QGIS Application - Bug report #21603
Crash when using QgsGeometry.delaunayTriangulation()

2019-03-17 07:14 PM - Antoine Lafranchis

Status:	Closed		
Priority:	High		
Assignee:			
Category:	Python bindings / sipify		
Affected QGIS version:	3.7(master)	**Regression?:**	No
Operating System:	Windows 10	**Easy fix?:**	No
Pull Request or Patch supplied:	No	**Resolution:**	invalid
Crashes QGIS or corrupts data:	Yes	**Copied to github as #:**	29419

Description

Qgis crashes (with windows message "qgis-dev-bin-g7.exe has stopped working") after using QgsGeometry.delaunayTriangulation() in python script.

It reproduces when executing the attached processing script with the attached point layer.

Running the following code in python console can also trigger the crash, but it's sometimes necessary to run it twice:

```
pointLayer = iface.activeLayer()
multiPoint = QgsMultiPoint()
for pointFeature in pointLayer.getFeatures():
    multiPoint.addGeometry(pointFeature.geometry().vertexAt(0))

multiPointGeometry = QgsGeometry(multiPoint)
triangulation = multiPointGeometry.delaunayTriangulation(1e-3)
multiTriangle = triangulation.get()
for i in range(multiTriangle.numGeometries()):
    triangle = multiTriangle.geometryN(i)
    triangleGeometry = QgsGeometry(triangle)
```

History

#1 - 2019-03-17 09:04 PM - Nyall Dawson

- Resolution set to invalid

- Status changed from Open to Closed

triangleGeometry = QgsGeometry(triangle)

Should be

triangleGeometry = QgsGeometry(triangle.clone())

You are "stealing" ownership of an already owned object, which leads to a crash

#2 - 2019-03-17 10:23 PM - Antoine Lafranchis

Thanks, it works fine now!

Isn't it possible to throw exceptions instead of crashing in cases of ownership theft?

#3 - 2019-03-18 10:14 AM - Nyall Dawson

I think it should be, but generating these bindings is very complex and sometimes fragile, so I'm not 100% confident. I'll give it a shot sometime.

Files

test_points.dbf	110 Bytes	2019-03-17	Antoine Lafranchis
test_points.cpg	5 Bytes	2019-03-17	Antoine Lafranchis
test_points.prj	431 Bytes	2019-03-17	Antoine Lafranchis
test_points.qpj	682 Bytes	2019-03-17	Antoine Lafranchis
test_points.shp	212 Bytes	2019-03-17	Antoine Lafranchis
test_points.shx	132 Bytes	2019-03-17	Antoine Lafranchis
TestTriangulation.py	1.88 KB	2019-03-17	Antoine Lafranchis