

QGIS Application - Bug report #18606

QGIS 3.0 unable to extract vertices from polygons with inner hole

2018-04-01 01:07 PM - Wim van Blitterswijk

Status:	Closed	
Priority:	Normal	
Assignee:	Victor Olaya	
Category:	Processing/QGIS	
Affected QGIS version:	3.0.0	Regression?: Yes
Operating System:	Windows	Easy fix?: Yes
Pull Request or Patch Supplied:		Resolution: invalid
Crashes QGIS or corrupts data:		Copied to github as #: 26494

Description

I created a vector by polygonizing a raster with 40x40 meter cell size. The coordinates of the cell boundaries in the raster are exact multiples of 40 m. The conversion to polygon was carried out in both QGIS 2.18 and 3.0 (2.18.18 and 3.0.1 to be precise). The QGIS versions use the same routine to convert from raster to polygon, gdal_polygonize.py, with the same version: \$Id: gdal_polygonize.py 36130 2016-11-06 15:51:48Z rouault \$

The vectors generated by both versions are exactly the same, which was confirmed through a binary comparison of the shape files. I continued to work with the shape generated by QGIS v 3.0.

Adding the geometry columns to the vector works good in 2.18, for all polygons in the vector. Adding geometry in 3.0 fails, however, for a number of polygons. These polygons all appeared to have one or more inner holes. (Though there were also polygons with holes for which 3.0 did succeed to add the geometry) To find what's going wrong in 3.0, I selected one of the simplest polygons for which 3.0 could not add the geometry and saved it as Select_1.shp. See attached Select_1.jpg.

In 2.18 I extracted the vertices of Select_1 (with Vector - Geometry tools - Extract vertices), giving Nodes_1. Exporting the coordinates (Vector - Geometry tools - Extract Geometry columns) gives Nodes_1_geo.

Reading the dbf of the last shape the vertices of the polygon are correct: still exact multiples of 40 m.

It appears that QGIS 3.0 is unable to extract the vertices from Select_1.shp, error message

'Feature (0) has invalid geometry and has been skipped. Please fix the geometry or change the Processing setting to the "Ignore invalid input features" option.'

The shape files for the vectors Select_1, Nodes_1 and Nodes_1_geo are in the attached Vectors.zip.

History

#1 - 2018-04-02 02:39 AM - Nyall Dawson

- Resolution set to invalid
- Status changed from Open to Closed

This is expected behaviour - the generated polygons aren't technically valid, and the default Processing setting is to halt execution when an invalid geometry is encountered (hence the "Feature (0) has invalid geometry and has been skipped. Please fix the geometry or change the Processing setting to the "Ignore invalid input features" option." error).

Check the Processing options, General, "Invalid Features Filtering" setting. Or run the "fix geometries" algorithm on the layer.

Files

Select_1.jpg	13.6 KB	2018-04-01	Wim van Blitterswijk
Vectors.zip	4.57 KB	2018-04-01	Wim van Blitterswijk