



M-Files Success Stories 2009

Information Management Tool Tracks Engineering Plans

Legally sealed papers create need for electronic versioning control



Normally, keeping track of the right file version saves engineers time, but in the case of legally sealed documents, good version control can also save some embarrassment. For any engineering firm, sealing the wrong version of a document can be a serious professional error, even exposing the company to legal action.

“Sealed engineering plans have to live in paper form. For legal purposes, the paper is stamped with physical seals. We provide these hard copies for our clients at the end of a project,” explains Rick Rambo, Computer Operations Manager of the Raleigh, NC-



based Booth & Associates. Booth’s 70 engineers, business consultants, and support staff serve a wide base of rural electric cooperatives and city municipalities across the country.



“If, later on, the client requests a change—say an addition of a new circuit—then we return to the digital version of the sealed file,” he continues. “In the past, before we had a document management

system, we might need to go through and open up multiple files of the same name to find the correct version of the document.”

Beyond Check-In/Check-Out

Booth & Associates had measures in place to ensure some version discipline for its collaboratively produced plans. The firm relied on a simple electronic file procedure called check-in/check-out. An employee would check out a file like a library book, save any changes, and then check the item back in.

The standard Windows folder system lacks this feature. Several employees could have the same document open -- and only the last one will have his changes saved. Check-in/check-out prevents this overwriting from happening.

“For a long time we used a simple system called RevisionMaster which was strictly for CAD files,” recalls Rambo. “It’s old -- I don’t know if they even make it anymore, but we were still using it after all these years because it gave us the basic check-in-and-check-out controls we needed. It got to a point where we wanted a file management tool that was more up-to-date and had more power -- a system that would maintain reliable version control on all of our files.”

An ancillary problem was that Booth’s digital assets – AutoCAD and MicroStation drawings, as well as general office documents -- were dispersed over several office servers and on individual PC workstations. Employees had to go search one location, and then another.

“We lacked a central repository for everything in the company,” Rambo explains.

Sifting through open-source and CAD-related file management alternatives

“We started to shop around for open source document management software. We looked at several open source electronic filing options, from regular CSV programs to SourceJammer,” says Rambo. “They were really designed for managing software development and the associated source code, not for a wide range of conventional CAD and Windows office programs.”

Booth & Associates also checked out document control solutions from Bentley, the developer of MicroStation, as well as accompanying offerings for company-wide project data management. “Bentley’s product was out of our budgetary scope and seemed more complex than we wanted. We did more looking and read reviews until we came across M-files.”

Discovering a straightforward file manager for all company data

Rambo ran across a content control software application called M-Files online and talked to one of the sales reps on the phone. Although the software is not open source – it’s developed by Motive Systems and sold like other popular software applications – it is an inexpensive and flexible platform that can handle any kind of document management need. Its simple approach to file tracking also gave Booth capabilities to customize through all kinds of Windows-based applications, even set up processes and workflows specific to Booth’s business rules.

“The functionality of M-files had exactly what we were looking for,” he says. “The file management software was easy to manage, ran seamlessly inside our Windows applications and Windows server environment, plus it had solid versioning control. The full package of features from M-Files is what sealed the deal.”

M-Files gave Booth engineers check-in and check-out capabilities on any file, whether it was from AutoCAD or MicroStation, or shared planning documents from common applications like Excel, Word, or PowerPoint. M-Files also gave the

consultancy something else: metadata. Precise database key terms identified every file inside a central file repository. Metadata avoided version confusion, enabled super-fast, comprehensive searches across an entire department, and brought in new management capabilities like document backup and history tracking.

“Version control was important to us. The metadata was a bonus,” says Rambo. “Now we have the flexibility of using the product in many different ways.”

Document control and accountability inside workflow

Along with the fast retrieval of CAD and project files also comes the knowledge of who used them last, when, and where. At Booth & Associates, this has created an new atmosphere of accountability for digital data.

“Overall, the employees really like M-Files. Engineers like the fact that now there is an ownership for the files, so when someone makes changes that version of the file would be tagged with their information. If something goes wrong, there is a paper trail that you can follow,” says Rambo. “That accountability -- along with version history – the ability to recover previous versions – is comforting to a lot of people.”

And locating the sealed document of an old project? “The seal date and other version comments are part of the M-Files workflow tags.”

Implementing a full-featured digital asset management software application and associated processes did more than just provide the security of formal check-in and check-out procedures; it’s given Booth & Associates a whole new way of handling their workflow.

About Booth & Associates

Booth & Associates, Inc. provides ongoing professional engineering and financial services to rural electric cooperatives, municipalities, and other utility clients throughout the United States. Booth’s staff of over 70 employees includes registered professional engineers, graduate business and accounting professionals, computer specialists, registered surveyors, and supporting personnel. Booth & Associates is headquartered in Raleigh, NC. For more information, please visit:

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