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Compass is an open source project built on top of Lucene aiming at simplifying the integration of search into any Java application.

The Future of Compass & ElasticSearch

FRAMES NO FRAMES All Classes DETAIL: FIELD | CONSTR | METHOD

org.apache.lucene.store.jdbc

Class JdbcDirectory

java.lang.Object

pextended by org.apache.lucene.store.Directory

extended by org.apache.lucene.store.jdbc.JdbcDirectory

All Implemented Interfaces:

MultiDeleteDirectory

public class JdbcDirectory extends Directory

implements MultiDeleteDirectory

A Jdbc based implementation of a Lucene Directory allowing the storage of a Lucene index within a database. Uses a jdbc DataSource, Dialect specific for the database used, and an optional JdbcDirectorySettings and JdbcTable for configuration.

The directory works against a single table, where the binary data is stored in Blob. Each "file" has an entry in the database, and different FileEntryHandler can be defines for different files (or files groups).

Most of the files will not be deleted from the database when the directory delete method is called, but will only be marked to be deleted (see MarkDeleteFileEntryHandler. It is done since other readers or searchers might be working with the database, and still use the files. The ability to purge mark deleted files based on a "delta" is acheived using deleteMarkDeleted() and deleteMarkDeleted(long). Note, the purging process is not called by the directory code, so it will have to be managed by the application using the jdbc directory.

For transaction management, all the operations performed against the database do not call commit or rollback. They simply open a connection (using DataSourceUtils.getConnection(javax,sql,DataSource)), and close it using DataSourceUtils.releaseConnection(javax,sql,Connection)). This results in the fact that transcation management is simple and wraps the directory operations, allowing it to span as many operations as needed.

For none managed applications (i.e. applications that do not use JTA or Spring transaction manager), the jdbc directory implementation comes with TransactionAwareDataSourceProxy which wraps a DataSource (should be a pooled one, like Jakartat DBCP). Using it with the <u>DataSourceUtils</u>, or the provided <u>DirectoryTemplate</u> should make integrating or using idbc directory simple.

Also, for none managed applications, there is an option working with autoCommit=true mode. The system will work much slower, and it is only supported on a portion of the databases, but any existing code that uses Lucene with any other Directory implementation should work as is.

If working within managed environments, an external transaction management should be performed (using JTA for example). Simple solutions can be using CMT or Spring Framework abstraction of transaction managers. Currently, the idbc directory implementation does not implement a transaction management abstraction, since there is a very good solution out there already (Spring and JTA). Note, when using Spring and the DataSourceTransactionManager, to provide the jdbc directory with a Spring's TransactionAwareDataSourceProxy.

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Search



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You know, for Search

So, we build a web site or an application and want to add search to it, and then it hits us: getting search working is hard. We want our search solution to be fast, we want a painless setup and a completely free search schema, we want to be able to index data simply using JSON over HTTP, we want our search server to be always available, we want to be able to start with one machine and scale to hundreds, we

































