Oracle Berkeley DB Java Edition, Version 7.5

ORACLE BERKELEY DB Oracle Berkeley DB Java Edition is a high performance, transactional database in pure Java. Using Berkeley DB Java Edition you can persist objects using the Java Collections API, as annotated graphs or as Key/Value pairs in a fast, local database. Oracle Berkeley DB Java Edition is an easy-to-use, scalable and efficient pure Java database. Oracle Berkeley DB Java Edition is widely used in a variety of industries and within products. Oracle Berkeley DB Java Edition is licensed under the Apache License, Version 2.0.

Persistence

Oracle Berkeley DB Java Edition provides all the features of an object-to-relational mapping solution and a transactional database without the overhead. Most, if not all,

Java applications need to store some amount of object data. Sometimes that data must be accessible by other software infrastructure. In these cases simply map the object data into SQL using an ORM such as EJB and let the relational database process and persist the information. Other times this design pattern (Java – ORM – RDBMS) is used when the advantage of an intermediary format and the analytical power of a query language is never realized. If you do not need

Java Virtual Machine	
Application	
Direct Persistence	java.util.collections
Key/Value	
Berkeley DB Java E	dition je.jar

the flexibility of SQL processing, why use an Enterprise Java Beans (EJB) ? Oracle Berkeley DB Java Edition accomplishes the goal of transactional Java object storage without translating objects into SQL thus dramatically improving your application's performance without sacrificing any functionality.

Oracle Berkeley DB Java Edition stores and optimizes access to your Java objects, it provides concurrent transactional data storage, and data is indexed for fast retrieval just as you would expect from any database. The difference is that it does all this in a small, efficient, and easy to- manage embeddable library.

KEYBUSINESS BENEFITS

- Very high performance
- · Simple, direct, indexed storage
- · Local, in-process storage
- High concurrency
- · Massive scalability
- · Transactional data integrity
- · Automatic recovery
- · Zero administration
- · Fast, simple development
- · Flexible deployment



KEY FEATURES

- Pure Java database
- Fast, indexed Btree storage
- ACID Transactions
- · Highly concurrent design
- · Runs in-memory or on disk
- · Zero oversight administration
- Supports Java EE JTA, JCA, JMX and JConsole
- Simple persistent object graph Direct Persistence Layer (DPL) annotation API
- Works with large persistent datasets using the java.util.collections API
- Easy Key/Value API
- Replication for high availability, faulttolerance, fail-over, read-scalability, etc.
- · Scales to hundreds of GB of data
- Designed to scale up as you add cores, CPUs and systems
- Support for Android Platform and Dalvik JVM
- A single JAR file (~0.5 to 2 KB in size, depending on configuration)

Scale Out and Manage Failure Using Replication

Oracle Berkeley DB provides a singlemaster, multireplica highly available database replication.



Transactional data is delivered to all replica nodes with flexible consistency policies per transaction. In the event the master replica node fails a PAXOS-based automated failover election process minimizes downtime. This allows for read scalability, fail-over, hotstandby and other distributed configurations, giving you enterprise grade features in a small, embedded package.

Performance

Oracle Berkeley DB Java Edition's unique log-based database structure and concurrent Btree design brings performance into parity with that of optimized ANSI C solutions while remaining pure Java. Oracle Berkeley DB Java Edition scales across multi-core and multi-processor architectures to efficiently use all available resources.



Java Enterprise Edition Integration

Oracle Berkeley DB Java Edition fits neatly into the Java Enterprise Edition (Java EE) programmer's toolkit by supporting the Java Transaction API (JTA), Java EE Connector Architecture (JCA), JConsole API for monitoring, and Java Management Extensions (JMX) on popular Java EE application servers.

USE CASES

- Caching
- · Application data repository
- POJO persistence
- Queuing/Buffering
- Web Services
- Mobile Devices
- Integration

RELATED PRODUCTS

- Oracle Berkeley DB
- Oracle Berkeley DB XML
- Oracle NoSQL Database

Mobile to Massive

Oracle Berkeley DB Java Edition fits equally well into any stand-alone Java application, an application on a mobile device, or within a globally distributed enterprise application running within the context of a Java EE server. Oracle Berkeley DB Java Edition fills a major gap in the data storage landscape by offering an out-of-the-box solution for situations where previously the only solution was custom code.

Simple, Effective, Fast

Oracle Berkeley DB Java Edition is simple to use, efficient and effective Java object storage. When requirements dictate transactional persistence consider eliminating the SQL processing overhead by using Oracle Berkeley DB Java Edition.



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