Subject: SQLite-insert/update in threads (please help!)
Posted by Sc0rch on Fri, 02 Jul 2010 19:24:46 GMT
View Forum Message <> Reply to Message

I'm getting asserts of Fetch and Execute methods, sometimes. I don't know how to avoid them, but threads are really needed.

Some info about task:
- Console application.
- Main loop of program - RPC-server, with functions for user (each of functions use SQLite database, through global SQL)
- Threads registers incoming hardware events and writes them into the SQLite database.

How can I make this task threadsafe?
Please help, two days of experiments, but I have no ideas.

I'll glad to see a little codesnippet with one safe thread.

P.S. Application crashes when I try close database by calling Close() method. Anybody know why so?

Sorry for my English,
Best regards
Anton

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by Sc0rch on Sat, 03 Jul 2010 02:28:26 GMT
View Forum Message <> Reply to Message

Friend suggested to use try-catch construction to control unexpected situations of external resources.

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by Mindtraveller on Sat, 03 Jul 2010 14:15:02 GMT
View Forum Message <> Reply to Message

I used separate thread with queue which handles all the requests to add/fetch from SQLite database (actually it is MtAlt package with CallbackThread class). Until now, had NO runtime errors with SQLite.
Maybe you meet some synchronization issues.

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by mirek on Tue, 06 Jul 2010 07:21:20 GMT
View Forum Message <> Reply to Message

Sc0rch wrote on Fri, 02 July 2010 15:24I'm getting asserts of Fetch and Execute methods, sometimes. I don't know how to avoid them, but threads are really needed.

Some info about task:
- Console application.
- Main loop of program - RPC-server, with functions for user (each of functions use SQLite database, through global SQL)
- Threads registers incoming hardware events and writes them into the SQLite database.

How can I make this task threadsafe?

I would say that you should serialize (using Mutex) any access to global SQL - including creation of Sql cursors (where SQL is default parameter). I hope that would save the problem.

```
StaticMutex SQLMutex;


void MyThreadInsert() {
   Mutex::Lock __(SQLMutex);
   SQL * Insert(...)...
}

void MyGuiSelect() {
   Mutex::Lock __(SQLMutex);
   Sql sql;
   sql * Select(...
}
```

Mirek

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by mirek on Tue, 06 Jul 2010 07:22:06 GMT
View Forum Message <> Reply to Message

Sc0rch wrote on Fri, 02 July 2010 22:28Friend suggested to use try-catch construction to control unexpected situations of external resources.

That is a very bad idea.

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by Sc0rch on Tue, 06 Jul 2010 20:21:34 GMT
View Forum Message <> Reply to Message

luzr wrote on Tue, 06 July 2010 14:22Sc0rch wrote on Fri, 02 July 2010 22:28Friend suggested to use try-catch construction to control unexpected situations of external resources.

That is a very bad idea.
Don't know why bad idea, but I'm trying not use them in code at all =)

I moved all database calls to one thread (for now), and no crashes now, but app became more slow on database read =(
I'll try Mutex soon. Thank you!

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by Sc0rch on Sun, 11 Jul 2010 10:54:59 GMT
View Forum Message <> Reply to Message

No Message Body

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by Sc0rch on Mon, 12 Jul 2010 06:12:35 GMT
View Forum Message <> Reply to Message

I've tested the server (1000 incoming events, no delay): FAILED with Mutex =(I'm getting crashes in Execute, Fetch, GetColumnInfo methods. I've checked all functions with SQL and cursors, there are mutex in all at the start of functions. The crashes now not only from ASSERT, but sometimes even from sqlite3 funcs %)

Maybe, change the SQL engine?

Subject: Re: SQLite-insert/update in threads (please help!)
Posted by mirek on Mon, 12 Jul 2010 07:40:32 GMT
View Forum Message <> Reply to Message

Sc0rch wrote on Mon, 12 July 2010 02:12I've tested the server (1000 incoming events, no delay): FAILED with Mutex =(I'm getting crashes in Execute, Fetch, GetColumnInfo methods. I've checked all functions with SQL and cursors, there are mutex in all at the start of functions. The crashes now not only from ASSERT, but sometimes even from sqlite3 funcs %)

Maybe, change the SQL engine?

Maybe you have some bug in the code.