

## **New eXtremeDB® Financial Edition Version 6.0 Ramps Up Database System's Speed, Scalability and Development Simplicity**

### **FOR IMMEDIATE RELEASE**

*Access to Vector-Based Functions via SQL and Python Boosts Programming Speed and Productivity. Distributed Query Processing and RLE Compression Tackle Big Data in Capital Markets Analytics*

FEDERAL WAY, WA — Oct 27, 2014 — McObject® announced it has released eXtremeDB® Financial Edition version 6.0, a major upgrade of its database system for capital markets applications such as algorithmic trading and risk management. Improvements include access to eXtremeDB® Financial Edition's most powerful capabilities from the widely-used SQL and Python languages, unleashing productivity by simplifying development and, as a result, reducing costs and slashing time-to-deployment. Version 6.0 also tackles the challenge of Big Data in financial systems with new features including distributed query processing and specialized market data compression, to streamline handling of real-time and historical databases that today grow beyond one trillion records.

"In STAC-M3 benchmarks and other tests, eXtremeDB® Financial Edition has shown it can deliver the lowest latency in processing market data. Version 6.0 builds on this core strength, with some improvements accelerating performance, others increasing cost-effectiveness, and several new features doing both. Major companies in capital markets are already leveraging the improvements in eXtremeDB® Financial Edition 6.0. McObject looks forward to helping additional customers tackle their toughest financial computing challenges as the upgrade goes into general release," said Steve Graves, McObject co-founder and CEO.

McObject will be presenting performance results using eXtremeDB® Financial Edition 6.0 at 2014 [STAC Summit](#) conferences in London (October 30), Chicago (November 4) and New York (November 13).

Graves provided details on the improvements in eXtremeDB® Financial Edition 6.0 as follows:

#### **Vector-based statistical functions in SQL, Python.**

A defining feature of eXtremeDB® Financial Edition is its library of vector-based statistical functions, which are pipelined in CPU cache to minimize latency when analyzing market data. In version 6.0, the product introduces the ability to use its vector-based functions from within SQL, a database language that is nearly universal in enterprise computing. This vastly increases the pool of developers whose existing skills permit quick adoption of McObject's database system.

SQL can be used in applications written in languages including C/C++, Python, Java and C# (.NET) and also on its own, via a command-line interface. Its high level of productivity for creating code that interacts with database systems enables faster development in a field where timing can be a key competitive advantage. McObject's [video](#) gives a practical example of using vector-based functions from within SQL.

*eXtremeDB*® Financial Edition 6.0 also adds support for Python, a high-level language favored in capital markets because of its fast time-to-deployment, particularly for tasks such as rapid prototyping. Using Python alongside *eXtremeDB*® Financial Edition's dynamic database definition language (DDL) capability, developers can implement their ideas quickly, and optimize rapidly by testing changes to code, database tables and indexes.

### **Distributed query processing.**

With this new capability, *eXtremeDB*® Financial Edition partitions a database and distributes query processing across multiple servers, CPUs and/or CPU cores. Performance is accelerated – dramatically, in some cases – via parallel execution of database operations and by harnessing the capabilities of many host computers rather than just one.

### **Market data compression.**

The upgrade adds a powerful new compression algorithm for reducing the size of stored market data, to reduce storage costs and accelerate processing. This run-length encoding (RLE) compression can be applied to columnar data (i.e. fields defined as *eXtremeDB*® Financial Edition's 'sequence' data type used for trades, quotes and other market data). In McObject's tests, activating this feature reduced Chicago Board Options Exchange Market Volatility Index (VIX) tick data to one-quarter of its pre-compression size, and increased speed in reading the database by 21%. (*eXtremeDB*® Financial Edition 6.0 also adds a feature for compressing non-columnar data.)

### **Improvements to vector-based statistical function library.**

*eXtremeDB*® Financial Edition 6.0 improves its vector-based function library in additional ways, including:

- Many new functions, including a family of hash aggregate functions that lend efficiency in processing sequences that are unordered (i.e. not sorted by timestamp or fixed interval)
- The ability to create a sequence from an input string, as in the following example, which creates the sequence named "bid": "insert into Quote (bid) values ('{1.0, 1.1, 1.2, 1.1}')"
- The ability, via a new SQL SELECT statement keyword, to "flatten" the results of queries on columnar data (i.e. time series data such as market data) into a row-based format that is more familiar to users of traditional relational database systems

### **About McObject**

Founded by embedded database and real-time systems experts, McObject offers proven data management technology that lends a competitive advantage to capital markets systems. McObject counts among its customers industry leaders such as TradeStation, NSE.IT, SunGard Kingstar, Transaction Network Services, Dalian Commodity Exchange, Financial Technologies of India Ltd. (FTIL), BAE Systems, Northrop Grumman, Siemens, Philips, EADS, Spirent Communications, F5 Networks, Motorola and Boeing. McObject, based in Federal Way, WA is committed to providing innovative technology and first-rate services to customers and partners. The company can be reached at +1-425-888-8505, or visit <http://financial.mcobject.com>.

McObject is represented in the UK and Europe by its exclusive distributor [MCO Europe](#), which also provides consultancy, implementation and development services. On October 30, MCO Europe CEO Ian Hillier-Brook will speak on the topic "Can SQL handle tick data with speed?" at the 2014 STAC Summit conference in London. (See the conference [agenda](#).)

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