
Subject: Simple U++ Sql Tutorial
Posted by [michael](#) on Sat, 05 May 2007 15:39:52 GMT
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Hi there,

i'm very new to upp and i'm looking for a really simple tutorial how i can connect to an sql-db (best would be via odbc or directly to an ms-sql, maybe also to my-sql).

The SQLApp Example is a little bit to complicated for me at the moment. It would be very nice if someone could explain me a real basic upp-sql example.

Michael

Edit:

i have tried the Reference Example SQL MySQL and was not able to compile. I got the following error:

```
In file included from J:\Entwicklung\UPP\MySQL\MySQL.cpp:1:
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:12:19: MySql.h: No such file or directory
In file included from J:\Entwicklung\UPP\MySQL\MySQL.cpp:1:
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:44: error: ISO C++ forbids declaration of
`MYSQL' with no type
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:44: error: expected `;' before '*' token
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:56: error: `MYSQL' has not been declared
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:50: error: `MYSQL_PORT' was not declared in
this scope
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h: In constructor
`Upp::MySqlSession::MySqlSession()':
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:62: error: `mysql' undeclared (first use this
function)
C:/Programme/UltimatePP/uppsrc/MySql/MySql.h:62: error: (Each undeclared identifier is
reported only once for each function it appears in.
)
MySQL: 1 file(s) built in (0:01.93), 1935 msec / file, duration = 3750 msec, parallelization 96%
```

There were errors. (0:04.67)

Seems that there is something missing... what do i have to do to get this mysql-example work?

Michael

Subject: Re: Simple U++ Sql Tutorial
Posted by [mezise](#) on Sun, 06 May 2007 07:27:45 GMT

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Mysql libs are not bundled with TheIDE:

- go to <http://dev.mysql.com/downloads/>, choose Mysql version you need and while installing just check dev files option
- set correct paths to installed Mysql bin, include and lib directories (TheIDE menu: Setup/Build methods..)
- if you compile using free MSC71 in Debug mode and have error about lacking file 'libcpmtd.lib' change method e.g. to Optimal

Michal

Subject: Re: Simple U++ Sql Tutorial
Posted by [fallingdutch](#) on Sun, 06 May 2007 07:39:07 GMT
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Hello Michael,

to get rid of the error you need to install the MySql development files.

SQL with upp is pretty easy, first you have to open a database then start using it like this (some simple examples)

```
mySQL*INSERT(MyTable)(COLUMN1,"data")(COLUMN2,"data2");  
mySQL*Update(MyOtherTable)(COLUMN6,"changed data").Where(NAME=="Michael");  
mySQL*Delete(MyTable).Where(ToBeDelete==true);  
mySQL*Select(ID).FROM(MyOtherTable).Where(NAME=="Michael");
```

The only thing you need is a .sch file defining to schema of your database (which tables which colums) UPP creates everything to access it then: Have a look at the SQLApp example.

Bas

Subject: Re: Simple U++ Sql Tutorial
Posted by [michael](#) on Sun, 06 May 2007 10:15:15 GMT
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mezise wrote on Sun, 06 May 2007 09:27Mysql libs are not bundled with TheIDE:

- go to <http://dev.mysql.com/downloads/>, choose Mysql version you need and while installing just check dev files option

- set correct paths to installed Mysql bin, include and lib directories (TheIDE menu: Setup/Build methods..)

- if you compile using free MSC71 in Debug mode and have error about lacking file 'libcprmt.lib' change method e.g. to Optimal

Michal

Thanks alot, Michal - thats it!

Now i can compile the example, great.

And thanks alot to you, Bas. I think there will be a lot of further questions coming up... I'm very new to upp and have only basic skills in C/C++. I tried several C++ Frameworks over the years and U++ seems to be what i was looking for.

Thanks again.

Michael

Subject: Re: Simple U++ Sql Tutorial
Posted by [michael](#) on Sun, 06 May 2007 15:06:10 GMT
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I now have a Schema-File where i defined my tables. How do i use it? When i use your examples i got several error because some things are undefined, like below:

Quote:J:\Entwicklung\UPP\prohibisZA\database.cpp:25: error: `ID' undeclared (first use this function)

I know, there is the SQLApp Example... but at the moment its no help for me. I do not understand how the schema-file works with my code. I think i need a little help to get into the usage of sql and u++.

Michael

Subject: Re: Simple U++ Sql Tutorial
Posted by [fallingdutch](#) on Sun, 06 May 2007 15:49:37 GMT
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this is what you need in a header file (see SQLApp.h):
#define SCHEMADIALECT <plugin/sqlite3/Sqlite3Schema.h> //not sure atm which file defines the SCHEMADIALECT for MySQL!!!
#define MODEL <SQLApp/SQLApp.sch> //your .sch file here
#include <Sql/sch_header.h>

and in a sourcefile

```
#define SCHEMADIALECT <plugin/sqlite3/Sqlite3Schema.h> //again you need the one for MySQL
#include <Sql/sch_source.h>
```

that should do the trick,
Bas

Subject: Re: Simple U++ Sql Tutorial
Posted by [michael](#) on Sun, 06 May 2007 17:15:39 GMT
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Ok, found MySqlSchema and added this to my source-file:

```
#define SCHEMADIALECT <MySql/MySqlSchema.h>
#include "prohibisZA.h"
#include <Sql/sch_source.h>
```

and this to my header-file:

```
#define SCHEMADIALECT <MySql/MySqlSchema.h>
#define MODEL "prohibisZA.sch"
#include <Sql/sch_header.h>
but got these errors...
```

main.cpp

```
In file included from C:/Programme/UltimatePP/uppsrc/MySql/MySqlSchema.h:51,
      from C:/Programme/UltimatePP/uppsrc/Sql/sch_header.h:35,
      from J:\Entwicklung\UPP\prohibisZA\prohibisZA.h:16,
      from J:\Entwicklung\UPP\prohibisZA\mainmenu.cpp:7,
      from C:/Programme/UltimatePP/out/prohibisZA/MINGW.Blitz.Gui.Main\blitz.cpp:3:
C:/Programme/UltimatePP/uppsrc/Sql/sch_model.h:149:15: prohibisZA.sch: No such file or
directory
```

```
C:/Programme/UltimatePP/uppsrc/GridCtrl/GridCtrl.h:916: warning: inline function `Upp::Item&
Upp::GridCtrl::GetItem(int, int)' used but never defined
```

```
In file included from C:/Programme/UltimatePP/uppsrc/MySql/MySqlSchema.h:51,
      from C:/Programme/UltimatePP/uppsrc/Sql/sch_header.h:35,
      from J:\Entwicklung\UPP\prohibisZA\prohibisZA.h:16,
      from J:\Entwicklung\UPP\prohibisZA\main.cpp:9:
```

```
C:/Programme/UltimatePP/uppsrc/Sql/sch_model.h:149:15: prohibisZA.sch: No such file or
directory
```

```
C:/Programme/UltimatePP/uppsrc/GridCtrl/GridCtrl.h:916: warning: inline function `Upp::Item&
Upp::GridCtrl::GetItem(int, int)' used but never defined
```

```
prohibisZA: 4 file(s) built in (0:07.36), 1840 msec / file, duration = 7609 msec, parallelization
```

100%

There were errors. (0:08.82)

Any further ideas?

Michael

Subject: Re: Simple U++ Sql Tutorial
Posted by [fallingdutch](#) on Mon, 07 May 2007 06:15:57 GMT
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did you add the Packages MySql and CtrlLib to your Application?

Bas

Subject: Re: Simple U++ Sql Tutorial
Posted by [michael](#) on Mon, 07 May 2007 13:14:11 GMT
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fallingdutch wrote on Mon, 07 May 2007 08:15: did you add the Packages MySql and CtrlLib to your Application?

Bas

Hi Bas,

Yes, those packages were already added to my project.

But i've now realized my requirements like this:

I've added this packages to my application:

MySql
Sql
SqlCtrl

Added this to my header-file:

```
#include <SqlCtrl/SqlCtrl.h>  
#include <MySQL/MySQL.h>
```

Added this to my constructor:

```
MySqlSession session;
```

And this is how i make my queries:

```
#include "prohibisZA.h"
```

```

void prohibisZA::ConnectMySQL()
{
    if(!session.Connect("prohibisZA", "password", "prohibisZA", "localhost"))
    {
        PromptOK("Verbindungsaufbau zur Datenbank fehlgeschlagen!");
    }
}

void prohibisZA::SelectData(String sqlWhat, String sqlTable, String sqlWhere, String sqlOrder)
{
    Sql sql(session);
    sql.Execute("SELECT " + sqlWhat + " FROM " + sqlTable + sqlWhere + sqlOrder);
    while(sql.Fetch())
    {
        if(sqlTable == "prohibisZA_Kunden") {
            datagrid.Add(String(sql[1]), IntStr(sql[2]), IntStr(sql[3]), String(sql[4]), String(sql[5]),
String(sql[6]));
        }
        else if(sqlTable == "prohibisZA_Server") {
            datagrid.Add(IntStr(sql[1]), String(sql[2]), String(sql[3]), String(sql[4]), String(sql[5]),
String(sql[6]), String(sql[7]), String(sql[8]));
        }
    }
}

```

Works good for me.

But what about the session? Now with this code i always create a new session for every query. Is this the right way?

Michael

Subject: Re: Simple U++ Sql Tutorial
 Posted by [unodgs](#) on Mon, 07 May 2007 13:45:25 GMT
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```
datagrid.Add(String(sql[1]), IntStr(sql[2]), IntStr(sql[3]), String(sql[4]), String(sql[5]), String(sql[6]));
```

BTW, I suppose datagrid is an ArrayCtrl variable. There is no need to conver sql values to string type as arrayctrl can store different type values and display them properly. This line of code should rather look like:

```
datagrid.Add(sql[1], sql[2], sql[3], sql[4], sql[5], sql[6]);
```

or like in your case if you store sql values in array ctrl one by one this row can be written simply as:

```
datagrid.Add(sql);
```

Subject: Re: Simple U++ Sql Tutorial
Posted by [michael](#) on Mon, 07 May 2007 14:40:02 GMT
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unodgs wrote on Mon, 07 May 2007 15:45
datagrid.Add(sql[1], sql[2], sql[3], sql[4], sql[5], sql[6]);

or like in your case if you store sql values in array ctrl one by one this row can be written simply as:

```
datagrid.Add(sql);
```

good point, but what if i dont want to display the first sql value?

datagrid.Add(sql) adds all sql values from 0 to 6. can i use something like sql[1-6]? (Ok, tried but did not work)

Michael