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  0x000007cf6914ae816 in QWaitCondition::wait(QMutex*, unsigned long) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#2  0x000007cf69149b8e4 in QFutureInterfaceBase::waitForFinished() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#3  0x000007cf692b60daf in QgsMapRendererParallelJob::cancel (this=0x522b360) at /usr/src/qgis/qgis/src/core/qgsmaprendererparalleljob.cpp:92
#4  0x000007cf692224e9f in QgsMapCanvas::stopRendering (this=0x1f3c3c0) at /usr/src/qgis/qgis/src/gui/qgsmapcanvas.cpp:770
#5  0x000007cf692223c2f in QgsMapCanvas::refreshMap (this=0x1f3c3c0) at /usr/src/qgis/qgis/src/gui/qgsmapcanvas.cpp:649
#6  0x000007cf69222b414 in QgsMapCanvas::qt_static_metacall (_o=0x1f3c3c0, _c=QMetaObject::InvokeMethod, _id=40, _a=0x7fff919dca60)
at /usr/src/qgis/build/src/gui/moc_qgsmapcanvas.cxx:166
#7  0x000007cf6915487a in QMetaObject::activate(QObject*, QMetaObject const*, int, void**) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#8  0x000007cf6915cd7a0 in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#9  0x000007cf69158331 in Qobject::event(QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#10 0x000007cf6909ebe2c in QCoreApplication::notifyPrivate(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#11 0x000007cf690954a00 in QCoreApplication::notifyPrivate(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#12 0x000007cf692a5b5cb in QgsApplication::notify (this=0x7fff919d910, receiver=0x45c7b80, event=0x7fff919dced0)
at /usr/src/qgis/src/core/qgsapplication.cpp:252
#13 0x000007cf6915b04dd in QCOREApplicationPrivate::notifyInternal(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#14 0x000007cf6915e0323 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#15 0x000007cf6915dd5f1 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#16 0x000007cf68c26ae04 in g_main_context_dispatch () from /lib/x86_64-linux-gnu/glib-2.0.so.0
#17 0x000007cf68c26b048 in ?? () from /lib/x86_64-linux-gnu/glib-2.0.so.0
#18 0x000007cf68c26b00ec in g_main_context_iteration () from /lib/x86_64-linux-gnu/glib-2.0.so.0
#19 0x000007cf6915d7a1 in QEveEventDispatcherGlib::processEvents(QFlags<QEventLoop::ProcessEventsFlag>+) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#20 0x000007cf6909e666b in ?? () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#21 0x000007cf6915a0af in QEveEventLoop::processEvents(QFlags<QEventLoop::ProcessEventsFlag>+) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#22 0x000007cf6915a3a5 in QEveEventLoop::exec(QFlags<QEventLoop::ProcessEventsFlag>+) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
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.

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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!
<strk> strk: where?
<strk> jef: #12228
<strig> Title: QGIS Application - Bug report #12228: deadlock from parallel rendering - QGIS Issue Tracking (at hub.qgis.org)
<strk> jef: strk: and the other threads?
<strk> jef: I killed the process now
<strk> jef: but nothing was coming out from strace, so I guess all were quiet
<strk> 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 reproducible

closing for lack of feedback.

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

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/invalid_topology.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  0x000078953c816e in QWaitCondition::wait(QMutex*, unsigned long) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#2  0x000078953b8e4e in QFutureInterfaceBase::waitForFinished() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#3  0x0000789568a281 in QgsMapRendererParallelJob::cancel (this=0x57c2ba0) at /usr/src/qgis/qgis-2.8/src/core/qgsmaprendererparalleljob.cpp:92
#4  0x000078954d46219 in QgsMapCanvas::stopRendering (this=0x26c7680) at /usr/src/qgis/qgis-2.8/src/gui/qgsmapcanvas.cpp:778
#5  0x000078954d5012 in QgsMapCanvas::refreshMap (this=0x26c7680) at /usr/src/qgis/qgis-2.8/src/gui/qgsmapcanvas.cpp:657

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

wioth thread apply all bt
, as suggested by Jurgen:

(gdb) thread apply all bt

Thread 13 (Thread 0x7f89394ee700 (LWP 24245)):
#0 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#1 0x00007894ed81f4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#2 0x00007894ed823a0 in g_main_loop_run () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#3 0x000078940f1e3c6 in ?? () from /usr/lib/x86_64-linux-gnu/libgio-2.0.so.0
#4 0x00007894ed6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#5 0x00007894ed38128 in start_thread (arg=0x7f89394ee700) at pthread_create.c:312
#6 0x000078950fe47d in clone () at /sysdeps/unix/sysv/linux/x86_64/clone.S:111

Thread 12 (Thread 0x7f8938ced700 (LWP 24246)):
#0 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#1 0x00007894ed81f4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#2 0x00007894ed8219c in g_main_context_iteration () from /lib/x86_64-linux-gnu/libgio-2.0.so.0
#3 0x00007894ed6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#4 0x00007894ed38128 in start_thread (arg=0x7f8938ced700) at pthread_create.c:312
#6 0x000078950fe47d in clone () at /sysdeps/unix/sysv/linux/x86_64/clone.S:111

Thread 11 (Thread 0x7f8931333700 (LWP 24253)):
#0 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#1 0x00007894ed81f4 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#2 0x00007894ed820ec in g_main_context_iteration () from /lib/x86_64-linux-gnu/libgio-2.0.so.0
#3 0x00007894ed6f05 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#4 0x00007894ed38128 in start_thread (arg=0x7f8931333700) at pthread_create.c:312
#6 0x000078950fe47d in clone () at /sysdeps/unix/sysv/linux/x86_64/clone.S:111

Thread 10 (Thread 0x7f8925296700 (LWP 24254)):
#0 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#1 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#2 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#3 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
#4 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81

Thread 9 (Thread 0x7f8933ff700 (LWP 24256)):
#0 0x000078950fd12d in poll () at /sysdeps/unix/syscall-template.S:81
Thread 1 (Thread 0x7f8595000800 (LWP 242444)):
#0 pthread_cond_wait@GLIBC_2.3.2 () at /usr/lib/x86_64-linux-gnu/libpthread.so.0:185
#1 0x0000789530c3c816 in QWaitCondition::wait(QMutex*, unsigned long) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#2 0x0000789530b9e4 in QFutureInterfaceBase::waitForFinished() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#3 0x0000789556ba281 in QgsMapRendererParallelJob::cancel (this=0x57c2ba0) at /usr/src/qgis-2.8/src/core/qgsmapperendererparalleljob.cpp:92
#4 0x000078954d46219 in QgsMapCanvas::stopRendering (this=0x26c7680) at /usr/src/qgis-2.8/src/gui/qgsmapcanvas.cpp:778
#5 0x000078954d450412 in QgsMapCanvas::refreshMap (this=0x26c7680) at /usr/src/qgis-2.8/src/gui/qgsmapcanvas.cpp:657
#6 0x000078954d4d86df in QgsMapCanvas::qt_static_metacall (_o=0x26c7680, _c=QMetaObject::InvokeMetaMethod, _id=41, _a=0x7fff26747150) at /usr/src/qgis/build/2.8/src/gui/moc_qgsmapcanvas.cxx:168
#7 0x000078954e84e28a7 in QMetaObject::activate(QObject*, QMetaObject const*, int, void**) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#8 0x000078954e84e07a0 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#9 0x000078954e84e6a31 in O(QObject::event(QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtGui.so.4
#10 0x000078954e84e6a2e2c in QApplicationPrivate::notify_helper(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQGui.so.4
#11 0x000078954e84e6a40 in QApplication::notify(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQGui.so.4
#12 0x00007895555b216d in QgsApplication::notify (this=0x7fff26748000, receiver=0x5842910, event=0x7fff267475c0) at /usr/src/qgis-2.8/src/core/qgsapplication.cpp:252
#13 0x000078954e84e04ed4d in QCoreApplication::notifyInternal(QObject*, QEvent*) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#14 0x000078954e84e04e233 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#15 0x000078954e84e0b629 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#16 0x000078954e84e0d81e04 in g_main_context_dispatch () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#17 0x000078954e84e0d82048 in ?? () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#18 0x000078954e84e0d820ec in g_main_context_iterate () from /lib/x86_64-linux-gnu/libglib-2.0.so.0
#19 0x000078954e84e0f7a1 in QEventDispatcherGlib::processEvents(QFlags<QEventLoop::ProcessEventsFlag>) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#20 0x000078954e84e0f7b6e6 in ?? () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#21 0x000078954e84e0f7c0af in QEventLoop::processEvents(QFlags<QEventLoop::ProcessEventsFlag>) () from /usr/lib/x86_64-linux-gnu/libQGui.so.4
#22 0x000078954e84e0f7d3a5 in QEventLoop::exec(QFlags<QEventLoop::ProcessEventsFlag>) () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#23 0x000078954e84e0f7d2b79 in QCoreApplication::exec() () from /usr/lib/x86_64-linux-gnu/libQtCore.so.4
#24 0x00000000005834db in main (argc=1, argv=0x7fff26748308) at /usr/src/qgis-2.8/src/app/main.cpp:1047

#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
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 fixed/implemented

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

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<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Username</th>
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<tr>
<td>invalid_topo.sql.gz</td>
<td>83.6 KB</td>
<td>2015-07-31</td>
<td>Sandro Santilli</td>
</tr>
</tbody>
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