



Leadscope Powers Data Mining Application with PointBase

Leadscope, Inc., is a leading developer of decision support applications used by pharmaceutical companies to identify potential new drug compounds. Founded in 1997 and headquartered in Columbus, Ohio, Leadscope provides powerful data mining tools, including Leadscope Enterprise™ and Personal™ Leadscope, to help life scientists analyze and correlate large quantities of chemical information.

Drug discovery and development is a long process that can take up to 14 years and includes research, testing, clinical trials and final government approvals. Technologies such as the ones Leadscope provides can speed the process of identifying potentially useful compounds resulting in the savings of millions of dollars. However, to achieve this goal, these applications must be able to access, manipulate and store large quantities of chemical information in a database.

For its first product, Leadscope relied on a file-based approach for its applications. It followed this with an Enterprise solution based on the pharmaceutical industry standard Oracle® for its enterprise product. More recently, the company has utilized PointBase Embedded, a platform-independent relational database, in its applications. Delivering Java-based portability, a small footprint, comprehensive security and zero administration, PointBase Embedded offers Leadscope a cost-effective, easy-to-use database for a wide range of data mining activities on the desktop PC.

“PointBase has greatly enhanced and accelerated our development and deployment processes.”

- Michael Crump, Software Architect, Leadscope

Meeting the Challenges of Leadscope’s Drug Discovery Environment

A key requirement for Leadscope was to maintain the existing data model and the database interfaces across its product lines. To do so, the embedded database had to be JDBC-compliant, have BLOB capabilities and be able to store gigabytes of information. Additionally, the company was seeking greater database transparency for its developers and end users.

“For standalone and client applications, we needed a product that would be completely seamless in its deployment and operation,” said Michael Crump, software architect at Leadscope. “We were also looking for a more cost-effective solution that required no database administration during either development or installation.”

"I am able to transition between databases and create self-contained testing environments for our applications that will run against PointBase and Oracle—tests that used to take two-and-a-half hours to set up now take only four minutes," Crump concluded. "Now I always test against PointBase first because it is so much faster and easier. PointBase has made us much more productive."

Leadscope compared several leading embedded databases, looking for one that would remain fully accessible to Oracle chemical information stores. "We tried a number of embedded products, but PointBase was the one that met our needs," Crump said. "It was Java-based, easy to use, and offered great technical support. And with PointBase, we don't have to do any customer installations!"

PointBase Embedded helps Leadscope meet a number of major business objectives, including:

- Controlling costs with a more streamlined database configuration
- Providing an easy-to-deploy, transparent database
- Supporting a variety of data storage uses for greater product effectiveness
- Leveraging a Java database that is portable across platforms

Increased Productivity in the Development Environment

Today, Leadscope releases its applications with PointBase Embedded and Oracle, the two databases existing side-by-side. This allows researchers to carry out personal analysis and discovery on the desktop while retaining access to large-scale enterprise databases. "This has worked out really well for us," Crump said. "Our application can talk to either database as needed."

PointBase Embedded also supports a variety of database usages. It holds all application-specific metadata, stores proprietary application data used to analyze chemical information and acts as a local data store for individual research results. This eases the development process as well as making information more available to customers. With Leadscope, scientists can now perform their research anywhere, at any time.

Key Benefits to Leadscope:

- Shorter, more productive development cycle based on zero administration
- More cost-effective customer deployment that requires no database administration
- Trouble-free coexistence with Oracle database
- Supports metadata, end user data, prototypes and samples

Leadscope Products Using PointBase:

- Leadscope Enterprise
- Leadscope Professional
- Personal Leadscope



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