Subject: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Wed, 06 Feb 2019 17:42:47 GMT
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Hi,

I'm new and trying to access some existing PostgreSQL databases with Radicore and on macos. Sofar I met a few problems which I could only solve by changing the code. I'll describe them in separate messages.

The first problem is similar to the one reported in the thread "SQLSRV Driver", message #4722. I could only connect to the database when hard coding the dbname (which is the postgresql schema).

The problem is in the following code in dml.pgsql.class.inc:

```
if (!empty($this->dbname)  AND !empty($schema)) {
    $result = $this->connect($schema) or trigger_error($this, E_USER_ERROR);
} else {
    trigger_error('No value supplied for PGSQL_dbname', E_USER_ERROR);
} // if
```

This code fails because $schema is empty, e.g. when querying for the list of databases.
$this->dbname refers here to the PGSQL_dbname. I removed the check on $schema.
The error message is also misleading in this case since PGSQL_dbname was not empty.

Regards,

Patrick

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Thu, 07 Feb 2019 09:49:11 GMT
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PostgreSQL is peculiar because it has the hierarchy server->database->schema->table instead of server->database->table. When the framework code connects to a server it is possible to change the default database (or "schema" in postgres) to whatever you choose, or even to construct a query which accesses tables in more than one database (or "schema" in postgres). For this reason when using postgres the "database" name *MUST* be hard coded in the config file, and it is only the "schema" name which is dynamic. Please refer to http://www.tonymarston.net/php-mysql/postgresql.html#databas e.connection for details.

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Thu, 07 Feb 2019 12:15:56 GMT
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Tony,

I realize the differences between MySQL and PostgreSQL, but it remains confusing.
I want to access existing postgresql-dbs and I had 2 options: install radicore in each of them in a separate schema, like this:

db1
---schema-radicore
------menu
------dict
        ....
---schema1
------table11
------table12
---....

db2
---schema-radicore
---.....

Or to install radicore in a separate pgsql-database, which I prefer:

db-radicore
---schema-public
------menu
------dict
        ....
db1
---schema1
------table11
------table12
         ...
db2
---schema2
------table21
------table22
---.....

This means I need at least 2 connections, one for a particular db and one for radicore.
This is my config.inc to access a pgsql-database bxtests with schema public (which I renamed to bxtests):

```
if (preg_match('/^(127.0.0.1|localhost|desktop|laptop)$/i', $_SERVER['SERVER_NAME'])) {
     global $servers;
     // server 0
    $servers[0]['dbhost']     = 'localhost';
    $servers[0]['dbengine']   = 'pgsql';
    $servers[0]['dbusername'] = 'user1';
```

```
    $servers[0]['dbuserpass'] = 'password1';
    $servers[0]['dbport']     = '';
    $servers[0]['dbsocket']   = '';
    $servers[0]['dbprefix']   = '';
    $servers[0]['dbnames']    = 'bxtests';
    $servers[0]['PGSQL_dbname'] = 'bxtests';
    $servers[0]['switch_dbnames'] = array('bxtests' => 'public'); // the PostgreSQL schema is 'public'
    $servers[0]['ssl_key']    = '';
    $servers[0]['ssl_cert']   = '';
    $servers[0]['ssl_ca']     = '';
    $servers[0]['ssl_capath'] = '';
    $servers[0]['ssl_cipher'] = '';
     // server 1
    $servers[1]['dbhost']     = 'localhost';
    $servers[1]['dbengine']   = 'pgsql';
    $servers[1]['dbusername'] = 'user2';
    $servers[1]['dbuserpass'] = 'password2';
    $servers[1]['dbport']     = '';
    $servers[1]['dbsocket']   = '';
    $servers[1]['dbprefix']   = '';
    $servers[1]['PGSQL_dbname'] = 'radicore';
    $servers[1]['dbnames']    = '*';
 } // if
```

With this server-configuration, when importing databases (schemas) I found that $schema was empty; I have not been able to clarify this, since I had not yet installed XDebug. I'll look at this again.

Regards,

Patrick

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Fri, 08 Feb 2019 10:11:55 GMT
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If you could find out by using your debugger what is going wrong then that would be a great help.

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Sun, 10 Feb 2019 16:16:34 GMT
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Unfortunately I cannot reproduce the problem without first removing my test-database (bxtests): I

have reactivated the check for !empty($schema) and there is no more problem. But I notice that &_getDBMSengineByHost() is not called anymore, just &_getDBMSengine() and that might explain the difference.

The problem occurred when I tried to import my bxtests database for the very first time, using the 2-server configuration I've send previously.

Luckily I kept the relevant error-message which shows that __construct is called with an empty $dbname. And indeed I don't see right away where in &_getDBMSengineByHost(), $args['dbname'] has been set before calling the constructor.

2019-01-26 21:59:33
Fatal Error: No value supplied for PGSQL_dbname (# 256)
Error in line 93 of file '/Library/WebServer/Documents/radicore/includes/dml.pgsql.cl ass.inc'.
PHP_SELF: /radicore/dict/database(add1)import.php
CURRENT DIRECTORY: /Library/WebServer/Documents/radicore/dict
SERVER_ADDR: ::1
SERVER_NAME: localhost
HTTP_HOST: localhost
User Id: MGR
Role Id: GLOBAL
REMOTE_ADDR: ::1
REQUEST_URI: /radicore/dict/database(add1)import.php?csrf_id=5c4cd84538cc89.99819281&session_name=menu1

Page Stack:

 [0] main_menu
 [1] dictionary
 [2] dict_database(list1)
 [3] dict_database(add1)import

Backtrace:
0: array =
 function: string = errorHandler
 args: array =
   0: integer = 256
   1: string = No value supplied for PGSQL_dbname
   2: string = /Library/WebServer/Documents/radicore/includes/dml.pgsql.cla ss.inc
   3: integer = 93
   4: array =
     args: array =
       dbhost: string = localhost
       dbusername: string = theusername1
       dbuserpass: string = thepassword1
       dbprefix: string =
       PGSQL_dbname: string = bxtests

```
      dbname: string = null
      dbport: string = null
      dbsocket: string = null
    schema: string = null
1: array =
 file: string =  /Library/WebServer/Documents/radicore/includes/dml.pgsql.cla ss.inc
 line: integer = 93
 function: string = trigger_error
 args: array =
   0: string = No value supplied for PGSQL_dbname
   1: integer = 256
2: array =
 file: string =  /Library/WebServer/Documents/radicore/includes/std.singleton .php5.inc
 line: integer = 131
 function: string = __construct
 class: string = pgsql
 type: string = ->
 args: array =
   0: array =
     dbhost: string = localhost
     dbusername: string = theusername1
     dbuserpass: string = thepassword1
     dbprefix: string =
     PGSQL_dbname: string = bxtests
     dbname: string = null
     dbport: string = null
     dbsocket: string = null
3: array =
 file: string =  /Library/WebServer/Documents/radicore/dict/classes/dict_data base_s01.class.inc
 line: integer = 336
 function: string = getInstance
 class: string = RDCsingleton
 type: string = ::
 args: array =
   0: string = pgsql
   1: array =
     dbhost: string = localhost
     dbusername: string = theusername1
     dbuserpass: string = thepassword1
     dbprefix: string =
     PGSQL_dbname: string = bxtests
   2: boolean = 1
4: array =
 file: string =  /Library/WebServer/Documents/radicore/dict/classes/dict_data base_s01.class.inc
 line: integer = 166
 function: string = _getDBMSengineByHost
 class: string = dict_dataBase_s01
 type: string = ->
```

args: array =
0: string = localhost
5: array =
file: string = /Library/WebServer/Documents/radicore/dict/classes/dict_data base_s01.class.inc
line: integer = 90
function: string = _loadDatabases
class: string = dict_dataBase_s01
type: string = ->
args: array =
0: string = localhost
1: array =
2: string =
3: array =
4: array =
public: string = bxtests
6: array =
file: string = /Library/WebServer/Documents/radicore/includes/std.table.cla ss.inc
line: integer = 3276
function: string = _cm_getInitialData
class: string = dict_dataBase_s01
type: string = ->
args: array =
0: array =
7: array =
file: string = /Library/WebServer/Documents/radicore/includes/std.add1.inc
line: integer = 60
function: string = getInitialData
class: string = Default_Table
type: string = ->
args: array =
0: string =
8: array =
file: string = /Library/WebServer/Documents/radicore/dict/database(add1)imp ort.php
line: integer = 9
args: array =
0: string = /Library/WebServer/Documents/radicore/includes/std.add1.inc
function: string = require_once

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Mon, 11 Feb 2019 09:43:25 GMT
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I have examined the amended code for dict_database_s01.class.inc which you sent me, and it actually contains a bug. The first argument in the _loadDatabases() method you changed from $dbhost to $server, yet the first line of the method is still referring to $dbhost. As it has not been defined the first condition always fails.

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Tue, 12 Feb 2019 09:44:55 GMT
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Yes, of course, that explains why the problem with the missing $schema went away.
I've replaced $dbhost by $server in the check and corrected another bug (see enclosed patch) and now the behaviour is as before: when importing databases, _loadDatabases() is called and eventually the constructor of dml.pgsql.class.inc is called with an empty $args['dbname'].

In _getDBMSEngineByServer (previously _getDBMSEngineByHost) $dbname_array and $switch_dbnames are present but not passed.
But no dbname (or schema) is actually needed in this case.

File Attachments
1) patch0002a.diff, downloaded 1179 times

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Wed, 13 Feb 2019 09:19:52 GMT
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I cannot work with diff files, so can you send me the amended class file?

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Wed, 13 Feb 2019 09:44:33 GMT
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Here it comes.

File Attachments
1) dict_database_s01.class.inc, downloaded 1214 times

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Thu, 21 Feb 2019 23:30:49 GMT
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I have recreated the situation which causes this problem on my PC and stepped through it with my debugger. I have made some changes which are different from yours, but which fix the problem. See the attached zip file. Check it out and see if it works for you.

File Attachments
1) RADICORE-patch-2019-02-21.zip, downloaded 1090 times

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by pdv on Mon, 25 Feb 2019 20:21:14 GMT
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Seems OK to me.

Subject: Re: Check for empty $schema in dml.psql.class.inc
Posted by AJM on Tue, 26 Feb 2019 09:39:47 GMT
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Great stuff! I will include this in the next release.