

CONSTRUCTECH

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Technology has proven to be the biggest differentiator in the construction community...

...discover which companies have the vision to use technology as a strategic weapon.

COLLABORATIVE DESIGN

HELPING PROJECT TEAMS
MAKE A SMOOTH TRANSITION

INSIDE THE NUMBERS

INTERPRETING THE
ECONOMIC INDICATORS



Rose's vision was to build a company around the latest project-management technology, which would allow him to select and run projects himself rather than hiring project managers to supervise the work. He strongly believed technology could expand the amount of work a single project manager could perform. He also realized that computers could help reduce paperwork, which, in turn, would increase the speed and improve the quality of distributed information. Additionally, he understood that electronic information is easily reusable and adaptable to future projects.

E.M. Rose specializes in the construction of high-end, luxury homes that require several years to complete and millions of dollars to build. Weekly project meetings can involve dozens of professionals, including the builder, architect, general contractor, interior decorator, and engineers. Rose understands that a successful project requires devotion to detail as well as extraordinary service to the client and architect.

In 1999, Rose realized that to remain competitive and distinguish his company from the competition, he had to adopt technology throughout his organization. By implementing computers at jobsites, using the Internet, and working electronically, Rose reduced his company's reliance on paper and increased its ability to distribute information. Yet implementing the appropriate technology tools—those that improve efficiencies without changing personnel or processes, and increase profits without increasing staff—was a significant challenge.

Rose met that challenge by implementing the StarBuilder accounting software developed by Geac AEC

Business Solutions, Tampa, Fla., as well as Geac's StarProject for Notes project-management software, which formed the basis for the deployment of other technologies, including document management, sharing, and routing and review systems. StarProject for Notes integrated with StarBuilder strengthened communications, as data can be immediately transferred to employees no matter where they are located. The project-management and accounting systems are integrated with IBM certified software for construction accounting using Microsoft SQL Server, fully integrated with project-management software built on Lotus Notes and estimating software developed by WinEstimator, Kent, Wash.

Rose also adopted a unified messaging system, which routes all voice messages, faxes, and emails to a unified desktop inbox. CallXpress Unified Messaging and RightFax, developed by Captaris, Kirkland, Wash., allow employees to receive messages and forward, copy or archive them from anywhere. Voice messages, faxes, and emails can be received on Palm 705 devices. The messaging technologies enable instantaneous communications on any changes to all vendors simultaneously and on the impact of those changes to schedules and costs.

The impact of Rose's aggressive technology adoption strategy is obvious. One of the company's major competitors employs nine project managers and generates \$40 million in annual revenue. Rose, meanwhile, is the sole project manager and generates \$15 million in annual revenue.

Constructech Vision Awards judge Evan Yares call E.M. Rose's strategy "a good implementation of several technologies to gain a significant business advantage."



MULTI-FAMILY BUILDER



GOLD
Clark Realty Builders
Bethesda, Md.
www.clarkrealty.com

Travel is a necessity for contractors that build projects across the country and Clark Realty Builders, Bethesda, Md., is no exception. The company builds multifamily dwellings, including apartments, assisted-living facilities, and town homes and has more than 5,000 units of residential multifamily work under construction throughout the United States. Additionally, Clark is involved in the construction of commercial office buildings, corporate headquarters, medical facilities, institutional facilities, hotels, stadiums, arenas, retail facilities, airports, and correctional facilities.

Following the tragedies of Sept. 11, 2001, however, it became more costly and inconvenient for Clark personnel to travel to the company's many offices and jobsites. Yet employees needed to conduct face-to-face meetings with colleagues at remote locations. As a result, Clark implemented a videoconferencing system in several of its major offices.

Clark Realty Builders has its roots in a company founded nearly a century ago—the George Hyman Construction Co. George Hyman started the firm in Washington, D.C., in 1906 and it eventually became one of the nation's leading general contractors. Some 71 years later, OMNI Construction was formed in response to the demand by the Washington, D.C., development community for merit shop contracting. Then, in 1996, Hyman and OMNI merged and now operate as The Clark Construction

Clark Realty Builders implemented a video-conferencing solution to allow personnel at the corporate office to communicate with jobsites.





E.M. Rose Builders relies on various forms of technology throughout its operation to improve efficiencies and increase profits.

The savings generated as a result of not having to warehouse and organize huge amounts of paper has justified the cost of the application and reduced administrative man hours by at least 10%.

The Hudson River Park Trust accomplished its primary goal, effectively managing a massive development program, by relying on a project-management system. As a result, workflow efficiencies have improved and the project is ahead of schedule.

"Big projects just beg for this type of technology. But it takes some dedicated and smart folks at the helm to make it happen," comments *Constructech* Vision Awards judge Evan Yares.



SINGLE-FAMILY BUILDER



Henry Fischer Builder Inc., Crestview Hills, Ky., picked a difficult time to enter the residential construction market. In 1980, the homebuilding industry was mired in a recession and interest rates were nearly 20%, but the builder didn't let a down economy impede its progress.

The company focused on the growing northern

Kentucky residential market and saw slow but steady growth. In 1986, the builder exceeded projections, closing 132 homes, and operations were expanded into the suburbs of Cincinnati, Ohio. Expansion continued into several Cincinnati suburbs, and the company developed a divisional structure. The first Attached Home communities were introduced, as were the Presidential series of large, more customized single-family homes.

The company was renamed the Fischer Group in 1997 and includes several entities, including Fischer Single Family Homes, Fischer Attached Homes, and Fischer Management, which provides management services to the homebuilding operations. More recently, Fischer introduced Maple Street Homes, a separate marketing entity designed to meet the needs of first-time homebuyers seeking affordable housing.

Fischer's growth led to a significant challenge: improve operational efficiencies by automating business processes. Fischer knew its legacy system was vastly inefficient. Managing paper purchase orders (POs), drawings, and customer-selection documents required a considerable amount of manpower and generated significant shipping and handling costs.

To put an end to this manual process, Fischer worked

with e to Solutions, a consultant based in Crescent Springs, Ky., to develop an in-house, XML-based enterprise resource management (ERP) system that allows POs, drawings, and customer-selection documents to be sent to vendors electronically, thereby eliminating hefty printing, mailing, and handling costs. The automated system allows vendors to retrieve the documents electronically and submit requests for payment to Fischer. Vendors can track the status of POs and find out exactly when they will be paid. Additionally, the system allows vendors to be paid via direct deposit, which improves their cash flow and makes trips to the jobsite to collect payments unnecessary.

The system also includes a central repository for all project documents, which means vendors can access computer-aided design (CAD) drawings and obtain the details needed to perform their work. They can also access details such as model and color selections made by Fischer clients.

Fischer enhanced the system so that superintendents can use Compaq iPaq handheld computers to electronically approve POs and move them into accounts receivable batches for payment. Additionally, superintendents have PO information with them at all times, allowing them to verify deliveries, issue new POs, track and

schedule tasks, and mark items for payment as soon as they are delivered.

There's no doubt that the customized system has been a success. In the 18 months that it has been in operation, Fischer has eliminated 100,000 documents from being printed, mailed, routed, and later rekeyed into its accounting system. As a result, Fischer personnel are able to focus on other, more important tasks. Naturally, clients benefit from these efficiencies as costs decrease and construction times are reduced.

Constructech Vision Awards judge Evan Yares took special note of Fischer's use of XML to develop a solution: "A large, single-family home builder was able to use XML to drive efficiencies in its operation without waiting for some industry standard to be developed."



Eric Rose was introduced to the construction industry as a teenager, working as a laborer during summer vacations, holidays, and weekends for a contractor who built an addition to his boyhood home. He learned carpentry skills during those years and went into business for himself when he turned 19. Four years later, he became a project manager for Louis E. Lee Co., New Canaan, Conn., a construction company that specialized in building estates in Connecticut and New York. In 1985, Rose joined Cutter Realty Group, where he served as executive vice president in charge of the construction division. He left the real estate development firm eight years later and founded his own construction company, E.M. Rose Builders, Branford, Conn., because he missed the challenges of the high-end residential market.