for processing against Accounts Receivable or other specified accounts.

For accurate contract billing, Accounts Receivable handles retainage, change orders, and progress billing by percent complete, and prints out contract bills to Al A formats.

A Job Cost program automatically records costs and revenues as you process financial data from Accounts Payable, Accounts Receivable, and Payroll. A complete Jobs File is maintained and you can easily obtain a variety of printed information such as Job Detail and Billing Summary reports. A complete variance analysis against your estimates by phase brings your job profitability picture into focus.

With a Cost Detail report, you can compare actual to estimated costs. The system computes variances for all jobs and phases with totals calculated for each job, phase, or project manager.

When you consider the wide range of advantages available that apply to both the estimating and business applications and the timely information that is at management’s disposal, it is obvious that a well-designed, well-applied system provides a capability that is vital to the success, growth, and profitability of any wall and ceiling contractor.