



BCG IT UPDATE

BURGER CONSULTING GROUP

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Information Systems Consulting to the Construction Industry

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IT Conference Notice

Register now for the upcoming Technology for Construction conference, and join architects, engineers and construction professionals from around the world to exchange ideas and strategies.

Technology for Construction (held with World of Concrete)

Las Vegas Convention Center
Conference: January 16-19, '06
Exhibits: January 17-20, '06
Questions? (888) 962-7469
technologyforconstruction.com

BCG has arranged a discounted registration rate for clients. Use source code "BC" when you register online for the Technology for Construction session before Dec. 30 and receive a discounted rate of \$85 per session and \$25 for exhibits. After 12/30, rates are \$125 and \$55 respectively.

Technology at the Forefront

A Message from Christian Burger



In our last newsletter I suggested that construction company management was newly emphasizing IT issues after a few years of relative calm. Now I can confidently say that the market for construction IT systems and services is running at full steam—and Burger Consulting Group has seen a commensurate increase in requests for assistance.

No doubt this is due to the relatively strong construction market in 2005 and what looks to be a favorable one in 2006.

To meet this demand, BCG has expanded client services and operational capabilities with the addition of three new professionals. Doug Nichols, a long-time financial executive in the industry, joined Burger Consulting in May of 2005, and has worked with many of our clients since coming aboard. Lauri Reeves started this fall and brings considerable experience in office administration and project coordination. (See inside for more on Doug and Lauri.) Our most recent addition, too late for inclusion in this edition, is John Patridge, a former senior consultant with Profitool and Allegiant. John brings years of experience as an IT and systems specialist in the construction industry. Expect more on John in our next issue.

At Burger Consulting Group, clients are paramount. We're growing in response to market conditions and client needs, and when the right professionals with the right skills become available, we will continue to add to our IT consulting capabilities.

Imaging & Workflow

Market Trends & Opinions by Doug Nichols

Document scanning technology in the construction industry is entering a new era. Introduced about ten years ago, the technology was a stand-alone system with loosely formed interfaces to accounting applications. Early adopters were quick to see benefits through improved efficiency in invoice approval, access to stored documents, and productivity in producing billing backup (no more afternoons at the copier with a manila folder full of invoices.)

As these applications, such as Construction Imaging Systems, matured, the interfaces improved. But the industry was slow to adopt the technology because it was expensive. Eventually, accounting/job cost software vendors real-

ized that they had to provide this functionality natively in their applications to leverage the considerable amount of related data maintained in their systems. This eliminated the issue of maintaining an interface with another application. However, these vendors have a considerable way to go to catch up with stand-alone vendors in terms of functionality.

One clear area of growth in our business is implementation project management and support. In a trend we first saw develop several years ago, BCG's clients are increasingly interested in our acting as implementation project managers after software selection. Recently, we played an important role at several major general contractors during the implementation phase—one for a client for whom we were not involved in the selection, and the other for a company that had tried to "go it alone" but decided the workload, complexities, and risk were just too great. This aspect of our business is definitely becoming more important; both Doug Nichols and Sharon Minnick have been working with clients in this capacity. John Patridge's experience will be highly leveraged in this area as well.

I am particularly pleased with this new responsibility as I see it as being a part of BCG's delivering a complete solution for companies—and not just helping them buy the right tools. We continue to perform software selection work and thoroughly enjoy it, but it is through implementation work that we bring to bear all our experience and knowledge of industry best practices.

We're working hard for our clients as always, we're further developing services you need, and we're busy presenting on IT tools, capabilities, and opportunities at industry events. In conjunction with CFMA, we recently presented on "IT Trends and Management" at the AICPA Indianapolis, at the Tri-State CFMA chapter presentation in Council Bluffs, and at the Central Tennessee chapter of CFMA. For more detail on upcoming presentations, and for updates on articles published by BCG professionals, please see our sidebar, "Our Professionals Present," inside.

ized that they had to provide this functionality natively in their applications to leverage the considerable amount of related data maintained in their systems. This eliminated the issue of maintaining an interface with another application. However, these vendors have a considerable way to go to catch up with stand-alone vendors in terms of functionality.

In many ways, the issues are similar to those of project management software: should you choose best-of-breed software vs. a vendor-integrated solution? Both options have advantages. Typically, imaging software developers offer a more mature, feature-rich offering whereas construction industry ERP software vendors offer less mature, more

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Imaging & Workflow *(continued)*

basic functionality, but with the important merit of integration. Below are the pros and cons of each:

Integrated Application

Pros

- Imaging file attachment feature is easily accessed and integrated within the software
- Workflow applications can use existing system architecture to simplify processing
- A single system to support and maintain
- Typically are significantly less expensive than imaging vendor systems

Cons

- May not support documents outside software application
- May not support viewing all file types
- File management typically depends on external links that may change
- Security of files is limited and typically dependent on network
- Document legality may be an issue

Imaging Vendor Application (best-in-class)

Pros

- Provides central repository for all document filing and management
- Advanced features, such as full text search and OCR
- Robust security provides better protection
- Easier to manage and view multiple images simultaneously
- A single system for managing images across multiple software applications

Cons

- Typically significantly more expensive than vendor-integrated modules
- Integration with accounting/job cost software not as robust or seamless
- Must keep integration synchronized when changes to either software occur
- Vendors may lack construction industry knowledge

If your company is currently using an entirely paper-based filing system, electronic document management will significantly improve efficiency and productivity. The challenge, as always, is to identify features and functions that maximize efficiency and reduce the cost of your existing filing systems and processes.

For more information on document imaging software and integrating solutions, contact Doug Nichols at (847) 236-0865.

Northwestern's Masters in PM

Northwestern University's Robert R. McCormick School of Engineering and Applied Science offers a Master's in program management for construction and engineering undergraduates with field experience who are being trained for project or practice management, or operations management. The program, taught by NU faculty as well as many excellent adjunct professionals from the industry, covers advanced subjects in construction and engineering from a business and operational perspective. Recently, Christian Burger was invited to teach a core course in Automation in Construction and Engineering; ten students are enrolled in his class this fall. This winter, the course will be taught by Kristine Fallon, a well regarded architect and consultant from Chicago; in spring, it will be taught by John Jurewicz, also a highly regarded Chicago architect. Other courses are taught by senior members from companies like Rise Group, Turner Construction, Walsh Construction, and UOP Corp. For information, visit mpm.northwestern.edu.

Recent Selection Results

Jones & Frank	Norfolk, VA	Solomon Software
Morsey (Harper Industries)	Calvert City, KY	Viewpoint
Granger Construction	Lansing, MI	CMiC

BCG's recent engagement at Jones & Frank, a Norfolk, Virginia PEI contractor, was interesting and instructive. Involved in the "PEI" sector—industry-speak for companies involved in petroleum tanks, dispensers and fuel depots—Jones & Frank's business incorporates elements of service management, construction, and distribution. Our challenge was to help find an application suite that would accommodate all three service areas well. Our first pass yielded good results alternatively for the combination of construction and service but not for distribution, or for distribution and service but not for construction. No one software seemed to handle all three. We expanded the search and began evaluating Solomon software, presented at the time by SIS, a long-time distributor of the Solomon product. After due diligence and numerous demonstrations, department managers from Jones & Frank unanimously decided that Solomon was a great fit for their respective business units and would meet their accounting needs. Now the real work is beginning, as Jones & Frank embarks on implementation.

Doug Nichols Joins BCG



Burger Consulting is pleased to announce that Doug Nichols agreed to ally with us in May 2005, bringing over fifteen years' experience in the construction industry—many as a CFO and controller. Significantly, Doug recently worked as a business partner with CIS,

where he gained considerable experience with the benefits and drawbacks of a stand-alone imaging solution. After having run his own consulting firm for years, working with contractors and their IT issues, Doug quickly acclimated to our environment and is working with many of our clients as they develop an imaging strategy for the coming years. We're very enthusiastic about his association with us and, if early reports are any indication, it's a good fit for our professionals and clients. Feel free to contact Doug at dcnichols@burgerconsulting.com or at (847) 236-0865.

BCG Hires New Coordinator

In a significant step forward for BCG's administrative and operational support, we're happy to announce the appointment in November of Lauri Reeves as a Senior Project Coordinator. Lauri has nine years' administrative and project management experience at large financial institutions in Chicago, helping smaller firms gain support and grow. Many of you will meet Lauri in coming months as she is integrated into current projects; she's already providing important leverage to the consultants and is the reason many of you reach a friendly voice when calling BCG.

GEAC Acquired by PE Firm

In early November it was announced that software company GEAC is being acquired for \$1 billion by private equity firm Golden Gate Capital. Many of you will doubtless remember GEAC as a consolidator of software companies in the construction industry several years ago, having acquired Concord, Marathon, Jonus & Erikson, and several others. Even with its development of the StarBuilder application—GEAC's effort to build a migration platform for contractors who were on older construction platforms—the company had failed to reach its larger objective of competing successfully in the construction software industry. Too, one of GEAC's largest shareholders, Crescendo Partners, had been highly critical of the company's acquisition strategy and its pace of integration.

Unfortunately, neither the construction industry nor StarBuilder was mentioned in the press release on this recent transaction. And, according to Golden Gate's web site, the construction industry does not appear to be an industry vertical this equity group focuses on either. In conjunction with Explorer's recent acquisitions, Best's acquisition of Timberline, and Maxwell's somewhat new outside ownership, many lower- to mid-level software products for the construction market are now owned by people from outside the industry. What they hope to bring to their respective customers is a question I am sure is on the mind of everyone.

Neither is the upper end of the market necessarily a safe haven—as the customers of formerly independent J.D. Edwards have learned. All of which means that constant awareness and appraisal of ownership changes in the construction industry software market is necessary to guide strategic thinking and assure software support.

ConstrucTech Vision Awards

The ConstrucTech Vision awards banquet is historically a well-attended event attracting many contractors and their respective software/hardware business partners. This year's event was no exception; held in Chicago this summer, the awards competition saw more than 70 ballots submitted from various construction companies around the US. As one of the judges, Christian Burger reviewed nominees on a number of criteria, from "Value of Return" to "Innovation" and "Roll-out Strategies." There were many winners in categories ranging from residential to commercial building and from small companies to the very large.

Interestingly, most nominees purchased existing solutions "off-the-shelf," but only a few simply implemented that package as it came. Instead, contractors used the purchased software to build better tools for their organizations. Many of the winners had made a strong commitment to training and implementation rather than just the ownership of the technology. Finally, a significant number of the innovators were using technology to improve field input, integrate systems, or open up their systems to suppliers and customers. These reflect top trends we see gaining momentum in the industry.

Explorer Buys Farrell Systems

Jim McFarlane of Explorer Software, with whom Burger Consulting has had a working relationship for many years, informs us that the company has continued its acquisition strategy, recently purchasing Denver-based Farrell. Only last year, Explorer acquired both Versyss and Conac, two other legacy accounting systems for the construction industry, and this recent acquisition will undoubtedly put Explorer's total customer base at more than 1,000 construction businesses. Jim advises us that his challenge is figuring out how to continue to support all these products while developing a migration path for older systems to the newer Explorer platform. For more details, visit the Explorer web site at www.explorer-software.com.

Expedition Goes Web

BCG sees a few leading construction companies working to implement the latest version of Primavera's Expedition. Now web-based, Expedition 10.0 eliminates the need for Citrix or Terminal Services to gain remote access; and we're seeing more general contractors use Expedition because they like the tie-in with P3 for scheduling and are adopting that feature. However, some BCG clients are taking a conservative approach—allowing others to implement this newest version of Expedition while they themselves remain on version 8.5, the last client/server version, which was both highly functional and very stable.

Our Professionals Present

January 18, 2006

Technology for Construction, Las Vegas

- Christian Burger
"IT Strategy in the Contracting Company"

January 18, 2006

Technology for Construction, Las Vegas

- Christian Burger
"Managing Organizational IS for Optimal Results"

May 20-24, 2006

CFMA's 2006 Annual Conference & Exhibition, Las Vegas

- Christian Burger
"Current IT Trends: Think Strategically, Act Tactically"

Burger Consulting professionals have also published the following articles in recent industry trade publications:

- C.R. Burger, "How CIOs Can Work More Effectively with Software Vendors," *Construction Executive* (Sept. 05)
- C.R. Burger, "Construction Technology: IT & Strategic Thinking," *CFMA Building Profits* (July/Aug. 05)
- C.R. Burger, "Automated Scale House & Trucking," *CFMA's Talking Heavy*
- M.P. Dow, "New Lines of Communication: The Financial Impact of VoIP," *CFMA Building Profits* (May/June 05)

Making The Case

Best Practices for IT Managers to Plug IT Internally by Mike Dow

At BCG, we often hear from clients that a company's management team doesn't appreciate the importance of information technology. IT managers report fielding questions like "What is IT's value?" They hear "Is it strategic? Is it part of operations?" Often, they hear "Should it be outsourced, to save headaches and frustration?"

Answers to these questions differ greatly by organization. But in an environment where such questions are being asked, managing an IT function is not easy. Worse is the situation where no questions are asked at all, because leadership doesn't take sufficient interest in the function.

Either way, as head of IT, you have to help top management understand information technology better. Three principles can help your IT shop stay functional, be recognized for its importance, and act as a well-understood support organization in your organization: Connect to the business; communicate well; and make the financial case for IT's benefits.

Stay Tuned In

If no one in your department has been to a job site in months, then IT is in big trouble. And it can easily happen. Your team gets buried in technology problem-solving, and it's easier to sit at a workstation in the cozy confines of a cubicle than to get out on a site and see the work in action.

IT departments must stay connected with the business. Everyone in the group—from programmers to managers to data-center support personnel—needs to talk to the people on the ground. Construction managers produce top-line revenues and deal with customers' needs every day. These are your bread-and-butter users, and the IT group needs to know how they use technology and what they need.

What to do when you visit the site? Look at work spaces. Try to understand the daily work load for on-site project managers, construction engineers, and crews. Sometimes, it's enough to stop in and say why you're there: shown a little interest, people will usually share information about a network or information management challenge. And, because they don't really understand what you do, be sure to share your challenges with them.

A major benefit of connecting proactively with users is to solve infrastructure problems. End users have a personal relationship with the team, someone they can call for help when something goes awry. Knowing that, users will likely give you the benefit of the doubt as you work to solve their problem. Think of it as building "credit" for when there are IT problems that subtract from users' faith in and perceptions of IT.

Get the Word Out

Job site visits are good and necessary. So is internal communication, partly just to combat the perception that IT people are not good communicators. IT managers need to tell people what's going on in their group. Company newsletters are a good place to start; "lunch-and-learn" sessions, company meetings, and voicemail and email are all helpful. Keep communications regular, concise and informative.

Don't overwhelm them with email, either! Get creative. Here are a few places to communicate IT "blurbs":

- Scrolling banners on the company intranet
- On the system log-on screen
- Screensavers
- Notes placed inside new cell phone or PDA boxes
- Help Desk voicemail greetings
- Messages transmitted live to screens
(available in Citrix and other applications)

Communications are most effective when part of an integrated plan, and different tactics can be used for certain situations. For example, Help Desk greetings let people know about current outages or problems, taking pressure off personnel who are trying to solve them.

Get the Facts

No one likes surprises. Almost all construction projects are run on a budget; all have contingencies. Company management will better understand what your IT group is doing if you've said early and often what their expectations should be. Conversely, managers get justifiably frustrated with IT personnel who request unplanned spending for hardware and software, or who present poorly supported proposals for new technology. At many companies, buying a \$5,000 server chews up all the profit on a \$100,000 project.

Not everything can be foreseen, but IT managers must develop and communicate anticipated capital outlays, expenses, and contingency spending during the company's regular budget cycle. Preparing a budget is also a good time to discuss what services will be outsourced (e.g. spam filtering, VPN management, etc.) versus what will be managed internally. Cost/benefit analyses can be dissected and challenged, but at least management can see numbers alongside ideas. Don't be afraid if your proposal gets rejected in any given year on the basis of financial constraints. That's just business reality, and one that IT people sometimes forget.

There are a number of ways to collect facts about what the IT department is doing and why. One is industry benchmarking, by participation in industry roundtables or through the CFMA's annual technology survey. A call to another similar-sized contractor can be a great benefit; most companies will share IT ideas with a contractor from a geography that does not compete with them. If your management and peers learn that other comparable contractors use certain technologies, it can help make a case for investment.

Lastly, much information can be collected about the infrastructure that helps when communicating IT strategy. What is the company's bandwidth utilization? How many PCs are three years old or more? How much time does the team spend cleaning up viruses every month? Most of this data has financial implications and should be tracked to help communicate why investments are required.

There is no magic to IT departments having a good reputation with peers. It depends on good communication, informed by knowledge of the business, delivered succinctly and effectively, and buttressed by financial and operational facts.