

Customer Case Study

Kullman Buildings Corp.



Kullman Uses Prolog® Software to Reduce Waste, Fast-Track Construction and Grow Revenues by 166 Percent in a Single Year

Kullman Buildings Corp. uses a revolutionary process that puts quality construction on the fast-track: modular building. Established in 1927, Kullman is the longest-running offsite construction company in the world. The Lebanon, N.J.-based organization designs, builds and installs permanent steel and concrete modular multi-story buildings and modular bathrooms to a broad range of U.S. and international markets, including education, healthcare, telecommunications, hospitality and government (such as the U.S. embassies in Guinea-Bissau, Turkmenistan and Kyrgyzstan).

Kullman completes approximately 20 projects annually and reports 2007 revenues of approximately \$44M. The company has received numerous awards and recognitions, including multiple Modular Building Institute Awards of Distinction, two National Design Build Awards and the 2007 AIA Maryland Design Award for West Short Park Pavilions.

When Avi Telyas, Kullman's CEO, acquired the company in 2006, he brought Amy Kulka-Marks on-board during the due diligence to help him turn the financially distressed company into a highly lucrative enterprise. As executive vice president of operations, one of the first things Kulka-Marks did was evaluate the company's project management technology.

Working as a strategic partner with top architects and construction management firms, Kullman offers design-build services that deliver architecturally robust buildings that satisfy the most discerning clients. Like conventionally constructed buildings, Kullman buildings incorporate traditional materials like concrete floors, steel framing and full brick exteriors. But, Kullman's buildings are modular, with components built in an 180,000-square-foot factory and transported for installation (complete with mateline work) on a prepared construction site. By expediting the construction process, Kullman offers its clients significant value by dramatically minimizing project site disruption and delivering projects in half the time of traditional construction.

"We work at a rapid deployment pace," explains Kulka-Marks. "We needed a project management solution that would facilitate our fast, efficient and productive process – and support our goal of zero defects."

Already in place at Kullman was an older version of Prolog® Manager from Meridian Systems®. After researching Prolog's current capabilities as well as competing project management solutions, Kullman chose to purchase the newest release of Prolog, along with Prolog® WebSite, because of its superior ability to manage project workflow, standardize Kullman's business processes and facilitate productivity.

"We chose Prolog," states Kulka-Marks, "because it's the most comprehensive construction tracking software in the marketplace. It's vital for us to have very organized and very exact record keeping; Prolog delivers this ability and much more."

"Our lean modular construction process is what allows our revenues to grow and Prolog has become an ingrained part of that lean culture. I don't think that we would have been able to grow our revenue base by 166 percent in one year without Prolog!"

*Amy Kulka-Marks
Executive Vice President of Operations
Kullman Buildings Corp.*

Real Time Costing through Integration

To maximize the value of its Prolog solution, Kullman turned to authorized Meridian reseller PSS Consulting Group. The East Coast-based consulting firm provided comprehensive support and training services during Kullman's redeployment of Prolog and continues to provide advanced services for better utilization of the program.

"PSS has been absolutely fantastic to work with, providing outstanding training and support," states Kulka-Marks. "Because they stay on the cutting edge of technology, they have helped us achieve specific objectives with our Prolog software." These objectives include tight integration between Prolog and Kullman's accounting software and development of dashboard functionality for enhanced executive reporting within Prolog.

Two-way integration between Prolog and Sage Timberline Office increases efficiency by eliminating duplicate entry and ensuring that both operations and accounting access the same data. Budgets are shared between the two programs. Labor costs, invoices and accounts payable data are transferred from Timberline into Prolog. Conversely, committed costs, contracts and purchase orders are transferred from Prolog into Timberline. "By integrating Prolog with Timberline, we have achieved real time costing," states Kulka-Marks.

Prolog Reduces Waste

Kullman prides itself on employing Toyota's Lean Manufacturing techniques and Lean Construction project delivery systems, which focus on eliminating wasted time, movement, manpower and more. Prolog supports that mission by centralizing all of Kullman's project data, such as architectural drawings, contracts and material procurement, enabling Kullman employees to turn to a single resource for project questions and input. "If it takes me 20 minutes to revise a drawing log opposed to three days, I have more time to do the real value-added project work," says Kulka-Marks. "Prolog helps us reduce the waste associated with tasks that don't add value to the project."

Kullman realizes a number of other benefits from its Prolog software, including:

- Reduced liability because project details are in writing and accessible in the Prolog database
- Improved executive project assessment via dashboard reports, which increases efficiency of time-strapped management
- A common and improved form of communication that ensures tight alignment with business partners that also utilize Prolog
- Enhanced employee satisfaction because staff possess an efficient tool to complete their jobs and reduce redundant tasks

- Access to data by employees and clients from any Internet connection via Prolog WebSite
- An application architecture that's in sync with Kullman's existing construction processes, versus requiring processes to be created around its Prolog solution

Growing Revenues by 166 Percent

With Prolog simplifying architecture, engineering, manufacturing, inventory and accounting processes, the construction project management solution is clearly a vital component of Kullman's recent success.

In fact, Prolog has played a key role in the company's comeback under the new ownership. Kullman generated \$16M in revenues in 2006, the year it was acquired by Telyas. With help from Prolog, the company reorganized, focusing on improving processes and reigning in waste. This resulted in a significant jump in revenues to approximately \$44M in 2007. On pace for another stellar year, 2008 revenues are forecasted to surpass \$60M.

"Our lean modular construction process is what allows our revenues to grow and Prolog has become an ingrained part of that lean culture," explains Kulka-Marks. "I don't think that we would have been able to grow our revenue base by 166 percent in one year without Prolog!"

Prolog Delivers Value

With Meridian and PSS as technology partners, Kullman looks forward to using Prolog as a tool to continually increase revenues while further developing its fast-track construction process and lean manufacturing techniques.

"Prolog is one of those tools that, if you don't have it at your construction company, or if you have it and you're not using it to the fullest, you should be asking yourself why," states Kulka-Marks. "It is one of the best tools in the industry that truly delivers value."

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Kullman Buildings Corp. Project Profile

Muhlenberg College, The Village, Student Residences Located in Allentown, Pennsylvania

The Village at Muhlenberg College consists of five three-story buildings housing a total of 150 students. These new modular residences replace seven single-floor housing units that were built in 1981 and could only accommodate 56 students. Set on a steep hill, the brick masonry structures overlook neighboring Cedar Beach Park and feature outdoor patio areas. Additional parking, laundry facilities and meeting/recreational space are all located nearby.

Kullman had also erected a new student residence building at Yale University and was chosen for this project, in part, for its ability to construct these units off-site and erect them during the summer break. "Since we could only build easily during the summer time, modular construction was very desirable," says David Rabold, capital project manager for Muhlenberg College.

Architect: Spillman Farmer, Bethlehem, Pa.

Construction Manager: Whiting-Turner, Allentown, Pa.

Key Project Elements

- 41,000 sq. ft. of modular construction set on a steep hill
- Five, three-story buildings with full brick facade
- Six suites per building; a total capacity of 150 students
- Standard suites include three single rooms, one double room, a full kitchen and bathing facilities
- All units are air conditioned and accessible to physically-challenged students

Start Date: January 2007

Completion Date: August 2007

Results: Foundation began on-site on May 21, 2007. Kullman began setting modules on June 14. All five new buildings were set in under 8 weeks during the summer months, and by August students were ready to move in for the 2007 fall semester.



August 2007



June 14

June 25

July 11

KULLMAN
REINVENTING CONSTRUCTION



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