

Wire cars, like the one pictured below, helped inspire Procuero Systems' recent modernization effort, according to Managing Director Heinrich Smit.

UP CLOSE

CUSTOMER: Procuero Systems

HEADQUARTERS: Pretoria, South Africa

BUSINESS: Hosted solution provider for the South African insurance industry

CHALLENGE: Modernize its custom software offerings

SOLUTION: Using TEMBO Technology's Adsero Optima [AO] Foundation to improve its database back end and several tools from looksoftware to create an application graphical front end

HARDWARE: An IBM Power Systems server running IBM i

SOFTWARE: TEMBO Technology's Adsero Optima [AO] Foundation and looksoftware's newlook and lookserver

WARRIOR

FOR THE FUTURE

Procuco modernizes its systems from back to front

BY JIM UTSLER ♦ PHOTOGRAPHY BY ALBIE BREDEHANN

When considering application modernization efforts, many companies simply look at their green-screen interfaces and ask, “How can we put a pretty face on that?” It’s an appropriate question, especially given users’ increasing expectations about how they interact with computers.

But applying point-and-click access to legacy software is only part of the modernization equation. Other factors, including crucial back-end systems such as databases, also must be taken into account—to speed up critical services and meet the demands of a changing world that includes, for example, mobile-app platforms.

Procuco Systems, an insurance-solution provider in South Africa, has considered many of these modernization aspects. Rather than simply migrating from a 5250-based interface to something more visually appealing, it decided to dig deeper and update its underlying database structure—with the assistance of TEMBO Technologies.

The result is several vital improvements for the company and its clients. As Heinrich Smit, managing director with Procuco, explains, “We looked at everything as a whole, including not

just the front end, but also the business logic. By doing so, we ended up with a solution that provided for easier maintenance, more flexibility and increased agility. We also looked out into the future, realizing that many of our clients are moving to mobile platforms, and made it simpler for us to meet their ever-changing requirements.”

LOWER PRICES

Procuco’s legacy of core insurance-industry offerings reaches back more than 10 years. In that time, the company has invested heavily in development and doesn’t want that legacy to languish, especially given the competitive nature of its industry.

That’s in large part why the company was established. Instead of organizations in the short-term insurance market in South Africa developing their own applications, they can turn to Procuco for customized solutions at prices that are lower than market averages, according to Smit.

This short-term market doesn’t cover products such as life or medical insurance. Rather, it focuses on more tangible items, such as homes, home contents and motor vehicles. Within

this space, Procuco’s clients include insurance suppliers; underwriting outsource managers; financial advisory service providers, such as insurance brokers; credit assist insurance suppliers; and niche insurance providers, including those that offer, for example, only motorcycle coverage.

Procuco’s business model is somewhat unique. Rather than sell a shrink-wrapped package, the company offers what Smit says closely resembles a hiring agreement. “We offer the system and take a percentage of the gross premium,” he explains. “This is on a month-by-month basis, and our customers get access to our customized applications and IBM Power Systems* hardware hosting, including system and data maintenance—all of which is included in our fee.”

Because it has to customize its applications, the company is always looking for ways to innovate and maintain client satisfaction. To that end, it’s leveraging its core legacy application components to continue offering what its users expect and then pushing the boundaries to offer additional functionality to fit with changing business models. This also applies

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to its marketing efforts as it actively pursues new customers. Therein lies the motivation behind Procuco's database modernization effort, dubbed Project Draadkar or "wire car."

"Some of the local boys in South Africa make money selling these cars, creating, for example, a Land Rover or a Jeep out of wire," Smit explains. "We thought about that and said, 'We can apply this to what we're doing and turn

our systems into Ferraris or Lamborghinis.' It's not a perfect metaphor for what we're doing, but it kind of stuck, and now everyone in the company is talking about it."

THE STARTING POINT

Before building Draadkar's back-end database, the company decided to work on the front end. This came in the form of a GUI developed using several tools,

including newlook and lookserver from looksoftware. The goal behind this was to begin modernizing the look and feel of its solutions, which would appeal to both current and, perhaps more important, potential clients.

"Green screens are great for high-volume transactional environments. You don't have to take your hands off the keyboard, find your mouse and then click on what you want to do," Smit says. "But from a marketing point of view, new prospects expect a graphical interface, associating green screens with systems that are old and out of date. So that's why we started with the front end."

The decision to go with newlook was driven by several factors. For one, newlook makes it relatively simple for users to transform green-screen interfaces into more eye-pleasing GUIs. Second, lookserver lets users deliver existing code, including RPG Open Access, to mobile devices with few or no changes required on the back end—and mobile access is something Procuco wants to offer its customers as they increasingly adopt that emerging computing model. Third, and significantly for Procuco, looksoftware has a working arrangement with TEMBO, which is supporting newlook as its preferred interface model.

This was key, because Procuco was simultaneously drafting its Project Draadkar requirements, already knowing that TEMBO would be doing much of the heavy lifting in this regard. To have two closely aligned companies working together on the same project was a blessing to Procuco, which wanted few operational interruptions.

"We cannot afford to be offline at any point, except for maybe Christmas and New Year's Day, which is a drawback to some modernization efforts. We don't have dual systems and we're in a live environment, so everything has to be nondisruptive," Smit says. And that was indeed the case, as Smit further explains: "After the conversion of the entire database, our users were not at all aware of any changes happening on the insurance solution. It was truly nondisruptive."

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—Heinrich Smit, managing director with Procuco Systems

SOONER RATHER THAN LATER

Procuero's database-conversion effort entailed using TEMBO's database modernization tool Adsero Optima (AO) Foundation to largely automate the movement of application-database interfaces from the applications to the database itself, with no application recompiling needed. This might sound like a no-brainer, but many programmers—who may have been raised on traditional RPG coding—don't think in that way. As a result, they instead code triggers, referential constraints and database validations as part of the application-development process. This leads to a tangled web of application-specific database interfaces that may have to be changed every time an application is modified. Coders often become rightly frustrated with this.

The situation can be avoided by moving the application-database

interface to the database, using the IBM-provided SQL engine. This means the triggers, constraints and validations can be separated from the business logic, giving programmers a way to sidestep the in-application coding of these interface functions. As a result, changes to applications don't require modifications to the interfaces, sparing programmers many maintenance nightmares while also creating greater application agility.

"We had to ask ourselves what our modernization objectives were—just putting a new face on an old application, or actually modernizing it to keep up with changing times and requirements. Not only that," Smit continues, "but we had to consider the burden we were putting on both our existing and new programmers. As things were, only a few programmers understood the intrinsic nature of our applications—

and they didn't really like talking about it. So we had to take a different approach by employing the ubiquitous SQL so everyone could understand everything we were doing."

This may sound like technical gobbledegook, but from a business perspective, it simply made sense. Not only did Procuero relieve its programmers from niggling maintenance burdens, but it also created a more modern system model. This has enabled the company to offer its customers refreshed solutions and move elegantly into the future.

"We didn't want to focus simply on maintenance. We wanted to ready ourselves for emerging technologies such as cloud computing, which we decided we had better do sooner rather than later. By modernizing everything—and taking a holistic approach to it—our programmers can be much more productive and proactive," Smit says.

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NEW OPPORTUNITIES

The results speak for themselves. According to Smit, this move has allowed the company to extend the life of its existing solutions by at least seven years. Given the investment it already had in its systems, this was a significant achievement. The company

wouldn’t have to rewrite its applications—and thus the application hooks into the database—to move forward or extensively retrain new programmers on its existing systems. Additionally, this modernization effort, including the lookserver application makeover and the AO Foundation database conver-

sion, has resulted in increased hiring agreements and premiums.

“We were able to increase our percentage of monthly premiums by 6.5 percent,” Smit says. “This included not only increased fees for the graphical version of our solutions, but also the addition of new clients. Without this massive undertaking, we wouldn’t have accomplished this—and we’d be looking backward instead of forward. Now we can offer traditional green-screen application access, graphical access, mobile access and cloud access. Our overall modernization effort—including Project Draadkar—has created a bounty of new opportunities for us.” 



Jim Utsler, *IBM Systems Magazine* senior writer, has been covering technology for nearly 20 years.