

Integrated Computer Systems Can Improve Bottom Line

By Roger Kirk
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Heavy and highway construction contractors face an increasingly challenging business environment with tight margins, stiff competition, skilled staff shortages and administrative demands that can bog down even the best of operations. Although many companies have made considerable progress in computerizing some financial and project management operations, only a few have taken the leap to an enterprise-based information management system that fully integrates all administrative and operations functions, including financial, project, personnel, and equipment capabilities. Such a move can go a long way toward streamlining operations and paving the way for sustainable growth, resulting in increased profits.

Over time, most heavy and highway contractors have developed or purchased several independent computer applications. It might have been a financial system from one vendor, a home-grown or third-party graphics or project management application from another supplier, or an inventory/equipment management system from yet another source. The problem is that these disparate applications do not easily work together, nor can they be made to function in a truly seamless manner even if an IT consultant is able to get them to "talk" to one another.

The story is a common one: financial systems are running well, but too much time is spent entering information into multiple systems, then reconciling the differences and correcting the errors. An integrated system can greatly streamline the entire process by bringing financial and other applications under one umbrella with a suite of software solutions.

What Contractors Need

In today's business environment, heavy and highway contractors need to create an IT environment that fully integrates all financial applications, including accounts payable, accounts receivable and billings, general ledger, and payroll, as well as such essentials as inventory, materials and equipment management, equipment maintenance, and project collaboration. Such a system allows a company to streamline operations, providing real-time job cost information that enables managers to track a project's budget against estimates and improve the accuracy of job cost information.

Increased operating efficiencies result from integrated systems that provide all financial and project information in one place for everyone to use or on a restricted basis. Such a system improves forecasting, financial reporting, equipment utilization, personnel manage-

ment, and reporting of safety. Solutions also can include labor management, document content management and a fully integrated imaging system. For those with A+B contracts, an integrated system shows management an accurate picture of project status as it progresses towards completion.

Job costing and equipment management applications are essential tools in today's construction environment. For example, the job costing function can be combined with historical information on previous job costs, resulting in accurate and competitive project bids. The system provides highly detailed monitoring on an ongoing basis, helping to track whether a project is on time and within budget. With easily generated job cost data reports on production quantities, the cost of completion can be more accurately predicted, triggering proactive measures, if necessary, to ensure timely and on-budget completion.

An integrated system will track equipment usage as well, including data on parts taken from inventory and any use of outside services. Equipment can be more effectively managed with records for preventive maintenance, utilization and availability. Other benefits include automated reporting that provides a means for better management of fuel costs and linkage to GPS systems to track equipment, plot the best route to a job site and monitor equipment use. The bottom line aids in effective time management of equipment and the personnel involved with that equipment.

Customer Feedback

Above all, an integrated system creates a host of financial advantages. Computer Guidance Corporation (CGC) system allows comparison of historical work, helping a business grow through accurate job costing and other efficiencies. This particularly benefits a heavy construction or highway contractor in a down economy when margins are slim, because it allows them to be more competitive and more profitable.

For example, using a fully integrated system from CGC, BRB Contractors Inc., a Topeka, Kan.-based heavy construction contractor, has seen a 25 to 30 percent gain in operational efficiency, according to Daryl Shupe, BRB's vice president of finance.

"We now have project managers and executives using the system to get real-time project cost information, allowing them to make instant decisions. Also, historical job cost data is immediately available to determine accurate estimates for bidding jobs," Shupe commented.

S.T. Wooten Corp. of Wilson, N.C., has been using an integrated CMS system for nearly two decades. Harold Hurdle, the company's director of information

technology stated: "Our IT capabilities have always been an extremely solid and flexible tool that have facilitated continuing expansion. Even with dramatic growth, we have been able to control internal staff and infrastructure costs to maintain and optimally run our financial systems."

For Jensen Civil Construction of Jacksonville, Fla., the key to its needs was the system's imaging, document management and workflow capabilities, allowing for improved operational efficiencies throughout the company, noted Michele Hubert, the company controller.

According to Frank Clyde the controller at Fisher Industries, a Dickinson, N.D.-based heavy and highway contractor, "an integrated system allowed us to conservatively extend the life of our equipment fleet by approximately 20 percent, as well as improve equipment utilization by 15 percent." Fisher's Chief Financial Officer, Amiel Schaff, added: "we could not have grown revenue 800 percent and diversified our business model to deliver such a complex mix of products and services over a broad geographic area without a fully integrated system in place."

Costs & Training

The cost of implementing a new integrated system is based on the number of concurrent users per software module. The power-system hardware — such as an IBM iSeries mid-range system that runs UNIX, Linux, System i and some Microsoft Windows-based applications, all on the same platform — starts at around \$8,000. IBM Global Financing is usually available to help contractors finance an integrated system purchase.

Training for the system is based on a customized plan developed for every company. The plan incorporates processes to successfully implement an integrated system, including a conversion process, movement of data, and individualized training on a per department basis. Classroom and individualized onsite training also is provided to orient new users to the system. Typically, it takes six months from system implementation to going "live."

The IT requirements of heavy and highway contractors are as diverse as the projects they undertake. The most effective approach to meeting those needs is a centralized system where all applications are fully integrated for optimal operational efficiency, providing an improved bottom line and a distinct competitive edge.

Roger Kirk is CEO of Computer Guidance Corporation, a Scottsdale, Ariz.-based developer of financial and project management software solutions for the heavy and highway construction industry.