

Greatly Improved SQL Index Performance for Oracle Berkeley Database, Version 6.2

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Introduction

The just released version of the Oracle Berkeley Database (BDB) has increased performance for SQL Index based queries.

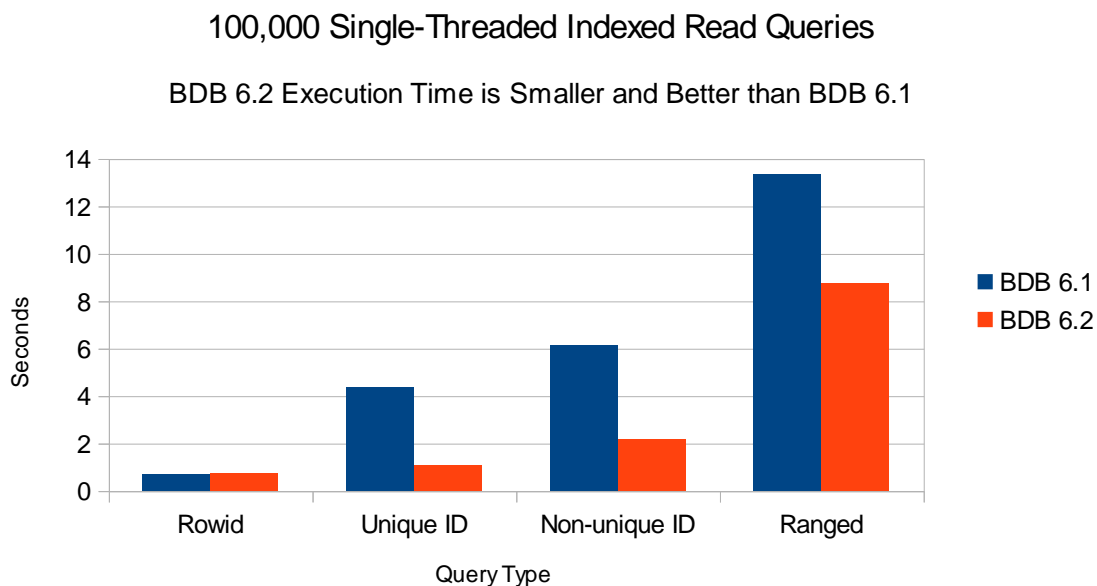
Description

Oracle Berkeley Database 12.1.6.2 includes greatly improved performance of index based SQL queries. Index based queries are now up to 4 times faster in BDB 6.2 compared to BDB 6.1. The charts below show times it took to execute each SELECT statement 100,000 times. The queries executed were:

- » 1. SELECT rowid FROM STOREINFO WHERE rowid=?;
- » 2. SELECT storeid FROM STOREINFO WHERE storeid=?;
- » 3. SELECT lat FROM STOREINFO WHERE lat=?;
- » 4. SELECT longi FROM STOREINFO WHERE longi > ? AND longi < ?;

Results

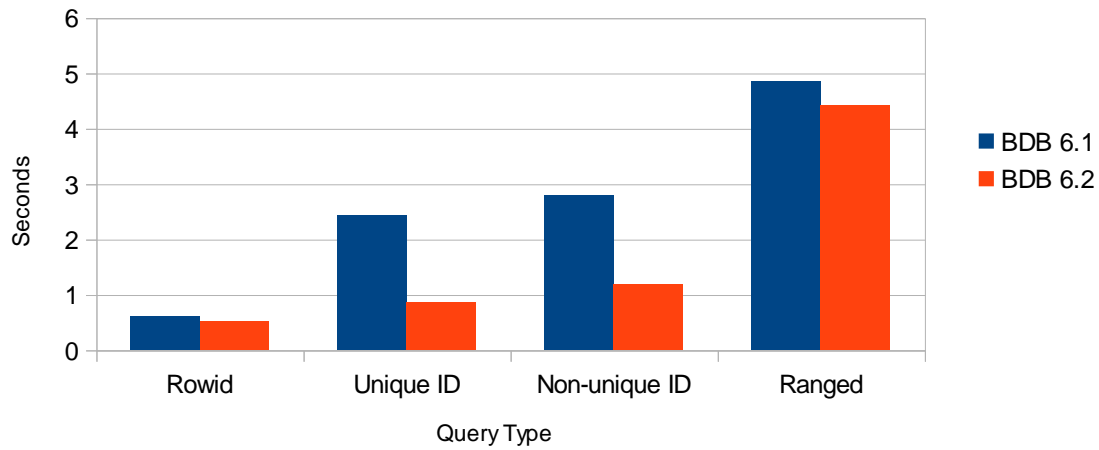
The following chart shows the results comparing the previous version of the Oracle Berkeley Database (BDB), 6.1 with the updated version 6.2.



The columns storeid, lat, and longi each had a dedicated index. The first table shows the performance when using a single thread, and the second (following) shows the performance when using five threads. The test machine contained four Intel Xeon 2.70 GHz CPUs, had 16 GB memory, and ran Oracle Linux Server release 6.4.

100000 Multi-Threaded Indexed Read Queries

BDB 6.2 Execution Time is Smaller and Better than BDB 6.1









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