Description

I was testing a project I have and qgis (master) froze. strace shows it hanging in: futex(0x45b791c, FUTEX_WAIT_PRIVATE, 1, NULL

gdb shows this backtrace:

```
(gdb) bt
#0  pthread_cond_wait@GLIBC_2.3.2 () at ../nptl/sysdeps/unix/sysv/linux/x86_64/pthread_cond_wait.S:185
#1  0x00007fc6914ae816 in QWaitCondition::wait(QMutex*, unsigned long) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#2  0x00007fc69149b8e4 in QFutureInterfaceBase::waitForFinished() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#3  0x00007fc692b60daf in QgsMapRendererParallelJob::cancel (this=0x522b360) at /usr/src/qgis/qgis/src/core/qgsmaprendererparalleljob.cpp:92
#4  0x00007fc692224ef9 in QgsMapCanvas::stopRendering (this=0x1f3c3c0) at /usr/src/qgis/qgis/src/gui/qgsmapcanvas.cpp:770
#5  0x00007fc692223c2f in QgsMapCanvas::refreshMap (this=0x1f3c3c0) at /usr/src/qgis/qgis/src/gui/qgsmapcanvas.cpp:649
#6  0x00007fc6922b4b14 in QgsMapCanvas::qt_static_metacall (_o=0x1f3c3c0, _c=QMetaObject::InvokeMetaMethod, _id=40, 
_a=0x7fff919dca60)
   at /usr/src/qgis/build/src/gui/moc_qgsmapcanvas.cxx:166
#7  0x00007fc6915487a in QMetaObject::activate(QObject*, QMetaObject const*, int, void**) () from 
/usr/lib/x86_64-linux-gnu/libQtCore.so.4
#8  0x00007fc6915cd70a in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#9  0x00007fc69151c05a in QMutex::QMutex (this=0x45c7b80) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#10 0x00007fc69150997d in QMetaObject::activate (this=0x1f3c3c0, ___a=0x7fff919d97c0, ___c=QMetaObject::InvokeMetaMethod, 
_id=40, ___a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#11 0x00007fc6909e0a10 in QCoreApplication::notifyInternal(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#12 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#13 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#14 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#15 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#16 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#17 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#18 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#19 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#20 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#21 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#22 0x00007fc6909e0a10 in QCoreApplication::notifyPrivate (this=0x7fff919d97c0, _receiver=0x45c7b80, _event=0x7fff919d97c0, 
_id=40, _a=0x7fff919d97c0) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
```

QGIS Application - Bug report #12228
deadlock from parallel rendering
2015-02-19 02:29 AM - Sandro Santilli

Status: Closed
Priority: High
Assignee: Sandro Santilli
Category: Symbology
Affected QGIS version: 2.8.3
Operating System: 
Pull Request or Patch supplied: 
Crashes QGIS or corrupts data: Yes

_regression?: No
_Easy fix?: No
_Resolution: fixed/implemented
_Copied to github as #: 20416
All I did to trigger it was changing visibility of a couple of layers and navigate. I'm tagging it as "Causes crash or corruption" as you can't exit from a deadlock w/out killing the process.

**History**

**#1** - 2015-02-19 04:32 AM - Martin Dobias

What about the worker threads - what were they waiting for?

**#2** - 2015-02-19 04:51 AM - Jürgen Fischer

Martin Dobias wrote:

> What about the worker threads - what were they waiting for?

Good question :)

<strk> master branch
<strk> Process 10380 attached
<strk> futex(0x45b791c, FUTEX_WAIT_PRIVATE, 1, NULL
<strk> ^^^ that's coming from strace, it's stuck there, deadlock!
<jef> strk: where?
<jef> jef: #12228
<sigq> Title: QGIS Application - Bug report #12228: deadlock from parallel rendering - QGIS Issue Tracking (at hub.qgis.org)
<jef> strk: and the other threads?
<jef> I killed the process now
<jef> jef: but nothing was coming out from strace, so I guess all were quiet
<jef> helgrind tool of valgrind might help

**#3** - 2015-02-19 04:57 AM - Jürgen Fischer

BTW thread apply all bt in gdb produces backtraces for all threads.

**#4** - 2015-02-19 04:59 AM - Jürgen Fischer

- Tag set to mtr

**#5** - 2015-05-10 01:03 AM - Giovanni Manghi

- Target version changed from Version 2.8 to Version 2.8.2

**#6** - 2015-05-14 03:02 AM - Giovanni Manghi

- Target version changed from Version 2.8.2 to Version 2.10

**#7** - 2015-05-27 11:33 PM - Andreas Neumann
Strk - what are the data sources? Postgis, perhaps?

I have similar issues with Postgis connections and MTR if my number of cores for rendering goes beyond 2-3. If I limit the nr of cores to 2, the problem disappears.

I would really like to see a fix for this. I have not created a bug report, because it was very hard to reproduce and apparently shows up on my Windows version more often than on Linux. But that is perhaps because on Linux my Postgis connections are local, whereas on Windows the connections are remote.

#8 - 2015-05-28 12:59 AM - Giovanni Manghi
- Target version changed from Version 2.10 to Future Release - High Priority

Hi Andreas,

I would really like to see a fix for this. I have not created a bug report, because it was very hard to reproduce and apparently shows up on my Windows version more often than on Linux. But that is perhaps because on Linux my Postgis connections are local, whereas on Windows the connections are remote.

it seems there are different tickets with issues apparently caused by mtr, them main seems to be this #11141

#9 - 2015-05-28 02:27 AM - Sandro Santilli

I don't remember what the datasource was. Yes, debugging threading issues is an hell (thus the name of the valgrind tool, I guess)

#10 - 2015-05-28 03:14 AM - Jürgen Fischer
- Status changed from Open to Feedback

not reproduceable

#11 - 2015-06-14 01:46 AM - Giovanni Manghi
- Status changed from Feedback to Closed
- Resolution set to not reproducable

closing for lack of feedback.

#12 - 2015-07-31 03:19 AM - Sandro Santilli
- Status changed from Closed to Reopened
- Resolution deleted (not reproducable)

I've just reproduced this, in 2.8.3 (lacking an entry in the "Affected version" pull-down menu).
What I did:
1) Load the POSTGIS_SRC/topology/test/invalidTopology.sql script into a topology-enabled PostgreSQL database
2) Load the "invalid_topology" schema in qgis via DBManager (select the schema, pick Topology Viewer from the "schema" menu)
What I got: a blocked GUI

The backtrace:

```
(gdb) bt
#0  pthread_cond_wait@@GLIBC_2.3.2 () at ../nptl/sysdeps/unix/sysv/linux/x86_64/pthread_cond_wait.S:185
#1  0x00007f8953cc816 in QWaitCondition::wait(QUntedMutex*, unsigned long) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#2  0x00007f8953b96e4 in QFutureInterfaceBase::waitForFinished() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#3  0x00007f8955668a21 in QgsMapRendererParallelJob::cancel (this=0x57c2ba0) at /usr/src/qgis/qgis-2.8/src/core/qgsmaprendererparalleljob.cpp:92
#4  0x00007f8954d4d46219 in QgsMapCanvas::stopRendering (this=0x26c7680) at /usr/src/qgis/qgis-2.8/src/gui/qgsmapcanvas.cpp:778
#5  0x00007f8954d4d5012 in QgsMapCanvas::refreshMap (this=0x26c7680) at /usr/src/qgis/qgis-2.8/src/gui/qgsmapcanvas.cpp:657
```

Thread apply all bt, as suggested by Jurgen:

```
(gdb) thread apply all bt
Thread 13 (Thread 0x7f89394ee700 (LWP 24245)):
  #0  0x00007f8950fdf12d in poll () at ../sysdeps/unix/syscall-template.S:81
  #1  0x00007f894ed81fe4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #2  0x00007f894ed82129 in ?? () from /lib/x86_64-linux-gnu/libgio-2.0.so.0
  #3  0x00007f894eda6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #4  0x00007f8954d4d47d in clone () at ../sysdeps/unix/sysv/linux/x86_64/clone.S:111
Thread 12 (Thread 0x7f893938ced00 (LWP 24246)):
  #0  0x00007f8950fdf12d in poll () at ../sysdeps/unix/syscall-template.S:81
  #1  0x00007f894ed81fe4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #2  0x00007f894eda6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #4  0x00007f8954d4d47d in clone () at ../sysdeps/unix/sysv/linux/x86_64/clone.S:111
Thread 11 (Thread 0x7f8933fff700 (LWP 24253)):
  #0  0x00007f8950fdf12d in poll () at ../sysdeps/unix/syscall-template.S:81
  #1  0x00007f894ed81fe4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #2  0x00007f894eda6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
  #4  0x00007f8954d4d47d in clone () at ../sysdeps/unix/sysv/linux/x86_64/clone.S:111
Thread 10 (Thread 0x7f8925296700 (LWP 24254)):
  #0  0x00007f8950fdf12d in poll () at ../sysdeps/unix/syscall-template.S:81
  #1  0x00007f8950fd0ee6 in ?? () from /usr/lib/x86_64-linux-gnu/libQtWebKit.so.4
  #2  0x00007f8950fd0f0d in ?? () from /usr/lib/x86_64-linux-gnu/libQtWebKit.so.4
  #3  0x00007f8950fd0e5f in ?? () from /usr/lib/x86_64-linux-gnu/libQtWebKit.so.4
  #4  0x00007f8950fd0f0d in ?? () from /usr/lib/x86_64-linux-gnu/libQtWebKit.so.4
Thread 9 (Thread 0x7f8933fff700 (LWP 24256)):
  #0  0x00007f8950fd12d in poll () at ../sysdeps/unix/syscall-template.S:81
```

#13 - 2015-07-31 03:23 AM - Sandro Santilli

wioth thread apply all bt

, as suggested by Jurgen:
Thread 1 (Thread 0x7f8595d00800 (LWP 242444)):

#0  pthread_cond_wait@GLIBC_2.3.2 () at /usr/lib/x86_64-linux-gnu/libpthread.so.0
#1  0x0000000000000000 in operator new(unsigned long) () from /usr/lib/x86_64-linux-gnu/libc.so.6
#2  0x0000000000000000 in operator delete(void*) () from /usr/lib/x86_64-linux-gnu/libc.so.6
#3  0x0000000000000000 in operator delete(void*) () from /usr/lib/x86_64-linux-gnu/libc.so.6
#4  0x0000000000000000 in pthread_exit() from /usr/lib/x86_64-linux-gnu/libpthread.so.0
#5  0x0000000000000000 in _exit() from /lib/x86_64-linux-gnu/libc.so.6
#6  0x0000000000000000 in raise() from /lib/x86_64-linux-gnu/libc.so.6

```
2021-02-26
10/11
```

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#14 - 2015-07-31 03:26 AM - Sandro Santilli
- Target version deleted (Future Release - High Priority)
- Affected QGIS version changed from 2.6.0 to 2.8.2

#15 - 2015-07-31 03:26 AM - Sandro Santilli

Could it be the lack of exception handling in Thread 2?

```
msg=0x7f88a402a718 "\"GEOS exception: IllegalArgumentException: point array must contain 0 or >1 elements\" \
"
```

#16 - 2015-07-31 05:48 AM - Sandro Santilli
- File invalid_topo.sql.gz added

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2021-02-26
I'm attaching a dump to reproduce this. I could reproduce it just fine with 2.8. Master doesn't seem to have the problem.

#17 - 2015-07-31 06:23 AM - Giovanni Manghi
- Affected QGIS version changed from 2.8.2 to 2.8.3

#18 - 2015-10-05 03:26 AM - Jürgen Fischer
- Category set to Symbology

#19 - 2016-06-09 03:17 AM - Sandro Santilli
- Status changed from Reopened to In Progress

I cannot reproduce with current master either (2.15 -- d1cac84). Given 2.14 is the new LTR I'll test that one and if fixed would close this bug.

#20 - 2016-06-09 03:47 AM - Sandro Santilli
- Target version set to Version 2.14
- Status changed from In Progress to Closed
- Resolution set to fixedimplemented

2.14.3 is not affected either, while I confirm 2.8.9 is. Given 2.14 is the new LTR, I'm closing this as fixed.

Files

invalid_topo.sql.gz 83.6 KB 2015-07-31 Sandro Santilli