

QGIS Application - Bug report #7327

dxg export drops elevation data

2013-03-11 09:34 PM - G Stewart

Status: Closed	
Priority: Normal	
Assignee:	
Category: Vectors	
Affected QGIS version: master	Regression?: No
Operating System:	Easy fix?: No
Pull Request or Patch supplied:	Resolution: end of life
Crashes QGIS or corrupts data:	Copied to github as #: 16314
Description	
<p>When exporting a dxg of land height contours, the elevation data is not exported. QGIS uses LWPOLYLINE for lines exported to dxg. The Elevation data should be saved on the 38 value for the LWPOLYLINE, before defining all the vertex's.</p> <p>(If you were to use the old style POLYLINE then it would be on the 30 value, or if you were to use 3DPOLYLINE then it would go on the 70 value).</p>	

History

#1 - 2013-03-12 03:28 AM - Giovanni Manghi

- Category set to Vectors
- Status changed from Open to Feedback

likely part of the #4381 issue.

#2 - 2013-03-12 07:21 PM - G Stewart

I don't think it is the same issue - but yes it could be fixed at the same time.

I saw that issue - about corrupted files which is as they suggest due to the extraneous headers that AutoCAD doesn't like. This is commonly a problem with AutoCAD and dxg, I worked with a specialty programme which had the same problem 15 years ago. It could always be fixed by simply deleting the extra header data from the dxg file.

I have other (current) specialty software that can read the dxg that is written by QGIS, and the elevation data is not included. If you look into the dxg file (it is plain text) you can see that the entity dotted pair for the LWPOLYLINEs does not include the "38 pair" which specifies the z value.

Actually this issue would be very easy to rectify by somebody who knows the QGIS code (I don't) - simply write the elevation field (say EL = xxx) as 38 xxx into the entity string for each polyline.

#3 - 2013-09-16 01:19 PM - Alister Hood

Can anyone get rid of the feedback tag?

This issue is still around, but #4381 isn't.

#4 - 2013-09-16 05:23 PM - Alister Hood

Sorry, actually I don't know if this issue is still around - My shape file was actually 2D so I had to use ogr2ogr with the -zfield option.

I haven't used the feature lately so I can't confirm if it has been fixed, though I suspect it hasn't. Any elevation contour, regardless of whether it was 2D or 3D must have an elevation value (otherwise it's not an elevation contour) that can be exported to the dxf so this should be easily confirmed by just about anybody. As noted before, you can see the structure of the dxf file in any text editor. Start by searching for the word "LWPOLYLINE".

The current dxf definition for the exported contour looks (in part) like this:

```
"...  
0  
LWPOLYLINE  
5  
20000  
8  
0  
100  
AcDbEntity  
100  
AcDbPolyline  
70  
0  
90  
27  
10  
706986.85  
20  
7663702.09  
10  
706956.83  
20  
7663704.41  
...."
```

You'll note that the structure is "10 x-cord 20 y-cord (repeat)". the value 10 signifies that the following number will be the x-coordinate of a vertex, similarly a value of 20 signifies a y-coordinate. The old 3DPOLYLINE structure used a 30 to signify a z-coordinate. But the new LWPOLYLINE entity, which QGIS is using, (see the 0 value in the string above for the entity type) stores the z-coordinate (ie the elevation) on the 38 value. Hence in the string above, if the elevation was "EL", it should read:

```
"...  
0  
LWPOLYLINE  
5  
20000  
8  
0  
100  
AcDbEntity  
100  
AcDbPolyline  
70  
0  
90  
27  
38  
EL
```

10
706986.85
20
7663702.09
10
706956.83
20
7663704.41
...."

The position of the 38 value is not particularly sensitive, as long as it comes after the 0 value, and preferably before any of the vertices (ie the 10 & 20 values).

That's all that is required to fix this issue. Hope this helps understand / fix this issue.

#6 - 2014-04-03 11:39 PM - Paolo Cavallini

Any plan to fix this? Thanks.

#7 - 2015-05-22 12:19 AM - Giovanni Manghi

- *Status changed from Feedback to Open*

seems still valid.

#8 - 2017-05-01 01:09 AM - Giovanni Manghi

- *Regression? set to No*

- *Easy fix? set to No*

#9 - 2019-03-09 04:04 PM - Giovanni Manghi

- *Resolution set to end of life*

- *Status changed from Open to Closed*

End of life notice: QGIS 2.18 LTR

Source:

<http://blog.qgis.org/2019/03/09/end-of-life-notice-qgis-2-18-ltr/>