

## QGIS Application - Bug report #14752

### GEOS exceptions crash QGIS on windows

2016-05-01 07:31 AM - Anita Graser

|  |           |                                      |
|--|-----------|--------------------------------------|
| <b>Status:</b>   | Closed    |                                      |
| <b>Priority:</b>   | High      |                                      |
| <b>Assignee:</b>   |           |                                      |
| <b>Category:</b>   | Labelling |                                      |
| <b>Affected QGIS version:</b>  | 3.0.0     | <b>Regression?:</b> Yes              |
| <b>Operating System:</b>   | Windows   | <b>Easy fix?:</b> No                 |
| <b>Pull Request or Patch supplied:</b>   | No        | <b>Resolution:</b> fixed/implemented |
| <b>Crashes QGIS or corrupts data:</b>  | Yes       | <b>Copied to github as #:</b> 22709  |
| <b>Description</b>   |           |                                      |
| <p>The same project that works fine in qgis-dev and qgis-rel-dev (tested on Windows) crashes qgis 2.14.2. The dump file is attached.</p> <p>It also used to crash 2.14.1 while the then qgis-rel-dev version worked. Therefore, back then, I assumed the issue had been fixed ... but it seems to be much more mysterious.</p> |           |                                      |
| <b>Related issues:</b>   |           |                                      |
| Related to QGIS Application - Bug report # 18235: QGIS 3.00 standalone 64 bit...   |           | <b>Closed</b> <b>2018-02-26</b>      |

#### Associated revisions

##### Revision e05a5a93 - 2018-03-02 06:09 AM - Nyal Dawson

[pal] Use QgsGeometry::makeValid instead of buffer(0) to repair geometries

Possibly refs #14752

##### Revision 23457336 - 2018-03-06 02:20 AM - Nyal Dawson

[pal] Use QgsGeometry::makeValid instead of buffer(0) to repair geometries

Possibly refs #14752

(cherry-picked from e05a5a9)

##### Revision ad1fef9f - 2018-05-29 12:26 PM - Nyal Dawson

Workaround crash in msvc when raising a GEOS exception

In some circumstances MSVC tries to raise it's own internal exception when we try to raise a GEOSException. This results in a hard crash of QGIS.

To workaround this, we cautiously try to raise a GEOSException on msvc builds, catching all other raised exceptions if throwing the GEOSException triggers them. This at least allows us to gracefully handle the geos error without crashing QGIS (although the detailed GEOS error message is not available when this situation occurs... but that's still better than

a crash!).

If you want to try to find a better fix for this, the testqgsexpression.cpp test suite will demonstrate the issue.

Without this fix the test will crash on the "line\_interpolate\_point point" test.

Refs #14752

## History

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### #1 - 2016-05-01 07:32 AM - Anita Graser

- File qgis-20160501-162647-4308-8588-f5763f0.zip added

### #2 - 2016-05-01 02:55 PM - Nyall Dawson

I can't reproduce (using Linux)

### #3 - 2016-05-01 11:32 PM - Anita Graser

Another user reported the issue to me, so it's not a local issue on my machine. Maybe Win-specific.

### #4 - 2016-05-22 11:27 AM - Giovanni Manghi

- Category set to Project Loading/Saving

This is what I see on Windows:

- seems ok up to 2.12 (tested 2.8, 2.10 and 2.12)
- 2.14.3, project opens, no crash, empty canvas
- master, project opens, no crash, map cannot be zoomed or panned.

### #5 - 2016-05-22 11:49 AM - Giovanni Manghi

- master, project opens, no crash, map cannot be zoomed or panned.

weird, tested again and is ok on master (still not ok on 2.14.3, but no crash also).

### #6 - 2016-05-22 12:16 PM - Giovanni Manghi

- Status changed from Open to Feedback

### #7 - 2016-05-25 12:34 PM - Anita Graser

- Status changed from Feedback to Closed

The crash seems gone in 2.14.3 (OSGeo4W version). The project even shows up correctly on canvas (not empty as Giovanni mentioned).

In master, the canvas appeared empty when I first tried opening it. Used "zoom to extent" and it displayed fine. When I closed and reopened again,

everything looked ok from the beginning.

Bit strange ... Will reopen if crashes reoccur.

**#8 - 2016-08-02 12:00 AM - Anita Graser**

- *Status changed from Closed to Reopened*
- *File bugminidump.zip added*

The issue seems to have resurfaced in 2.16.1-2, causing crashes and the attached minidump (provided by K Trinko).

**#9 - 2016-10-09 11:53 PM - Andreas Neumann**

I can confirm the crash on loading in 2.16.3 (build #7d00cae). But the project opens fine in QGIS 2.x master (2.17, build #6e4dbc0)

However, even with 2.17, if one zooms in, rendering can be very slow. Maybe an issue with the glow/shade effects when zooming in? But that is a different issue ... Also there seem to be projection/clipping issues when zooming around ? Definitely something weird in this project.

I tested on Win 7 with the Win64 builds.

**#10 - 2017-04-30 05:06 PM - Giovanni Manghi**

- *Regression? set to Yes*

**#11 - 2017-04-30 05:08 PM - Giovanni Manghi**

- *Priority changed from Severe/Regression to High*

**#12 - 2017-05-01 01:10 AM - Giovanni Manghi**

- *Easy fix? set to No*

**#13 - 2017-05-28 07:58 PM - Anita Graser**

- *Description updated*

Update: OSGeo4W's 2.14.15 still crashes, OSGeo4W's 2.18.9 works for me but others still report issues with the stand-alone installers.

**#14 - 2017-05-28 08:15 PM - Anita Graser**

- *File Screenshot 2017-05-28 21.13.34.png added*

I've narrowed it down to the point city layer. When 2.14 tries to render that layer, it crashes.

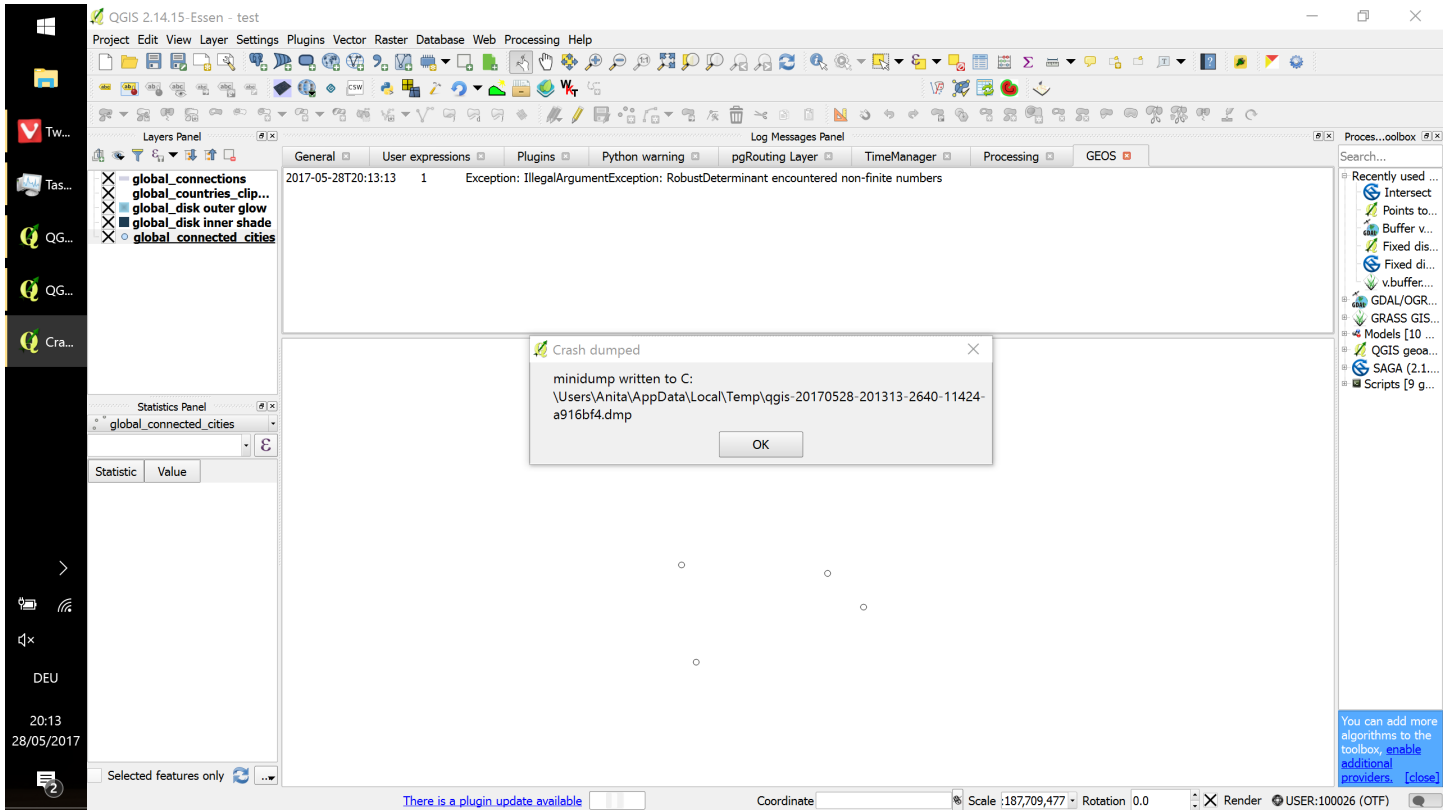
There is a GEOS Exception: IllegalArgumentException: RobustDeterminant encountered non-finite numbers.

**#15 - 2017-05-28 08:16 PM - Anita Graser**

- *File deleted (Screenshot 2017-05-28 21.13.34.png)*

**#16 - 2017-05-28 08:17 PM - Anita Graser**

- *File geos\_error.png added*



**#17 - 2017-05-28 08:21 PM - Anita Graser**

- File *qgis-20170528-201313-2640-11424-a916bf4.zip* added

**#18 - 2017-05-28 08:28 PM - Anita Graser**

- Affected QGIS version changed from 2.14.2 to 2.14.15

I've further narrowed it down to activating "Discourage labels from covering features" for the city labels. If this is deactivated, the crashing stops.

**#19 - 2017-05-29 12:08 PM - Giovanni Manghi**

Anita Graser wrote:

*I've further narrowed it down to activating "Discourage labels from covering features" for the city labels. If this is deactivated, the crashing stops.*

Anita for sake of clarity would you agree if I then create a new issue ticket with just this fundamental piece of information (and the necessary dataset)?

**#20 - 2017-05-29 02:17 PM - Giovanni Manghi**

Anita Graser wrote:

*I've further narrowed it down to activating "Discourage labels from covering features" for the city labels. If this is deactivated, the crashing stops.*

Hi Anita,

made some test of my own.

2.14.15 crashes on project load, as well as 2.18.9.

2.18.9 nightly does not crash on project load.

BUT

I tried load the point layer in 2.18.9 nightly in a blank project, enable labels without the "Discourage labels from covering features" option and if you zoom in/out quickly with the mouse wheel is easy enough to make it crashes too...

all from osgeo4w.

#### #21 - 2017-06-05 01:40 PM - Anita Graser

Giovanni Manghi wrote:

*Anita for sake of clarity would you agree if I then create a new issue ticket with just this fundamental piece of information (and the necessary dataset)?*

Sure, please do.

#### #22 - 2017-06-05 01:59 PM - Giovanni Manghi

Anita Graser wrote:

*Giovanni Manghi wrote:*

*Anita for sake of clarity would you agree if I then create a new issue ticket with just this fundamental piece of information (and the necessary dataset)?*

*Sure, please do.*

this was before "I tried load the point layer in 2.18.9 nightly in a blank project, enable labels without the "Discourage labels from covering features" option and if you zoom in/out quickly with the mouse wheel is easy enough to make it crashes too..." :)

if the source of the problem was 100% that option would had made sense to create a new simpler and clearer ticket, as it does not seems the case I think that is better to keep the ticket as it is.

#### #23 - 2017-10-06 08:46 AM - Giovanni Manghi

- Status changed from Reopened to Feedback

Tried again on master... and here with MT enabled it seems to not crash... what about others?

#### #24 - 2017-10-06 07:27 PM - Anita Graser

- Affected QGIS version changed from 2.14.15 to 2.18.13

2.14.19 and 2.18.13 crash for me.

2.99 does not crash, but the project CRS and some layer CRS are not restored correctly :(

Seems like I don't have any version that opens the project correctly anymore.

**#25 - 2017-10-06 07:33 PM - Giovanni Manghi**

| 2.99 does not crash, but the project CRS and some layer CRS are not restored correctly :(

but this could be another issue. I set manually the project CRS to 3857 and it works/shows fine for me, what about there?

**#26 - 2017-10-06 07:51 PM - Anita Graser**

Yes, I can set the correct CRS manually, and so far 2.99 doesn't seem to crash ... but we've observed this behavior with previous master versions as well.

**#27 - 2017-11-01 11:49 AM - Anita Graser**

- Status changed from Feedback to Open
- Subject changed from Opening project crashes 2.14.2 but works in qgis-rel-dev to "Discourage labels from covering features" causes crashes
- Category changed from Project Loading/Saving to Labelling

**#28 - 2018-02-26 08:50 PM - Anita Graser**

- Affected QGIS version changed from 2.18.13 to 3.0.0

This issue is still live and kicking

<https://gis.stackexchange.com/questions/272783/qgis-3-00-crashes-while-qgis-2-99-worked-well>

**#29 - 2018-02-26 08:59 PM - Anita Graser**

- Related to Bug report #18235: QGIS 3.00 standalone 64 bit installer running on win 10 pro 64 bit crashes when opening global-connections project from the book Qgis map design by grasser& petersen added

**#30 - 2018-04-19 10:19 PM - Nyall Dawson**

- Subject changed from "Discourage labels from covering features" causes crashes to GEOS exceptions crash QGIS on windows

**#31 - 2018-05-29 09:03 PM - Nyall Dawson**

- Status changed from Open to Feedback

Please test latest 3.2 master

**#32 - 2018-06-04 06:44 PM - Anita Graser**

Master currently doesn't crash but - considering the history of this bug - I'll only believe that it's gone when the 3.2 release opens the project without issues.

**#33 - 2018-07-22 11:26 PM - Anita Graser**

- *Status changed from Feedback to Closed*

- *Resolution set to fixed/implemented*

Looks like the 3.2 release is ok and does not crash. Thanks!

**Files**

|   |         |            |              |
|---|---------|------------|--------------|
| crashproject.zip                            | 4.03 MB | 2016-05-01 | Anita Graser |
| qgis-20160501-162647-4308-8588-f5763f0.zip  | 4.19 MB | 2016-05-01 | Anita Graser |
| bugminidump.zip                             | 4.15 MB | 2016-08-01 | Anita Graser |
| geos_error.png                              | 252 KB  | 2017-05-28 | Anita Graser |
| qgis-20170528-201313-2640-11424-a916bf4.zip | 3.25 MB | 2017-05-28 | Anita Graser |