
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.pgsqql.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 PGSQQL_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 PGSQQL_dbname. I removed the check on \$schema. The error message is also misleading in this case since PGSQQL_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#database.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 radicare in each of them in a separate schema, like this:

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

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

Or to install radicare in a separate postgresql-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 radicare. This is my config.inc to access a postgresql-database bxtests with schema public (which I renamed to bxtests):

```
if (preg_match('/^(127.0.0.1|localhost|desktop|laptop)$/', $_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_cpath'] = "";
$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.class.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.psql.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 1030 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 1053 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 934 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.
