

Customer Case Study

H&M Engineering and Construction



H&M Engineering and Construction Uses Prolog® Software to Achieve Complete Document Control and Collect \$2M in Disputed Change Orders

H&M Engineering and Construction is an Australian steel fabrication and construction company based in Rutherford, New South Wales. Founded in 1997, the company provides turnkey design, materials acquisition, steel fabrication and site erection services to coal and mineral mining and power generation clients throughout Australia. H&M manages up to 50 projects each year and generates annual revenues of approximately AUD\$70M.

Since beginning operations in 1997, H&M has built a reputation for working closely with its clients to fully understand project objectives and deliver quality construction services on time and on budget. Using spreadsheets and word processing documents to manage jobs, however, was making it harder to provide clients with the level of service they had come to expect.

“As a growing business,” explains H&M Sales and Marketing Manager, Chris Frost, “we needed a program that would give us accountability when tracking project documentation and costs.” The company’s current tools weren’t providing the high-level document control it needed as project volumes increased. For example, there wasn’t a tracking system in place to determine when document changes had been made and by whom, or where documents such as requests for information (RFIs) were in the approval process. And, while document standards were outlined, parameters were open to interpretation by individual employees which created a mix of documents that strayed from the H&M brand.

H&M needed a solution that would provide document control capabilities and establish a standardized look and feel to all correspondence.

An Accidental Discovery Leads to Document Control Success

H&M initially approached three or four IT companies, but their programs didn’t meet the required needs. Then, almost by accident, H&M found a solution to its document control dilemma. “A company we were working with suggested that we look at the software they were using to control documents,” explains Frost. “They were using Prolog Manager from Meridian Systems, which we found very impressive.”

In June of 2006, H&M purchased Prolog through CadStation Solutions, a Meridian Global Reseller located in Queensland, Australia. When asked why H&M chose Prolog, Frost says, “More ‘bang for the buck’ is the best way to put it. Prolog’s document control capabilities were far in excess of what we’d ever imagined. Prolog had low upfront setup costs, and was the most user-friendly program we looked at. It wasn’t a hard decision.”

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Chris Frost

Sales & Marketing Manager

H&M Engineering and Construction

CadStation took the lead in H&M's implementation of Prolog, outlining the following initial deliverables for its system:

- › Track and manage all project documents, including revisions
- › Record project budgets and manage commitments on a job-by-job basis
- › Provide handover information when transferring projects from sales to the shop floor
- › Automate and track correspondence between vendors, subcontractors and clients
- › Proactively manage project milestones to ensure that target completion dates are met

After completing H&M's requirements analysis and configuring Prolog to those specifications, CadStation consultants went on-site and, over a two-day period, installed H&M's Prolog system (including the Australian language variations), activated user licenses and provided basic staff training. CadStation also implemented document templates to ensure that communications were uniform, which immediately provided the standardization that H&M was looking for in its correspondence. "First and foremost," says Frost, "Prolog makes the company look more professional because all of our documentation is sent out in the same format."

Realizing a Broad Range of Benefits

When H&M's initial Prolog objectives were met, the company was realizing big benefits. By having all project information in a single database, project visibility was front and center. "Prolog has given us a straightforward, transparent and traceable document control system," says Frost. "It's provides everything we need to manage a job."

Proof of Changes: Tracking changes to a job's original scope is one example. "We utilize the potential change orders feature to document additional work or variations made to the initial contract," says Frost. This has been especially helpful when field directives are issued at the job site. "Clients sometimes forget that they've authorized changes," Frost continues. "Prolog lets us document the change directives so we can provide proof of authorization at billing time if needed."

Increased Efficiency: Not only has Prolog allowed H&M to track project documentation more completely, but it handles the task with less staff. "We now have one person that controls all of the documentation that comes through for a project, instead of the six or 10 people we used to have doing the job," explains Frost. "Prolog makes document control very efficient and cost effective because information

is easier to find and access and we're not wasting time trying to manually track down information."

Reduced Risk: Risk reduction is another benefit that H&M has seen as a result of using Prolog. "On one project," recalls Frost, "we had claims for extension of time (EOT). The client didn't want to accommodate the EOT and insisted that they had provided information on time. We were able to print out the RFI report in Prolog that clearly showed a delayed response on their part. One quick report eliminated a potential problem and allowed us to progress on without hindrance – or additional cost."

Customer Relationships: Documenting project details such as change orders and RFI responses does more than just protect H&M from billing discrepancies. It also helps eliminate conflicts that could jeopardize customer relationships. "Prolog provides assurance that we won't get into any billing arguments or court battles," Frost says. "For me, that alone is return on investment (ROI)."

A Hard-Dollar ROI

But H&M has also seen a hard-dollar return on its Prolog investment. One of the first projects where Prolog demonstrated its capability to deliver bottom-line results for H&M was the Wilpinjong Coal mine project. H&M fabricated approximately 500 tons of structural steel on-site work for the project, and 1500 tons of erected steel work. The project was budgeted at AUD\$8M, but after factoring in change orders, the final project cost was AUD\$10M – a 25 percent increase from the original budget.

"The Wilpinjong project was a prime example of us utilizing Prolog for the final retrieval of money for work changes," explains Frost. "The client had basically forgotten about a number of changes that they had authorized, but we had every field directive documented. Prolog allowed us to quickly resolve the dispute to everyone's satisfaction and collect the additional AUD\$2M in charges. We probably could have validated changes without Prolog, but it wouldn't have been so easy."

Prolog: A 'Brilliant' Tool

The transparency provided by Prolog has given H&M a competitive advantage as it continues to grow and expand. "My position in the company is business development," explains Frost. "Part of developing our company is generating work, but another part is coming up with systems that make our business easier to run and allows us to take on more work. Prolog is one of those tools."

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In fact, H&M is currently using Prolog to manage approximately 15 active projects and another 60–100 project “tenders” or estimates. “While it was hard for me to initially convince the Board that we needed a tool like Prolog, once they saw what it could do, there was no hesitation in their approval,” Frost concludes. “When utilized properly, Prolog minimizes the risk to our business. It’s a brilliant tool.”

H&M Engineering and Construction Project Profile

Wilpinjong Coal Mine Located in New South Wales, Australia

The Wilpinjong Coal mine, which began operations in early 2007, is an open-cut mine that produces up to 13 million tons of coal each year and is expected to remain viable for an estimated 21 years. The coal extracted from the Wilpinjong mine is used for both domestic power generation and as an export, and makes a vital contribution to Australia’s important mining industry.

H&M was contracted to supply, manufacture and erect the structural steel elements for the Wilpinjong mine’s infrastructure.

Key Project Elements

- › Fabrication of approximately 500 tons of structural steel on-site work
- › Erection of approximately 1,500 tones of structural steel work

Final Project Cost: AUD\$10M

Start Date: August 2006

Completion Date: February 2007

Results: Although H&M’s original contract for the Wilpinjong Mine project was AUS\$8M, change orders brought the final cost to AUS\$10M. By using Prolog to document every field directive and change order, H&M was able to avoid disputes over the charges and easily validate – and collect – the additional AUS\$2M in charges.

