BuilderMT
MANAGEMENT TECHNOLOGY
direct results

Wireless Workflow Linked to Integrated Systems

Texas-based Graham Hart Home Builder Used Integrated Software to Go Completely Paperless… With a Dramatic Return on Technology Investment

Imagine a household of a family of four trying to manage their everyday lives. It's more complicated than it looks, even when events are predictable and the household is well run. There are schedule conflicts, disagreements to negotiate, transportation to arrange, items to purchase, bills to pay, and money to manage. Now imagine that same household operating with four occupants who each speak a different language. Crazy, right? Each person would need his or her own translator, and every translator would have to speak all the other occupants' languages. Organizing something as simple as a tennis match would be a nightmare of crossed wires.

Ok, now imagine a typical home building business where the departments can't share information, where each department needs a translator to speak to any other department. It's ridiculous, isn't it? Yet this is what many home builders go through every day. Sales can't directly "speak" (a.k.a. *share data with*) accounting; job superintendents can't authorize payment for work completed; scheduling can't talk to anyone, and accountants are left screaming in a language nobody understands. Translators—in the form of people or custom data-migration software—are required to move data from silo to silo. If you *don't* have this problem in your building business, you have been either very rich or very wise:

- *Very rich*, because you have paid someone to write data translation paths ("translators") between your business software modules that otherwise wouldn't be able to communicate.
- *Very wise*, because you were smart enough to purchase a system that "pre-integrated" the various data silos created by a typical building business: sales, jobsite superintendents, estimating, workflow management/scheduling, work orders, accounts receivable/accounts payable, change orders/variances, warranty management, and general ledger accounting. (See sidebar, What Does "Integration" Mean?)

A Single Version of the Truth

Let's go back to our family of four, in that crazy household where they speak different languages. Let's say there's been some confusion, and the family is trying to reconcile what happened and who was responsible. Unfortunately, there are four versions of the truth and these versions are expressed in four different ways. It's a nightmare sorting through versions, as the head of the household's interpreter translates back and forth among players. The same is true for builders. If the sales department upgrades Mr. Wodehouse's carpet to a beige Berber for the living room on Lot 6, a vendor-specific purchase order (with price, quantity, delivery address, job code number, etc.) has to be created for procurement, and that same data has to get to multiple departments to generate payment and records for calculating the closing price. But what if the sales, procurement, accounting, and legal departments are all on different systems, like Excel, QuickBooksPro, and paper records? It will take epic amounts of time for a worker to physically move this data around. If this happens just once per start, it puts a substantial drain on the builder's human resources, driving up his costs and lowering his margins.

Allowing each department to work on its own software with independent data just proliferates "versions of the truth" and causes havoc when it comes time to sort out what was ordered/who was paid by whom, for what house, at what time, and for what price. Wouldn't it be better to have one version of the truth, with every department working from one single, "inviolable" database?

Software, Hardware, and Online Services:

- Timberline accounting
- Timberline estimating
- Blackberrys on the Sprint/Nextel data network
- BuilderMT Workflow Management Suite
  - Wireless scheduling
  - Purchasing
  - Sales pricing module
  - Model option database

Stepping Up to Integration

Let's look at a before-and-after case study of a real American builder who initially had a few software systems and paper-based systems which he converted—with impressive results—to an integrated system that has had a dramatic return on investment.

Graham Hart Home Builder builds homes in the booming Dallas-Fort Worth market. In 2005, Graham Hart Home Builder put up 69 starts using 3 models, but with land already optioned or purchased, the company will move to 120 starts using 5 models in 2006. Until recently, Graham Hart Home Builder used QuickBooksPro and Excel to perform all its front- and back-office business functions (sales, management of jobsite superintendents, estimating, workflow management/scheduling, work orders, accounts receivable/accounts payable, change orders/variances, warranty management, and general ledger accounting).

Everyone knows that QuickBooksPro is easy to use; indeed, many builders larger than Graham Hart Home Builder use it to manage their businesses. Excel is also easy to use, and it has some ability to transfers data to and from QuickBooksPro. But the question is not how easy the software is to use, but how well it runs your business. If the sales department receives a change order, can QuickBooksPro and Excel—without intervention by "translators"—work with your schedule to create a work order and purchase order, with the right pricing, so that the job expense is properly allocated, the superintendents updated, the subs alerted, the payment authorized, and the proper client billed, with complete reconciliation back to the general ledger? And, can it do that across 100 starts? 250 starts? That's a tall task, and it doesn't matter how easy QuickBooksPro and Excel are to use. A kid's toy screw gun is easy to use, but you would never use it to install your drywall. Tracking data generated by a professional home building business requires professional-grade integrated software.

In one fell swoop, with the implementation of an integrated accounting system (Timberline) and a process management system (BuilderMT), Graham Hart Home Builder went from QuickBooksPro, Excel, and lots of wasted time and paper to an entirely integrated, entirely paperless, invoice-free, checklist-driven, purchase-order system that Graham Hart Home Builder's superintendents drive wirelessly from the field using Blackberrys. With this workflow management approach, Graham Hart Home Builder immediately saved two full-time equivalents (FTEs). There is even more "staffing avoidance" to come, as the company grows its gross without adding staff Graham Hart Home Builder net-net margins are 5%, but they are tracking to double that and to achieve 10% in 2006, with just this technology implementation. To figure out the savings in dollars, that 10% is saved on a gross of $16.7 million gross in 2005, with 69 starts and 3 models. Graham Hart Home Builder will book $20 million on 120 starts and 5 models and start three communities in 2006 that will yield a gross of $35 million in 2007. Cycle times have dropped dramatically; now they average a remarkable 110 days per house. Before integrated software was installed, Graham Hart Home Builder's superintendents had the power to inspect the property and approve payments of work and materials. But they had to submit these changes on pieces of paper. "Data had to be reentered at the office, and we have no schedule tracking, just 'static' Excel cells that were not fully integrated to QuickBooksPro," said Shawn Goff, President of Graham Hart Home Builder. "Every different piece of information was in a silo, disconnected from every other piece, and not integral to our central accounting."

After the installation of integrated software, Graham Hart Home Builder was able to preload schedules and checklists (and sub-checklists that drill down to such specifics as "painter removed tape from windows") on its superintendent's Blackberrys. "Upon work-stage or job completion approval, the super signs off and that wireless signal triggers schedule updates, messaging, accounting updates, and payment . . . all linked to one database. All our systems came pre-integrated; we did not incur the cost of custom code," added Shawn Goff.

With complete integration of accounting estimating, purchasing, and accounts payable—all the way down to wireless scheduling in the field—Graham Hart Home Builder has the most efficient schedule and purchase-order system of anyone in the Builder 20 Club, no small task in the Dallas-Fort Worth area.

Tom Gebes is President of BuilderMT, the building industry's best-selling workflow management software solution. BuilderMT works in tandem with Timberline Office accounting.

What Does "Integration" Mean?

If you have ever used a tax program like TurboTax, you've used an integrated system. An integrated system means that data you enter once automatically populates data fields where it may be required later. For integrated builder software, let's take an option price for example. Once you have a price for a precut SPF stud, why would you want to reenter it on every job start, in every framing estimate? Enter it once and the integrated system smartly carries the information to data tables where it may be required.

Sounds simple right? It gets more complicated when the SKU for the variance charge [charge correct here?] order has to be dynamically inserted into a subcontractor-specific work order, a vendor-specific e-purchase order, and an accounts payable system, so that the final cost of the house can be calculated and presented in closing documents two days from now. Hint: don't try to do this yourself—buy good software and hire a pro. —T.G.

The Results of Integration for Graham Hart Home Builder

- Cycle-time reduction: Now down to <110 days per home
- Net margins: 23%, including land
- Return on technology investment: Net-net margins will be driven from 5% to 10% in the first 18 months of full implementation, arguably giving an return on investment of net 5% on $16.7 million gross (software and consulting cost around $100,000). Savings will compound year-on-year.
- Graham Hart Home Builder now runs a totally paperless, automated invoice–purchase order–work order system. "We don't even look at invoices, because the costs/work are pre-authorized when a bid is accepted; invoices are often paid before we even get them; vendors love us," said Shawn Goff. "We also don't even have to issue work orders, because the pre-approved costs/work bid serve a dual role as the work order. Those savings add up." —T.G.

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