

QGIS Application - Bug report #17514

QGIS 3D view - Setting DEM for terrain elevation cause canvas to go blank

2017-11-22 06:45 AM - Jeremy Palmer

Status:	Closed	
Priority:	Normal	
Assignee:	Martin Dobias	
Category:	3D	
Affected QGIS version:	master	Regression?: No
Operating System:	MacOSX	Easy fix?: No
Pull Request or Patch supplied:	No	Resolution: fixed/implemented
Crashes QGIS or corrupts data:	No	Copied to github as #: 25411
Description		
Steps to reproduce:		
<div>1. Loaded WMTS layer () and</div> <div>2. DEM into QGIS project (few tiles in VRT from https://data.linz.govt.nz/layer/51768-nz-8m-digital-elevation-model-2012/)</div> <div>3. Loaded 3D view, can see both layers on canvas</div> <div>4. Open 3D view configure and set Terrain Elevation to DEM layer. Click OK</div> <div>5. Canvas goes white/blank. No scrolling or zooming to extent allows you to see anything</div>		
Using QGIS 2.99 installed by Mac homebrew:		
QGIS version		
2.99.0-Master		
QGIS code revision		
394c531		
Compiled against Qt		
5.9.2		
Running against Qt		
5.9.2		
Compiled against GDAL/OGR		
2.2.2		
Running against GDAL/OGR		
2.2.2		
Compiled against GEOS		
3.6.2-CAPI-1.10.2		
Running against GEOS		
3.6.2-CAPI-1.10.2 4d2925d6		
PostgreSQL Client Version		
10.0		
SpatiaLite Version		
4.3.0a		
QWT Version		
6.1.3		
PROJ.4 Version		
493		
QScintilla2 Version		
2.10.1		
This copy of QGIS writes debugging output.		

Associated revisions

Revision d03b6f43 - 2017-11-23 12:03 AM - Martin Dobias

Fix world origin and camera position on terrain change (fixes #17514)

This makes "zoom full" in 3D view working again after modification of terrain generator.

Also we update the camera position so it looks at the same spot as it was before.

Revision ebde3be2 - 2017-11-29 05:05 PM - Martin Dobias

[3d] Reproject DEM for terrain if the DEM has different CRS (fixes #17514)

History

#1 - 2017-11-22 06:48 AM - Jeremy Palmer

Note this was done using the NZTM projection (EPSG:2193). Both layers had this source projection.

#2 - 2017-11-22 10:26 AM - Martin Dobias

What WMTS layer did you use? (seems missing in ticket description)

Using just a DEM terrain tile works for me. Can you confirm that without the extra WMTS layer the 3D view works fine?

#3 - 2017-11-22 10:31 AM - Jeremy Palmer

Used the NZTM tilegrid from https://tiles.maps.linz.io/nz_aerialimagery_basemap/WMTSCapabilities.xml

#4 - 2017-11-22 10:39 AM - Jeremy Palmer

| Can you confirm that without the extra WMTS layer the 3D view works fine?

With just the DEM layer added to the project and having the elevation terrain set in the 3D map I see nothing on the canvas. But should I?

#5 - 2017-11-22 10:44 AM - Martin Dobias

| Used the NZTM tilegrid from https://tiles.maps.linz.io/nz_aerialimagery_basemap/WMTSCapabilities.xml

Thanks - I can reproduce your problem now.

| With just the DEM layer added to the project and having the elevation terrain set in the 3D map I see nothing on the canvas. But should I?

Yes - you should be able to see the DEM layer in the 3D view...

#6 - 2017-11-22 10:56 AM - Jeremy Palmer

| Yes - you should be able to see the DEM layer in the 3D view...

Thanks after a restart of QGIS it came back. Very strange. I'm also getting crashes after long usage, but can't reproduce the crashes yet.

#7 - 2017-11-22 05:17 PM - Martin Dobias

<https://github.com/qgis/QGIS/pull/5698>

#8 - 2017-11-23 12:02 AM - Martin Dobias

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

Applied in changeset commit:qgis|d03b6f435eed3823353556697faf0f1f1e9b9657.

#9 - 2017-11-23 06:16 AM - Jeremy Palmer

Thanks Martin!

#10 - 2017-11-23 06:47 AM - Jeremy Palmer

- Status changed from Closed to Reopened

I've re-opened this. I've noticed this issue still occurs if the WMTS layer and the Raster DEM are in different coordinate reference systems. In this case WMTS EPSG:2193 and DEM as EPSG:3857.

#11 - 2017-11-23 04:05 PM - Martin Dobias

Could you please describe how do you get the issue? And what is your project CRS? Does the DEM layer need to get involved at all?

The only problem I can see is that if I use EPSG:3857 as project CRS and load a map layer in EPSG:2193, the 3D view will get into some trouble with reprojection of raster layer from EPSG:2193 to EPSG:3857... due to the +/- 180 degrees longitude issues I think. The issue applies to 2D map view as well, if I zoom out a lot.

#12 - 2017-11-23 04:29 PM - Giovanni Manghi

- Status changed from Reopened to Feedback

#13 - 2017-11-23 06:00 PM - Jeremy Palmer

Steps to reproduce:

1. Open QGIS and create blank project
2. Open layer: https://tiles.maps.linz.io/nz_aerialimagery_basemap/WMTSCapabilities.xml and add NZTM (EPSG:2193) tilegrid
3. Add DEM layer (few tiles in VRT from <https://data.linz.govt.nz/layer/51768-nz-8m-digital-elevation-model-2012/>) - EPSG 3857

4. Open new 3D map view
5. Open new 3D map view config and set terrain elevation to DEM layer. Click Ok
6. Screen goes blank, click reset view to see content again - map views ok.
7. Open new 3D map view config again, change a terrain setting (e.g Vertical scale). Click Ok
8. Screen goes blank

After the second config change you can't even reset the view to see the map.

#14 - 2017-11-23 06:04 PM - Giovanni Manghi

- *Status changed from Feedback to Open*

#15 - 2017-11-30 05:30 PM - Martin Dobias

- *Status changed from Open to Closed*

Applied in changeset commit:qgis|ebde3be270bbae86e57ab66d331e386e5b1c1dfc.

#16 - 2017-11-30 05:31 PM - Giovanni Manghi

- *Resolution set to fixed/implemented*