QGIS Application - Bug report #17814
Postgres provider retrieves 4D geometries as 2D

2018-01-07 09:56 PM - Martin Dobias

Status:	Closed			
Priority:	Normal			
Assignee:				
Category:	Data Provider/PostGIS			
Affected QGIS version:	master	**Regression?:**	No	
Operating System:		**Easy fix?:**	No	
Pull Request or Patch supplied:		**Resolution:**	fixed/implemented	
Crashes QGIS or corrupts data:		**Copied to github as #:**	25710	

Description

For some reason PostgreSQL provider retrieves 4-dimensional geometries (e.g. POINT ZM) as 2D geometries: the Z and M values are skipped.

To replicate, create a simple view:

CREATE VIEW multipoint_zm_test AS SELECT 1 AS id, ST_GeomFromText('MULTIPOINT', 25832) AS geom;

In identify results, in derived section the "closest vertex z/m" entries are missing. Another way to confirm the bug is to open 3D view and enable 3D renderer for the layer - points are shown at zero elevation.

Postgres provider uses ST_Force2D() when retrieving 4D geometries - looks like it was a fix for an earlier bug #9748. Not sure if the forcing to 2D still makes sense. When "force2d" feature is disabled, things still seem to work.

Here is the place where force2d is turned on for 4D geometries:
https://github.com/qgis/QGIS/blob/master/src/providers/postgres/qgspostgresconn.cpp#L1491

Related issues:			
Related to QGIS Application - Bug report # 17789: 3D windows not rendering ne...	**Closed**	**2018-01-04**	

Associated revisions

Revision 6a4b8b47 - 2018-01-17 03:38 PM - Martin Dobias

Fix retrieval of 4D geometries (XYZM) from postgres (fixes #17814)

History

#1 - 2018-01-07 10:51 PM - Nyall Dawson

I think the force 2d should be dropped - it's inclusion predated the new geometry engine and now it's definitely a bug.

#2 - 2018-01-08 03:03 AM - Mathieu Pellerin - nIRV

I'm with Nyall, we should drop the force 2D stuff. We've spent quite a lot of effort adding and/or exoosing proper Z/M support to other providers during this cycle, would be a shame not to fix our important postgis provider.

#3 - 2018-01-08 09:44 AM - Jürgen Fischer

- Related to Bug report #17789: 3D windows not rendering negative z-values of geometry added

#4 - 2018-01-08 09:45 AM - Jürgen Fischer

- Assignee deleted (Jürgen Fischer)

#5 - 2018-01-17 03:38 PM - Martin Dobias

- Status changed from Open to Closed

- % Done changed from 0 to 100

Applied in changeset commit:qgis|6a4b8b4762278aec6c1175b9489b9b1d07ccffcd.

#6 - 2018-02-21 10:27 PM - Giovanni Manghi

- Resolution set to fixed/implemented