At Canary Labs, it’s all about the process. The Canary Labs Enterprise Historian solution is a market-leading data-historian technology that captures, processes, and analyzes—or “historizes”—time-based process data. The Martinsburg, Pennsylvania-based company was established in 1985, and has since delivered award-winning historian software solutions to more than 16,000 installations in over 26 countries around the world.

Canary Labs has always placed a priority on innovation, and the company continues to deliver new features and technologies to its users. And those customers value what they can accomplish with Canary Labs analytical and reporting solutions.

But a few years ago, Canary Labs saw a potential obstacle: With great analytical data power comes great performance responsibility, and stakeholders knew their existing ODBC connectivity driver could not support ambitious plans for growth. At the time, they were licensing an older ODBC driver from another company.

“We had begun to see a lot of customers wanting to use our data on their backend systems,” notes Stan Kennedy, Project Manager at Canary Labs. “And so that’s what brought into focus the need for an [improved] ODBC driver, and exposed the weakness of the previous driver we had.”

Canary Labs' Kennedy and Senior Software Engineers Ken Wyant and Mark Rice identified key criteria for a new ODBC driver: It had to be flexible, fast, and up to date with the latest complementary technologies. And that led them to Simba.

“We do not hesitate to sell [our SimbaEngine- built] ODBC driver. It's an essential part of our toolkit.”

—Stan Kennedy, Canary Labs Project Manager
The Solution: Speedy, Scalable ODBC Connectivity for the Canary Labs Platform

"[Our ODBC solution] had to be custom," says Wyant, "because of the nature of the way we store data in our Historian [product]." Wyant and team saw gaps: The old solution didn’t provide hooks for performance optimization, couldn’t handle complex queries, and perhaps most glaringly, didn’t support up-to-date versions of SQL: "Widely-accepted commands and functions were not available to us."

The Canary Labs team researched available driver-development environments, and learned of the Simba Technologies SimbaEngine SDK. Stakeholders evaluated a trial version, and recognized it would enable them to build a custom ODBC driver that could satisfy their customers’ needs for scalability, performance, and complex-query support. Wyant and Rice got to work.

In a few short weeks, Canary Labs had completed a full-fledged driver. But the process wasn’t over. The dev team worked to tailor optimizations to enhance query performance for its Historian product. With collaboration from a Simba Technologies senior engineer, Canary Labs got the driver ready for its first customer.

The customer was eager to get started. "They put [the custom SimbaEngine-built ODBC driver] through the ringer," says Wyant. That successful—and thorough—effort included attaching the custom ODBC driver to SQL Server and other third-party tools, and then binding it to some custom .NET code.

After just six weeks of development and implementation, the customer was satisfied with performance testing. So was Canary Labs. After the successful road test, the team promptly made the custom driver available for release with its Historian product.

Throughout both its evaluation, driver-development, and customer-implementation cycle, Canary Labs cited Simba’s technical expertise and committed engagement as key success factors in the Canary Labs custom ODBC driver effort. Notes Wyant, "Engineers appreciate talking to other engineers. And that’s one thing that set [Simba Technologies] apart."

Concludes Kennedy, "We do not hesitate to sell [our SimbaEngine-built] ODBC driver. It’s an essential part of our toolkit."

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**Requirements:**
- ODBC Connectivity
- Faster Performance
- Optimization Hooks
- Support for Latest SQL
- Custom .NET Bridge
- Support for Both 32- and 64-bit Environments

**Solution Components:**
- SimbaEngine® SDK
- Both Server- and Client-side SQL Engine