Subject: Re: Firebird support
Posted by ptimmermans on Fri, 27 Apr 2007 10:29:53 GMT
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Hi,

Well, I created the dml.firebird.class.inc file (see attachment) but did not yet implement the _ddl functions. While implementing I came across the following pecularities:

1. Switching databases in Firebird means dropping the current database connection and connect to the next database. However, it is possible to have multiple (simultaneous) database connections open. In Radicore the Data Access Object can only have one connection. What if you need to access the Data Dictionary, Menu, Workflow, Audit and application database simultaneously?
2. Firebird has a so called multiversion architecture, and hence, cannot determine the number of records after issueing a SELECT, other than by walking the result set and counting the number of records (which is an expensive operation). The only other option is to issue a second SELECT statement, namely a SELECT COUNT(*), with the same FROM and WHERE clause. Unfortunately, this statement is also expensive because the result set still needs to be walked through. If the WHERE references fields that are indexed then the SELECT COUNT(*) can be fast. Furthermore, to have a reliable count the SELECT statements must both be executed within the same transaction. If this is not required they can be executed in different transactions, one after the other (Radicore works with pages of records and not the exact recordcount).
3. I added ibase_free_result() calls to release any database objects. Is this not required for MySQL or Oracle?
4. How does Radicore ensure that there can be only one AUTOINC field per table? Firebird does not support AUTOINC fields. Instead Firebird uses generator/sequence values similar to Oracle.
5. The Data Access Objectlayer does not (yet) use exceptions. Will this change in the future?
6. Firebird has a SELECT..FOR UPDATE but does not recommend using it for several reasons. So, no record/table locking is implemented. But, does Radicore require it?
7. What does Radicore do with transaction levels?
8. I still have to prevent SQL injection.
9. What if the SELECT statement in the getCount() refers to a non-aggregated column? Usually, it will refer to a COUNT(..), MAX(..), etc.
10. Does Radicore ensure that the primarykey fields are a subset of the fieldarray in insertRecord()?
11. Still need to implement BLOB functionality in insertRecord/updateRecord.
12. Still need to implement the _ddl functions.

Could you comment on these, please.

Please take a look at the attached file as well, and maybe give some hints how to improve it.

Next, I will be porting the MENU, WORKFLOW and AUDIT schemas and data. Is there a quick way of doing this?

File Attachments

1) dml.firebird.class.inc, downloaded 1850 times