QGIS Application - Bug report #20872
QGIS 3.5 not loading or saving multi-dimensional arrays properly from PostGIS layers
2018-12-23 01:41 AM - Cory Albrecht

Status: Reopened
Priority: High
Assignee: Julien Cabieces
Category: Editing
Affected QGIS version: 3.7(master)
Operating System:
Pull Request or Patch supplied: Yes
Crashes QGIS or corrupts data: No

Regression?: Yes
Easy fix?: No
Resolution:
Copied to github as #: 28691

Description

I have map layers stored in PostgreSQL where a field contains two dimensional arrays of values.

```
<table>
<thead>
<tr>
<th>name</th>
<th>full_name</th>
<th>alternate_name</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Spain</td>
<td>&quot;Viceroyalty of New Spain&quot;</td>
<td>&quot;Virreinato de la Nueva España&quot;</td>
</tr>
</tbody>
</table>
| Mexico     | ["Imperio Mexicano"],"Mexican Empire"                                       | ["Virreinato de la Nueva España"],"Nueva España"
| Mexico     | ["Estados Unidos Mexicanos"],"United Mexican States"                         | ["Estados Unidos Mexicanos"] |
| Alta California | ["República de Alta California"],"Republic of Alta California"            | ["Upper California"] |
| New Spain  | ["Viceroyalty of New Spain"]                                                | ["Virreinato de la Nueva España"] |
| España     | "República de España"                                                        | "España" |
```

In QGIS 2.18.x those arrays appeared in Feature Attributes dialog in the PostgreSQL text format for specifying arrays, using curly braces as seen in the psql output fragment above, and you could add to the arrays by entering new items in that format.

But in 3.5 that is no longer the case. Instead, only a bit of the text is shown in the text widget of the dialog.

https://i.ibb.co/FxC1jkf/image.png

Further, when you try to update that field with as value like

```
{"en","Cape Colony"}
```

it gets saved in the database as

```
{"en","Cape Colony"}
```
On loading the layer, the Qt messages windows displays lines like the following:

```
2018-12-22T19:48:10     WARNING    Cannot find separator: 
2018-12-22T19:48:10     WARNING    Cannot find separator: }
```

I just tried 3.4.2 and the issue is there, too.

Here is what the feature attributes dialog looks like in 2.18.25 for the same feature object.

https://i.ibb.co/JdnWm4c/Screenshot-from-2018-12-23-14-14-27.png

Ping.

- Priority changed from Normal to High
- Regression? changed from No to Yes

Assignee set to Julien Cabieces

Pull Request or Patch supplied changed from No to Yes

Proposed PR: https://github.com/qgis/QGIS/pull/9048
#8 - 2019-03-03 06:49 PM - Cory Albrecht

Still happening in 3.45, 3.60 and 3.7

#9 - 2019-03-03 06:49 PM - Giovanni Manghi

- Affected QGIS version changed from 3.5(master) to 3.7(master)

#10 - 2019-03-04 02:02 PM - Julien Cabieces

Still happening in 3.45, 3.60 and 3.7

Proposed PR isn't accepted yep.

#11 - 2019-03-05 09:35 AM - Julien Cabieces

- Status changed from Open to Closed
- % Done changed from 0 to 100

Applied in changeset commit:qgis|0753b144b92763b18021f1d706a1cf184323b1aa.

#12 - 2019-03-19 12:15 AM - Cory Albrecht

Julien Cabieces wrote:

Applied in changeset commit:qgis|0753b144b92763b18021f1d706a1cf184323b1aa.

When will this be in a nightly? I just tried 3.7 and it's not there yet.

#13 - 2019-03-20 08:46 AM - Julien Cabieces

- File scr_table.png added
- File scr_rqst.png added
- File scr_form.png added

Here is some screenshots with current master

```
test_qgis=# select * from my_table;
   id | arrays
-------------------------
  1 | {{en},{fr},{titi}}
  2 | {{en,"tutu tito"},{fr,"hello bobbo"}}
  3 | {{en,"tutu henru"},{fr,"hello coucou titi foo"},{tata,"test1 test2 test3"}}

(3 lignes)
```
Does it look like what you're seeing on your version of QGIS?

Could you please check the QGIS version once launched in the help > About dialog.

#14 - 2019-03-21 04:12 PM - Cory Albrecht

Julien Cabieces wrote:

> Does it look like what you're seeing on your version of QGIS?

I did not use the new list widget, just the plain old text widget, as shown in my screeencaps.

Any text representation that the psql command-line client uses to either show the results of a query, or how one might type in the command by hand as a raw SQL, one should be able to simply copy-paste back and forth between a terminal and QGIS in either the Feature Attribute form's plain text widget or in the Attribute Table columns.

That way all possible PostGIS data types have some kind of minimal support, and special widgets can wait until somebody has the inclination and time to write them.

> Could you please check the QGIS version once launched in the help > About dialog.

Whatever was in the PPA [https://qgis.org/ubuntu-nightly](https://qgis.org/ubuntu-nightly) Monday afternoon and evening, but I reverted to 3.6. I will check whatever is in the PPA once I get home from work.

#15 - 2019-03-22 08:40 AM - Julien Cabieces

- Status changed from Closed to Reopened
I see, there is an additional issue when we use the plain text display (the list widget is working by the way).

I reopen the ticket, and I'll try to find a way to correct this.

### #16 - 2019-03-22 10:34 AM - Julien Cabieces

Proposed PR: [https://github.com/qgis/QGIS/pull/9610](https://github.com/qgis/QGIS/pull/9610)

Be aware that there is still a problem to deal with integer and float array in plain text.

<table>
<thead>
<tr>
<th>Files</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>scr_rqst.png</td>
<td>15.5 KB</td>
<td>2019-03-20</td>
<td>Julien Cabieces</td>
</tr>
<tr>
<td>scr_form.png</td>
<td>10 KB</td>
<td>2019-03-20</td>
<td>Julien Cabieces</td>
</tr>
<tr>
<td>scr_table.png</td>
<td>22.9 KB</td>
<td>2019-03-20</td>
<td>Julien Cabieces</td>
</tr>
</tbody>
</table>