

## Customer Case Study: Clayco, Inc.



### Clayco Standardizes on Prolog Software to Improve Efficiency, Cost Control and Collaboration for Integrated Project Delivery Initiative

Clayco, Inc. is one of the nation's largest privately owned real estate, architecture and engineering, design/build and construction firms. With offices in Chicago, St. Louis and Detroit, Clayco provides turnkey services nationwide. Clayco services a variety of clients and industries via six core business units: Industrial, Corporate, Government, Residential, Institutional and Financial Facilities.

With 995 employees and annual revenues of \$880M, Clayco enjoys a national reputation for excellence that has been earned through significant achievements in safety management, fast-track schedules and technology and design innovation. The company has received a number of awards and recognitions for its projects, people and leadership. Clayco built one of two LEED® Platinum certified commercial buildings in Missouri, and was recently ranked #21 on the ENR Top 100 Design-Build Contractors list and #60 on the Top 400 Contractors list.

Clayco's commitment to process integration and efficient project delivery strategically positions them as a valuable partner during all project phases, especially when the project is delivered as an Integrated Project Delivery (IPD) venture.

For the past 13 years, Clayco has used Prolog® Manager by Meridian Systems to supplement their IPD initiative, primarily as a document management tool for Mission Control, the company's project document controls department. Team members working on various projects would submit drawings, submittals and other documents to Mission Control, where they would be logged and tracked in Prolog. But, since using Prolog wasn't a companywide mandate, plenty of project information never made it into Prolog. As a result, critical documentation was being stored across the company as Microsoft Word and Excel documents, and on individual computers and laptops.

"In the past, Prolog was available, but it wasn't being used universally across all project teams," explains Clayco's Chief Information Officer, Chris Walser. "Everyone had their own spreadsheets and ways of managing projects, which meant that project reporting wasn't always current."

**"I've had a long relationship with Meridian and have seen Prolog mature and improve over the years. It's a smart package – one that is ready to use, completely customizable and a product that solves many of the problems we were facing."**

*Michelle Schwarm  
Mission Control Director  
Clayco, Inc.*

## Evaluating Technology Needs

When Clayco's implementation of Oracle's JD Edwards accounting software took longer than anticipated, the delay sparked an urgency to find other ways to improve project controls. This drove the company to evaluate their project management technology and look for a solution that would:

- › Provide a single system of record with a centralized database for all project information
- › Standardize processes across the organization
- › Deliver better executive oversight
- › Automate workflow
- › Provide Web-based access to support a collaborative project team environment.

After evaluating Prolog and several other project management solutions, Clayco determined that Prolog was the best solution for their needs. The company's long history with Prolog meant less training for staff. And with Meridian's release of Prolog Converge, a Web-based application powered by Prolog, the company could achieve its goal of increased collaboration.

"Choosing Prolog Converge allowed us to take the software we already had and make adjustments to improve its effectiveness for our business," explains Clayco Project Manager, David Molamphy. "We've spent 13 years getting up-to-speed on Prolog, so keeping that in place and adding a complimentary Meridian solution made sense for us."

## Standardizing on Prolog

In September 2010, Clayco purchased Prolog Converge from Byrne Software Technologies, Inc., a Meridian Value Added Reseller (VAR) located in St. Louis, MO. Following a "Gap Analysis Study" performed by Byrne Software, Clayco hired the consulting and software development firm to help them standardize on Prolog as an enterprise-wide solution for project controls. In addition, Clayco purchased Byrne Software's Budget Forecast/Earned Value application, which consolidates accounting and project information to provide a flexible, executive-level dashboard that improves cost-related oversight and reduces project risk.

Byrne Software is also providing integration services to create a seamless interface between Prolog and Clayco's other software systems, including JD Edwards and the company's building information modeling (BIM) and estimating systems. "We're trying to have one source of record so that changes in one system dynamically update related systems to keep information consistent and current," Walser says.

## Immediate Benefits in the Office and the Field

By November 2010, Prolog Converge was live and the solution was being used on the first pilot project. Prolog Manager and Prolog Converge share a single database, so bringing additional projects onto the solution will be relatively simple because data migration isn't required.

Utilizing a Web-based application has already proven beneficial to employees in the field. But when Internet connectivity is a problem, Prolog Converge has a solution. "One of the most desirable capabilities of Prolog Converge is the ability for our project managers to download information onto a tablet or Apple iPad, work during the day and upload their changes later on," says Clayco's Mission Control Director, Michelle Schwarm. "A lot of our job sites have poor connectivity, and this eliminates the need for a superintendent to work in an office when he or she is more effective in the field."

Clayco's Prolog solution automates time-consuming paper-based and spreadsheet-based processes. A great example is the automatic e-mail notifications within Prolog Converge. In the past, project information had to be manually faxed, e-mailed or shipped to the various recipients. Now, a request-for-information (RFI) entered in Prolog Converge generates automatic e-mail notifications to all designated parties. These types of automated workflow enhancements reduce project delays and take a huge load off of Clayco's project controls personnel, and allow them to use their time in more productive ways.

Having a centralized database has also improved Clayco's efficiency when gathering information. "Rather than spending two or three days collecting different documents and combining information," explains Molamphy, "we can now query our Prolog data and have the results we need in minutes."

## Improving Cost Control

Improved cost tracking was a major motivation for the switch to Prolog Converge. Standardization on Prolog and the deployment of Prolog Converge, along with Byrne Software's budget forecasting application, allows Clayco to track costs in real-time. "The Prolog value-added solution developed by Byrne Software allows us to be much more precise in our forecasts," explains Molamphy, "and provides all the cost details we need in one location."

Prolog's custom reporting capabilities help Clayco increase the value of their client services. "Custom reporting provides a direct benefit to our clients," says Schwarm. "We're pretty savvy with our Prolog reporting and have added fields – especially for cost – that show our project owners exactly what they want to see."

## A Collaborative Team Environment

So far, 100 Clayco employees are using Prolog. As the software is rolled out on more projects, the number of users is sure to soar, especially as Prolog Converge is adopted as the project management standard. "In the near future, we'll be giving project owners, designers and subcontractors access to Prolog Converge, which will create a more collaborative team environment and help us stay as paperless as possible," says Schwarm.

Prolog Converge is available to authorized users 24 hours a day from any computer with an Internet connection, which allows subcontractors, suppliers and owners to access the information they need when it's convenient for them. This self-service ability improves customer service and eases Clayco's administrative burden by reducing the need to fulfill information requests.

## An Integrated Project Delivery Solution

Clayco expects to migrate all of their projects to Prolog by the end of 2011. In the meantime, they will continue working with Byrne Software to increase adoption of the software, develop additional custom reports and strengthen the integration between their various technology solutions. "When we embarked on this technology initiative, we knew we needed a strong consulting partner to back us up. Byrne Software has been that partner; they've been great," Schwarm states.

"To help us truly achieve an integrated project delivery solution," Walser adds, "Byrne Software has been critical to the integration of Prolog with our other software systems." These phased integrations will grow and evolve as Clayco's needs are redefined, new processes are developed and other software tools are added to the mix.

"I've had a long relationship with Meridian and have seen Prolog mature and improve over the years," Schwarm concludes. "It's a smart package – one that is ready to use, completely customizable and a product that solves many of the problems we were facing."

### Meridian Partner Profile

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# CLAYCO

THE ART & SCIENCE OF BUILDING

## Clayco, Inc. Project Profile

### Missouri Baptist Medical Center - West Pavilion Bed Tower Located in Town & Country, Missouri

Missouri Baptist Medical Center is a 489-bed acute-care hospital located at Highway 40 and I-270 in west St. Louis County. Recognized as a "Top 100 U.S. Hospital" by Thomson Reuters and "One of America's Safest Hospitals" by Forbes, Missouri Baptist offers a full continuum of medical and surgical services, and specializes in heart, cancer, gastrointestinal, orthopedic, neurological/spine and women's health services.

The 225,000-square-foot West Pavilion Bed Tower facility, which is being built as part of a long range campus plan, is a much-needed addition to the BJC facility at Missouri Baptist. Creating 96 additional private hospital rooms and the necessary shell space for future expansion, this project will increase the quality of patient care and allow Missouri Baptist to remain one of the top tier hospitals in the St. Louis area. In addition, a new 160,000-square-foot parking garage, which will park an additional 460 cars, will be constructed of structural steel and slab on deck construction.

#### Key Project Elements

- › Relocate helipad
- › New parking garage
- › Relocate Inner Campus Road
- › Increase campus electrical capacity and structure
- › New main lobby/entry and associated exterior landscape and pavement
- › New surgery/OR rooms
- › Pre/post renovation
- › 96 private hospital rooms with associated support space/services
- › Mechanical and support space as required
- › Connecting bridges/corridors to existing hospital

**Estimated Opening Date:** End of 2013

**Anticipated Results:** Once the new pavilion is complete, semi-private rooms in the existing tower will be converted into private rooms. Private patient rooms are now medically recommended to reduce infection, help protect patient privacy and allow patients to rest and recover more comfortably.



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