

Client: BSA LifeStructures

Industry: Architecture, Engineering, Construction (AEC)

Replacement Windows?

BSA LifeStructures finds a way to manage all its documents better than traditional Windows network folders--without changing how architects and designers work

In any kind of design firm, documents are not only the final deliverable but also the currency of a project's workflow. Keeping track of changes can be a challenging prospect even among a few designers, but as a company grows, a *laissez-faire* method of managing files very soon proves problematic.



That was the case with BSA LifeStructures. The Indianapolis AEC (Architecture Engineering & Construction) group is not just any kind of design firm, but more like an every-kind-of-design firm. Its core specialty remains facility designs that fit all the complexities of healthcare, education, and scientific research activities, while its affiliated companies include transportation consultation and management, interior design, reprographics, and technological planning. With all these diverse operations, BSA LifeStructures can no longer be considered small. Including its office in Chicago, the firm now employs a total staff of 325.

CIO Brett Bonenberger has witnessed the changing IT needs of the growing business. "In the past, we really did not have a system in place to manage files. For the most part, we just used standard Windows folders," he explains. "When you are smaller, document management doesn't seem to matter too much. You rely on face-to-face interactions. Most people are able to go to an individual and ask the location of the information. As we have gotten bigger and responsibilities have been spread out a bit more, we may not always have that close communication, especially as people take vacations or change assignments. If the communication or consistency is not there, we're liable to stumble over ourselves."

Consistency is the major problem with saving files in the regular Windows hierarchy of folders and subfolders. In the standard scheme, trees of folders can be freely created with whatever logic might seem convenient at the moment. Over the course of a project, this create-as-you-go method can generate redundant file versions and confusion about where files are located.

"Employees would make edits and save work as new names or in new subfolders, so our project file structures got a little convoluted," Bonenberger recalls. "It made it very difficult if someone was looking

for something and they didn't know exactly where to look. There was no way for them to find the information."

Overall, folder structures in Windows were creating more and more setbacks as the number of projects and employees grew. "We had a multitude of issues that were gradually arising as a result of people dragging and dropping files into folders, accidentally deleting things, and basically losing information," adds Bonenberger.

Bonenberger's IT team had no shortage of options on the market for electronic document management systems (EDMS) that might address these common problems. Through its long research into company-wide digital filing solutions a few years ago, they found that not all of them were created equal.

"We actually began to implement one system, but it was too difficult for the user," he says. The IT team found surprising resistance among the design staff. "With the previous system we tried, users were forced to log in to the product to find what they were looking for. Once they got in and initiated searches, the results were there, but there were some things missing in the process. Users had to go too far out of their way to access the repository.

"During that time frame, we discovered M-Files in a magazine ad. We played with the free download version and could not believe what we were finding," says Bonenberger. "We investigated the software some more, and soon we made a decision to go ahead and pursue M-Files and begin migration from the older system."

The simplicity of M-Files

M-Files, developed by Motive Systems (www.m-files.com), offered a simple solution to maintain file organization that followed the familiar steps of opening and saving files that BSA employees used already. Once installed, M-Files appears throughout the standard Windows interface – the Windows Explorer window, or within Open/Save dialogue boxes within each office application.



Rather than storing files in folder structures, M-Files saves all the organization's documents in one repository, or vault. When saving, users fill in certain keywords, or metadata, about the document instead of a file location or naming convention. IT staff or project managers can easily set up the required fields for certain document types. For example, each project is assigned a standard set of keywords needed when saving, and rules for access permissions.

Similarly, these same keyword descriptors are used in M-Files queries to quickly retrieve documents from the vault, bypassing the need to click a path through a chain of folders altogether. Other M-Files

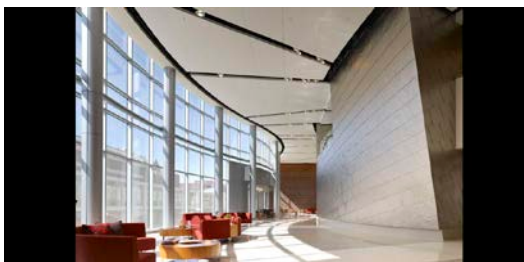
"We had a multitude of issues that were gradually arising as a result of people dragging and dropping files into folders, accidentally deleting things, and basically losing information."

*CIO Brett Bonenberger
BSA LifeStructures*

controls, features like user permissions and check-in/check-out capabilities, protect information from accidental deletion, unintended editing, or misappropriation.

“That was the selling point -- the minimal user interface,” says Bonenberger. “It kept it simple for the employees. It didn’t change their workflow much at all.”

For employees in the habit of creating their own folders and subfolders, M-Files offers a custom view capability that mimics the same hierarchical structure of Windows Explorer. The interface experience is virtually the same; the difference is that the actual location of the file is not dictated by the structure, but by the organizing database attributes. Bonenberger says employees picked up on the M-Files custom views almost immediately. Unlike the custom options in the previous document management solution, M-Files views won quick popularity among the BSA design staff.



You can find more information on BSA projects on the Web site www.bsalifestructures.com.

“With M-Files, there were not any hoops to jump through. There were no programming changes or custom applications to be created,” says Bonenberger. “Once our staff saw their documents in M-Files, it just clicked. We are seeing people creating their own views to find files quickly beyond the default views we set up for each project.”

Managing AutoCAD documents in M-Files

One of the common denominators of all the design work at BSA LifeStructures is CAD. Design documents are predominantly produced in AutoCAD, the most common software in architectural studios and design firms.

Many CAD vendors today offer a peripheral document management system to handle project information. Autodesk’s product is called Vault (here with a capital V). Bonenberger says his team did consider Vault as a solution, but ultimately decided “it was not everything that we were looking for.”

In contrast to Autodesk Vault, M-Files is a comprehensive company-wide solution, as applicable for accounting or clerical documents as it is for AutoCAD’s DWG files. CAD-vendor-produced files systems, called alternatively product data management (PDM) or product lifecycle management (PLM) systems, tend to orbit tightly around the original CAD product in an effort to sell more seats of software. Vault, for instance, offers file management for full-fledged AutoCAD subscribers, but will not operate for users of AutoCAD LT, the cheaper, lightweight version, on which many small firms rely to stretch their CAD budget and include support staff. By contrast, M-Files, which integrates into every Windows application that saves documents, has no built-in limitations.

“That is what is nice about M-Files,” says Bonenberger. “Designers can execute a search within the vault or from within AutoCAD for the project file they need. They do not have to get out of CAD or minimize CAD; they can do it all just as if they were on a shared network drive. That is a huge selling point for the

designers. It goes back to the issue of being non-intrusive for the user, and not forcing them to change their habits.”

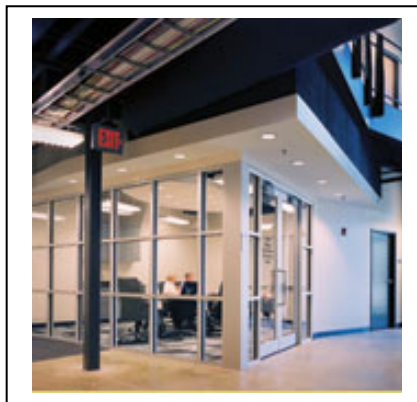
A clearer picture of projects across offices

M-Files was introduced throughout the main office in Indianapolis at the start of 2009, after a thorough period of testing and experimenting by Bonenberger’s IT staff. M-Files Express is a free downloadable version that allows firms like BSA LifeStructures to experience the ease of operation before making a larger commitment. Converting the whole office to the M-Files repository was not technically difficult.

“Implementation was quite simple,” he says. A couple of IT technicians got the system-wide M-Files implementation up and running, and spent about an hour training each employee the new features.

“We did have someone from the M-Files team spend a week with us helping us to do more detailed implementation, integrating it into our financial and accounting systems using project ID numbers, so we can create a new project within our accounting system at the same time. There is a simple checkbox that says ‘add to M-Files’ which attaches the project ID number, client contact information and so forth to all future documents associated with the project. Overall, M-Files has been one of the easiest systems to implement.”

After its initial success in Indianapolis, the IT staff is already teaching their Chicago branch to operate on the same M-Files repository. Even though Indianapolis and Chicago staff don’t get much face time, they are now enjoying the benefits of a clearly defined workflow.



“Even though there are only a few hundred miles between us, you would think at times we were halfway across the world, because the communication was just not there. Now that we are working on the same network and repository with our Chicago office through M-Files, we’re able open up the M-Files interface and view who’s done what and work with a consistent set of processes across both offices. Now we are seeing a lot more communication between our offices and quite a bit more collaboration occurring as a result.”

About BSA LifeStructures

BSA LifeStructures specializes in architecture, engineering, interior design and planning for healthcare, higher education and scientific research. For examples of past projects and more information, please visit: www.bsalifestructures.com.

Find out more about M-Files for your office at www.m-files.com.