QGIS Application - Bug report #5824
QGIS silently fails to add a geometry using "avoid intersection" on a polygon that passes geometry validation

2012-06-18 06:13 PM - Giovanni Manghi

Status:	Closed			
Priority:	High			
Assignee:				
Category:	Digitising			
Affected QGIS version:	master	**Regression?:**	No	
Operating System:		**Easy fix?:**	No	
Pull Request or Patch supplied:		**Resolution:**	fixed	
Crashes QGIS or corrupts data:		**Copied to github as #:**	15300	

Description

Add the attached polygon. It has obviously something weird/wrong, nevertheless both the node tool and the "check geometry" tools do not return any error.

Then try digitise a new polygon adjacent to the existing one, using the "avoid intersection" feature: QGIS will silently fail to add the new geometry, while the attribute is recorded in the table of attributes.

If a warning will be issued then QGIS must also recognise the geometry problem (as it happens with self intersections).

Related issues:

Related to QGIS Application - Bug report # 5161: Updating GEOS library to 3.3...	**Closed**	**2012-03-12**
Duplicated by QGIS Application - Bug report # 5917: QGIS crashes when digitiz...	**Closed**	**2012-06-30**

History

#1 - 2012-06-18 06:17 PM - Giovanni Manghi

- Subject changed from QGIS silently fails to add a geometry using "avoid interection" on a polygon that passes gemoetry validation to QGIS silently fails to add a geometry using "avoid interection" on a polygon that passes geometry validation

#2 - 2012-06-19 02:15 AM - Salvatore Larosa

it seems not be a valid geometry, isGeosValid() returns False!

May be this the problem? or
avoid intersection option doesn't work with invalid geometry?

#3 - 2012-06-19 02:44 AM - Giovanni Manghi

Salvatore Larosa wrote:

> *it seems not be a valid geometry, isGeosValid() returns False!*
>
> *May be this the problem? or*
> *avoid intersection option doesn't work with invalid geometry?*

yes it is clearly invalid even without using GEOS. The problem is that QGIS validates the geometry (and the common user uses QGIS not GEOS :)), but then silently fail to work.

#4 - 2012-06-19 02:50 AM - Jürgen Fischer

- Subject changed from QGIS silently fails to add a geometry using "avoid interection" on a polygon that passes geometry validation to QGIS silently fails to add a geometry using "avoid intersection" on a polygon that passes geometry validation

#5 - 2012-06-19 03:00 AM - Giovanni Manghi

by the way:

in the attached polygon there are what seems to be two "segments" that are the cause of the problem (for example zoom in the right bottom corner of the polygon): it seems to me there is no way with the node tool to get rid of such anomalies.

#6 - 2012-06-19 03:10 AM - Giovanni Manghi

well, changing the validation method to geos the error obviously is shown. I still can't see an easy way to get rid of such "segments", that in truth are flattened polygons with 3 vertices.

#7 - 2012-06-19 03:13 AM - Giovanni Manghi

Giovanni Manghi wrote:

> *I still can't see an easy way to get rid of such "segments", that in truth are flattened polygons with 3 vertices.*

of course... the "delete part" tool... I need a coffee.

#8 - 2012-06-19 03:18 AM - Salvatore Larosa

Giovanni Manghi wrote:

> *The problem is that QGIS validates the geometry (and the common user uses QGIS not GEOS :)), but then silently fail to work.*

Do you mean that "QGIS validates the layer"??

Anyway, if I create a new geometry (with enabled avoid intersection option) and saves I get segfault:

```
Program received signal SIGSEGV, Segmentation fault.
OGRGeometryFactory::createFromWkb (pabyData=0x0, poSR=0x0, ppoReturn=0x7fffffffb538, nBytes=173)
    at ogrgeometryfactory.cpp:75
75    OGRErr OGRGeometryFactory::createFromWkb(unsigned char *pabyData,
(gdb) bt
#0  OGRGeometryFactory::createFromWkb (pabyData=0x0, poSR=0x0, ppoReturn=0x7fffffffb538,
    nBytes=173) at ogrgeometryfactory.cpp:75
#1  0x00007fffd5e7e38b in QgsOgrProvider::addFeature (this=0x53a6630, f=...)
    at /home/sam/pacchetti_gis/Quantum-GIS/src/providers/ogr/qgsogrprovider.cpp:1006
#2  0x00007fffd5e7eefc in QgsOgrProvider::addFeatures (this=0x53a6630, flist=...)
    at /home/sam/pacchetti_gis/Quantum-GIS/src/providers/ogr/qgsogrprovider.cpp:1084
#3  0x00007ffff4bec7b4 in QgsVectorLayer::commitChanges (this=0x53edf70)
    at /home/sam/pacchetti_gis/Quantum-GIS/src/core/qgsvectorlayer.cpp:3876
#4  0x000000000056b7e5 in QgisApp::toggleEditing (this=0xe9c9b0, layer=0x53edf70, allowCancel=true)
```

at /home/sam/pacchetti_gis/Quantum-GIS/src/app/qgisapp.cpp:4755

#5 0x000000000056ac9c in QgisApp::toggleEditing (this=0xe9c9b0)

at /home/sam/pacchetti_gis/Quantum-GIS/src/app/qgisapp.cpp:4635

#6 0x00000000007daac6 in QgisApp::qt_static_metacall (_o=0xe9c9b0,

_c=QMetaObject::InvokeMetaMethod, _id=153, _a=0x7fffffffc3a0)

at /home/sam/pacchetti_gis/Quantum-GIS/build-master/src/app/moc_qgisapp.cxx:565

#7 0x00007ffff3408591 in QMetaObject::activate(QObject*, QMetaObject const*, int, void**) ()

from /usr/lib/x86_64-linux-gnu/libQtCore.so.4

#8 0x00007ffff2770d52 in QAction::triggered(bool) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#9 0x00007ffff2770f3f in QAction::activate(QAction::ActionEvent) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#10 0x00007ffff2b4296a in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#11 0x00007ffff2b42c1c in QAbstractButton::mouseReleaseEvent(QMouseEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#12 0x00007ffff2c001da in QToolButton::mouseReleaseEvent(QMouseEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#13 0x00007ffff27c7964 in QWidget::event(QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#14 0x00007ffff2777204 in QApplicationPrivate::notify_helper(QObject*, QEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#15 0x00007ffff277c953 in QApplication::notify(QObject*, QEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#16 0x00007ffff4ae6bb0 in QgsApplication::notify (this=0x7fffffffdb10, receiver=0xed4480, event=

0x7fffffffcd20) at /home/sam/pacchetti_gis/Quantum-GIS/src/core/qgsapplication.cpp:222

#17 0x00007ffff33f41ac in QCoreApplication::notifyInternal(QObject*, QEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtCore.so.4

#18 0x00007ffff27781d2 in QApplicationPrivate::sendMouseEvent(QWidget*, QMouseEvent*, QWidget*, QWidget*, QWidget**,

QPointer<QWidget>&, bool) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#19 0x00007ffff27f4635 in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#20 0x00007ffff27f34fa in QApplication::x11ProcessEvent(_XEvent*) ()

from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#21 0x00007ffff281be62 in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#22 0x00007fffef42c205 in g_main_context_dispatch () from /lib/x86_64-linux-gnu/libglib-2.0.so.0

#23 0x00007fffef42c538 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0

#24 0x00007fffef42c5f4 in g_main_context_iteration () from /lib/x86_64-linux-gnu/libglib-2.0.so.0

#25 0x00007ffff34236cf in QEventDispatcherGlib::processEvents(QFlags<QEventLoop::ProcessEventsFlag>) () from

/usr/lib/x86_64-linux-gnu/libQtCore.so.4

#26 0x00007ffff281baee in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4

#27 0x00007ffff33f2f92 in QEventLoop::processEvents(QFlags<QEventLoop::ProcessEventsFlag>) ()

from /usr/lib/x86_64-linux-gnu/libQtCore.so.4

#28 0x00007ffff33f31e7 in QEventLoop::exec(QFlags<QEventLoop::ProcessEventsFlag>) ()

from /usr/lib/x86_64-linux-gnu/libQtCore.so.4

#29 0x00007ffff33f8277 in QCoreApplication::exec() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4

#30 0x0000000000547405 in main (argc=1, argv=0x7fffffffe3b8)

at /home/sam/pacchetti_gis/Quantum-GIS/src/app/main.cpp:792

(gdb)

happens to you?

#9 - 2012-06-19 03:21 AM - Giovanni Manghi

yes, the issue is #5584

#10 - 2012-06-21 03:06 AM - Giovanni Manghi

I cannot see the "GEOS" option in "Validation Method" under Windows/OSGeo4W, am I missing a package?

#11 - 2012-06-21 05:16 AM - Jürgen Fischer

Giovanni Manghi wrote:

> *I cannot see the "GEOS" option in "Validation Method" under Windows/OSGeo4W, am I missing a package?*

no, see #5161

#12 - 2012-06-30 09:04 AM - Giovanni Manghi

see also #5917

#13 - 2012-10-05 01:24 PM - Giovanni Manghi

- Resolution set to fixed

- Status changed from Open to Closed

Something changed, I guess for the better as now with master, with the above steps, QGIS always add the new polygon. I'll tag this as fixed, but I would appreciate if someone can test also on Windows, as in these days I cannot access my VM.

Files

bad_good_polygon_shp.zip	2.85 KB	2012-06-18	Giovanni Manghi