

ROI CASE STUDY

M-FILES DMS BOOTH & ASSOCIATES, LLC



THE BOTTOM LINE

Booth & Associates deployed M-Files DMS to improve its document storage and search capabilities to improve the efficiency of its engineering teams and to reduce redundant workflows. Nucleus found that using M-Files DMS enabled Booth to increase productivity by using the metadata tagging and search capabilities to create uniform and searchable document repositories that reduce the amount of time teams spent searching for relevant and current document versions.

ROI: **378%**

Payback: **4 months**

Average annual benefit: **\$119,019**

THE COMPANY

Booth & Associates, LLC was chartered in North Carolina in 1960 as a full service electrical engineering firm. Over the last 50 years Booth has worked directly with rural electric co-ops and municipalities to provide engineering services, rate studies, and negotiation services. The company offers start-to-finish project planning and design services for its clients, from property planning to substation and transmission line design. In the last ten years it has grown its client base to include larger utilities throughout the East Coast and the Midwest.

THE CHALLENGE

Booth has a team of over 40 engineers, designers, and technicians all working simultaneously on a wide range of projects for municipalities, utilities, and private clients. Prior to deploying M-Files, the company was using a very basic document library system with basic check-in and checkout functionality to manage the engineering schematics, designs, and documents associated with each project. The company's existing system did not provide the versioning and search capabilities engineering teams required to properly

track workflows and document accuracy, causing teams to spend time searching for current and updated versions and risk losing work in backdated versions.

"The largest benefit for us using M-Files has been the productivity and accuracy. Our jobs are on a fixed budget, so if we can get our work done in a more efficient manner, that increases our bottom line."

- Rick Rambo, Computer Operations Manager, Booth & Associates

The company needed a document management solution to manage its project schematics and documents throughout the lifecycle of a project, in some cases over a period of years, to ensure teams would always be working from the most current documents to increase productivity and accuracy while also reducing client liability.

THE STRATEGY

Booth evaluated several potential solutions before finally deciding to implement M-Files. The company found that other solutions were too complex to deploy and operate, and still lacked some fundamental functionality that it required. Other solutions also required a large investment in server infrastructure that was too high given the already high price for the software itself. Booth deployed M-Files in 2006. Booth's IT department also built a new primary and backup server to update its IT infrastructure. The deployment took approximately one month, and no outside consulting was utilized as part of the project. The engineers, designers, and technicians received four hours of training spread over several on-site lunch and learn sessions.

Types of Benefits



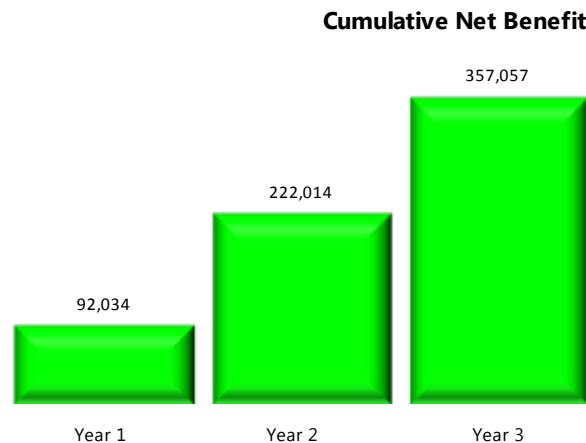
Booth's engineering teams now have a reliable and comprehensive document management tool to manage versioning and workflows that also utilizes M-Files metadata capabilities to provide fast and accurate document searches from a single storage repository. The consolidation increased productivity by ensuring that teams are always working from the most current documents.

KEY BENEFIT AREAS

Using M-Files Booth's teams have been able to more efficiently manage documents enabling them to stay on budget for time and resources for each project. This has been

critical for Booth's success managing costs for fixed budget projects. Key benefits of the project include:

- **Avoided hiring cost.** The ease of use for versioning and search allows the teams to more accurately manage their content from a single repository with access available across the enterprise. Booth would have had to hire one additional designer devoted to helping teams manage project documents to be able to keep up with the administration and organization of its growing project base.
- **Increased productivity.** The engineering teams no longer need to spend time researching each document for a project to ensure that it is the most current or correct version to be sent to clients. Engineers and designers save on average 20 minutes a day using the search and versioning capabilities to reduce redundant searches and prevent working in outdated documents. The technicians save on average 15 minutes a day. The increase in team productivity has helped Booth speed the design accuracy of its projects and reduce the overall time to completion.
- **Reduced risk of noncompliance.** Designing electrical systems for municipalities, co-ops, and large utilities Booth bears a high responsibility to keep its projects on time and within state and federal regulations. M-Files workflow capabilities ensure that any team member can move a project forward to clients without the need to rely on individual knowledge from a single team member that a project is complete and compliant.



KEY COST AREAS

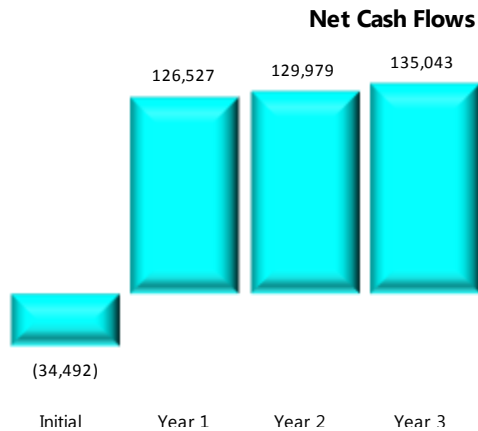
Project costs included the software licensing fees, cost to build internal primary and backup server, Booth IT personnel time, employee training time, and ongoing support costs. Three employees spent approximately 10 hours to prepare for and conduct four training sessions for employees. No outside consulting was engaged for this project.

Cost : Benefit Ratio | 1 : 10.1

BEST PRACTICES

The company’s engineers work on a broad range of projects that can span anywhere from a few months to several years. For the engineering teams at Booth, the key to keeping these projects on schedule from start-to-finish is making sure that everyone on a team has quick and easy access to engineering schematics and project plans from a single searchable repository. Broad team access to a uniform system prevents version overlaps that can cause confusion and potential loss of work, reducing rework and the accidental use of old document versions.

Booth did acknowledge that setting up a document management system for the entire firm, it did take some time to settle on a system configuration that was easy for everyone to use and also prevented data silos. Although it did not use outside consulting to assist the deployment, looking back they believe it would have been worth the upfront investment to get the system set up during the initial deployment rather than testing different configurations over time.



CALCULATING THE ROI

Nucleus calculated the costs of software licensing, server construction, ongoing maintenance costs, personnel, and ongoing support over a 3-year period to quantify Booth & Associates investment in its M-Files deployment.

Direct benefits quantified include the avoided cost of adding another designer devoted to administering document versioning and storage. Indirect benefits quantified included the

increased productivity of engineers, designers, and techs based on the time saved in the search and verification of documents. These productivity savings were quantified based on the average annual fully loaded cost of an employee using a correction factor to account for the inefficient transfer between time and additional time worked.

FINANCIAL ANALYSIS

M-Files

Annual ROI: 378%

Payback period: 0.3 years

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	57,408	59,800	62,296
Indirect	0	69,395	72,276	75,299
Total per period	0	126,803	132,076	137,595

CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	14,410	0	1,821	2,276
Hardware	4,400	0	0	0
Consulting	0	0	0	0
Personnel	9,949	276	276	276
Training	5,734	0	0	0
Other	0	0	0	0
Total per period	34,492	276	2,097	2,552

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
Net cash flow before taxes	(34,492)	126,527	129,979	135,043
Net cash flow after taxes	(18,971)	69,590	71,489	74,274
Annual ROI - direct and indirect benefits				378%
Annual ROI - direct benefits only				169%
Net Present Value (NPV)				169,137
Payback period				0.3 years
Average Annual Cost of Ownership				13,139
3-Year IRR				366%

FINANCIAL ASSUMPTIONS

All government taxes	45%
Cost of capital	7.0%



By the Numbers

Booth & Associates, LLC's use of M-Files DMS



Annual Return
on Investment **378%**

4 months
The total time to value, or
payback period, for the project

Cost : Benefit
Ratio **1 : 10.1**

\$119,019
Average annual benefit

THE PROJECT

Booth & Associates deployed M-Files DMS to improve its document storage and search capabilities for its engineering teams. Nucleus found that using M-Files DMS enabled Booth to increase productivity by using the metadata tagging to create uniform and searchable document repositories that reduce time spent searching document versions.

THE RESULTS

Avoided additional staff
Increased productivity

Number of users: **64**

1 Months
Total time for the company to
deploy M-Files

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- Rick Rambo, Computer Operations Manager, Booth & Associates