Forward-Thinking IBM i Development Manager Discovers Database Modernization Is Key to Both Enhancing the Capabilities of His Company's ERP Solution and Attracting Young Programmers

As MIS director for American Biltrite, a major manufacturer and distributor of industrial rubber and flooring products, it is imperative that Bernard Côté is constantly anticipating the IT and software development needs of his company—both near- and long-term. As Bernard looked ahead, some of his biggest concerns were centered around two things: Firstly, he and many in his IBM i development team were starting to get close to retirement age and he needed to bring on younger developers.

Secondly, the company's custom-developed ERP application, although doing its job well, was built on traditional RPG and DB2 protocols. This not only constrained the capabilities and maintenance of these applications, but it made it harder to attract developers who were educated in modern programming languages and SQL databases. Both of these concerns got Bernard looking at ways to modernize his team's software development tools and databases so as to attract new programmers and pave the way for enhanced capabilities.

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"If you want to bring young developers into an IBM i shop, you need to talk SQL and you need to be using programming languages that are similar to what's being taught in school," says Bernard. "We have been using Freeform RPG for a while, which is similar to other languages that are being taught, but our DB2 databases were still in older, monolithic DDS formats. It was time to start looking at ways to gradually modernize these databases to DB2 SQL."

Bernard had also been seeing for many years the IBM i platform moving in the direction of DB2 SQL, so that was yet another motivation to modernize.

"IBM is putting a lot of efforts into DB2 SQL technology," says Bernard. "It's important that we start to go in the same direction as IBM or we will not benefit from their significant investments. I can see the advantages that SQL provides as it allows development shops like ours to take a lot of the business logic that is within programs and move it into the database. This will provide us with all kinds of capabilities down the road. We're always looking for methods that will improve efficiency and functionality, and it's clear to me that database modernization provides it."

Bernard knew that it was going to be a major effort to convert the databases of his company's extensive ERP application to SQL, but he had to start somewhere.

It was around this time that he heard of TEMBO and its AO Foundation application that is able to help IT shops like Bernard's transition their applications step by step toward a fully modernized, DB2 SQL database.

TEMBO's AO Foundation modernizes legacy databases to the powerful SQL (SQE) engine while facilitating the implementation of a data-centric architecture, preserving and extending legacy applications, and providing a solid foundation for future modernization technologies and projects. AO Foundation achieves this without loss of business continuity using a low-risk, gradual, modernize-as-you-maintain process.

"There has been so much consolidation of independent software vendors in the IBM i space over the years that I was reluctant to work with one of the bigger vendors of database modernization technology," says Bernard. "Whenever possible, I prefer to deal with smaller vendors, so I began my search that way and came across AO Foundation. When I spoke with the people at TEMBO and looked closely at their technology, I was impressed. I could tell that they really knew what they were talking about, and the company has built a well-thought-out framework and set of tools for helping companies modernize their databases."

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In addition to his desire to work with a smaller, more approachable vendor, it was also important to Bernard that his company wouldn't be reliant on some kind of proprietary technology once the modernization project was completed.

"During my career, I have purchased some software development tools in which I became stuck having to continue to use these in order to maintain a specific kind of functionality, and I really don't like that," says Bernard. "So it was important that, whatever I chose for database modernization, I wouldn't be beholden to that tool in order to keep my database modernized. It was clear that AO Foundation was designed to help me implement my modernization project, but once that was completed, I could move forward without it."

After due consideration, Bernard made the decision to choose AO Foundation, and he and his team began the process of gradually modernizing his legacy databases.

It's a big job that is still very much ongoing; after all, his company's IBM i applications utilize over 1,500 physical files.

"We've recently had some huge development projects come along that required a lot of resources, so this has slowed down our modernization efforts a bit, but whenever we touch a file we convert it to SQL using AO Foundation," says Bernard. "Even though we'd like to be making more progress with our database modernization efforts, we're already enjoying numerous benefits, such as improved business intelligence, the ability to utilize SQL inside of new RPG coding, and the standardization of data elements across our databases. Regarding the latter, as different developers worked on different development projects over time, there have been differences in how certain fields have been defined in various data files. AO Foundation is helping us clean up our database by standardizing data elements, which is helping a lot."

"Another direct benefit is that I can hire young people who are right out of school, and they can immediately be productive members of the team," continues Bernard. "I brought on a young programmer recently and I'm giving him SQL-related projects, which he is able to do with ease. And whenever I get stuck with something related to SQL, I just ask him and he is able to solve the issue for me. When it comes to SQL, he's really good—much better than I am."

"It's impressive to see the careful, methodical way that Bernard and his developers are going about implementing their database modernization efforts," says Neil Woodhams, president of Databorough Services, a TEMBO partner. "There are so many IT and business benefits that can be realized from a well-groomed database. A lot of IT managers just go straight to improving the user interface, which may satisfy their boss, but it doesn't do much to improve the underlying function and efficiency of the application. Bernard and his team are putting in the necessary work at the database level, and once that's completed there will be a significant payoff for him, his development team, and the company."

As he began to outline his database modernization project, Bernard knew he had a lot to learn and is impressed with the way the people at TEMBO make themselves available to him and his team by providing hands-on training sessions, sharing knowledge of best practices, and offering an extensive library of resources that can be accessed anytime.
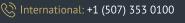
"It is clear that the people from TEMBO are dedicated and knowledgeable, and they are great teachers," says Bernard. "They all come from programming backgrounds and know full well the challenges we deal with. They recorded all of our training sessions, and I can share those videos with our new and existing programmers. They are always eager to share their knowledge; plus, I can go to their website and download extensive guides and tons of program templates that are all open source. They have no hesitation of opening up their vast how-to knowledge to the public. I have never seen anything like that from the bigger software vendors."
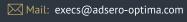
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It has now been over two years that the American Biltrite development team has been using AO Foundation and enjoying the benefits of database modernization. Recently, Bernard made the decision to renew the AO Foundation maintenance agreement for an additional three years, further demonstrating his enthusiasm for the product and the company's commitment to continuing its database modernization project.

"TEMBO's support is top notch," emphasizes Bernard. "They are extremely responsive to my questions and, considering we are in very different time zones, they get back to me quickly. In addition, they are constantly enhancing AO Foundation with regular updates to the software, which is an indicator of their commitment to the product and to their customers. We are excited to continue our relationship with TEMBO and in turn further reap the benefits from our database modernization efforts."

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