

SPECIALIZED VS. INTEGRATED SOFTWARE SYSTEMS:

Which Works Best For Construction?

BY FRED ODE



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In a perfect world, contractors could select just one construction software product, from one vendor, to run all aspects of their business: estimating, accounting, project management, scheduling and so on. In reality, many all-in-one enterprise software systems available today can be too expensive, complex or functionally deficient to be of any real value to contractors.

Contractors continue to debate the merits of vertical, best-of-breed construction software solutions (such as stand-alone accounting, estimating or project management applications) and horizontal, fully integrated enterprise construction software solutions.

Twenty years ago, technology experts predicted that stand-alone construction software products would be replaced by fully integrated systems—thinking a single software would solve all of a contractor's business problems in a more efficient way.

Today, only a fraction of contractors, usually the largest, use a single, fully integrated system to manage their businesses.

An Integrated system, while promising greater convenience, fewer overall technology costs and efficient data sharing, have downsides for the average contractor. Expensive integrated software solutions may have more features than most contractors need.

Best-of-breed construction software systems, meanwhile, are designed specifically to excel in just a few applications. Providing rich functionality and sophisticated features, these vertical construction software solutions continue to gain ground among contractors despite the challenges of maintaining separate, often disconnected, systems.



ADDING CONSTRUCTION SOFTWARE AS THEY GROW

Not many contractors would be willing to buy a whole new fleet of equipment when all they really need is to replace a few outdated models. The same goes for their technology investments. Most contractors look for software solutions to help them improve productivity or efficiency in an area that is causing problems. Chances are, the problem is not widespread. They may be using one or more software applications to save time and solve problems in other areas of the business. And, if employees know and use those applications efficiently, why would they want to replace them?

Such was the case at Beard Construction Group, a growing excavating and sitework company located in Port Allen, La. When Jim Beard and his partner, Keith Coleman, started the company in 2004, they purchased an estimating and bidding software product designed specifically for heavy construction. Their experienced staff of estimators already used the product extensively, and it was well-suited for their trade.

Within six months of starting the business, however, Beard Construction realized the basic off-the-shelf accounting system was incapable of keeping pace with the company's rapid growth. "We saw that we had to have something more capable of handling the size company we appeared to be growing into," Coleman says.

Beard sought a best-of-breed accounting package to handle the company's labor-intensive job costing and reporting requirements, as well as an upgraded system capable of integrating with the estimating system for greater efficiency and productivity.

Why didn't Beard choose a fully integrated system from the start? Before launching the company, Coleman had negative experiences with enterprise systems, which included applications for accounting, project management, estimating and other business functions.

"They were, in my opinion, somewhat complicated, and required an IT department to support them," Coleman says. "We spent a lot of time implementing new systems and getting the systems to function properly."

FUNCTIONALITY VERSUS SHALLOW FEATURES

Likewise, HTH Companies, a mechanical insulation contractor based in Union, Mo., did not consider an integrated construction software system because of the unique requirements of its business. According to Controller Susan Hellebusch, the company looked at a few products that offered



combined estimating, accounting and project management applications, but none contained the right functionality.

"Because we are a very specialized trade, it's impossible to find something that has the specialized features we need, without paying an exorbitant price," she says.

Instead, HTH Companies uses a takeoff/estimating system specific to mechanical insulation contractors and a construction-specific job cost accounting system designed for labor-intensive contractors that includes a basic project management module. Having separate software products that handle specific functions is a major benefit, Hellebusch says, not a liability.

"The real measurement of our technology success is the impact it has on overhead," she says. The fact that HTH Companies has added minimal support staff in the past six years—during which time the company has doubled in employee size and revenue—"is a good indicator that our software has the capabilities we need," she adds.

How does a contractor decide which software solutions will best serve the company? Is an à la carte best-of-breed solution or a buffet-style integrated system better?

Here are some key considerations:

- **Cost**: As with any business investment, costs must be balanced against benefits. In other words, three or four best-of-breed applications may cost more than one integrated system, but will higher functionality and time-saving efficiencies result in greater savings?
- **Business risk**: Fully integrated enterprise systems are riskier because they are less likely to meet all the requirements of a business. Contractors that choose to use best-of-breed solutions, however, need to consider the technical risks involved in keeping users trained and maintained on separate systems.
- **Business processes**: To successfully implement any software solution, contractors need to review current business processes and align them to work with a new system. This is especially critical with an integrated system because the implementation generally requires more resources than a best-of-breed solution.
- Integration and data sharing: While an integrated system should offer data sharing advantages over disconnected software products, many so-called integrated systems are actually the result of larger companies acquiring specialized best-of-breed systems so they can claim to offer end-to-end solutions. However, many sophisticated best-of-breed products provide easy integration (and more data-sharing capabilities) with other vertical software products, thanks to open database structures and vendor collaboration initiatives.
- **Usability**: Rather than selecting a software product based only on features, functions or integration capabilities, contractors must consider how easy and efficient the product will be to use. Unless end-users buy in to the product, the solution has little chance for success.



Despite how far contractors have come in using software technology to their advantage, the push for greater productivity continues—and so does the debate on best-of-breed versus fully integrated construction software. While larger contractors slowly test the waters of fully integrated enterprise solutions, small and mid-range companies are creating their own end-to-end solutions through the use of best-of-breed products that offer appropriate integration and data-sharing capabilities.

FRED ODE



Founder & Chairman/CEO Foundation Software, Inc., of Strongsville, Ohio

He started the company in 1985 after spending several years developing customized software systems for the construction market. He has managed the growth and development of the company from start-up to leading supplier of construction accounting software.

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