**Crash when loading project with custom renderer for vector layers**

2015-12-22 06:26 AM - Alexander Bruy

<table>
<thead>
<tr>
<th>Status</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>High</td>
</tr>
<tr>
<td>Assignee</td>
<td>Martin Dobias</td>
</tr>
<tr>
<td>Category</td>
<td>Python plugins</td>
</tr>
<tr>
<td>Affected QGIS version</td>
<td>master</td>
</tr>
<tr>
<td>Operating System</td>
<td>all</td>
</tr>
<tr>
<td>Pull Request or Patch supplied</td>
<td>No</td>
</tr>
<tr>
<td>Crashes QGIS or corrupts data</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Description**

I have custom renderer for vector layers, and can save project including information about this custom renderer. But when I try to open saved project QGIS crashes. Here is backtrace

```
#0  0x0000000000000000 in ?? ()
#1  0x00007fff5242d2d2 in QgsSymbolV2::mapUnitScale (this=0x7fff5c019040) at /home/alex/devel/cpp/qgis/src/core/symbology-ng/qgssymbolv2.cpp:274
#2  0x00007fff52cbe818 in QgsMarkerSymbolV2::renderPoint (this=0x7fff5c019040, point=..., f=0x7fff63dfdeb0, context=..., layerId=-1, selected=false) at /home/alex/devel/cpp/qgis/src/core/symbology-ng/qgssymbolv2.cpp:1251
#3  0x00007fff52c929b0 in QgsSymbolV2::renderFeature (this=0x7fff5c019040, feature=..., context=..., layer=-1, selected=false, drawVertexMarker=false, currentVertexMarkerType=1, currentVertexMarkerSize=3) at /home/alex/devel/cpp/qgis/src/core/symbology-ng/qgssymbolv2.cpp:718
#4  0x00007fff52a362d2 in QgsFeatureRendererV2::renderFeatureWithSymbol (this=0xa8bbf0, feature=..., symbol=0x7fff5c019040, context=..., layer=-1, selected=false, drawVertexMarker=false) at /home/alex/devel/cpp/qgis/src/core/symbology-ng/qgsrendererv2.cpp:283
#5  0x00007fff52a359b8 in QgsFeatureRendererV2::renderFeature (this=0xa8bbf0, feature=..., context=..., layer=-1, selected=false, drawVertexMarker=false) at /home/alex/devel/cpp/qgis/src/core/qgsrendererv2.cpp:277
#6  0x00007fff70e27b74e in sipQgsFeatureRendererV2::renderFeature (this=0xa8bbf0, a0=..., a1=..., a2=-1, a3=false, a4=false) at /home/alex/devel/cpp/qgis/build/python/core/sip_corepart1.cpp:37671
#7  0x00007fff52a9119b in QgsVectorLayerRenderer::drawRendererV2 (this=0x2fd9780, fit=...) at /home/alex/devel/cpp/qgis/src/core/qgsvectorlayerrenderer.cpp:312
#8  0x00007fff52b89a8 in QgsVectorLayerRenderer::render (this=0x2fd9780) at /home/alex/devel/cpp/qgis/src/core/qgsvectorlayerrenderer.cpp:249
#9  0x00007fff52f70304c in QgsMapRendererCustomPainterJob::doRender (this=0x13e6b0) at /home/alex/devel/cpp/qgis/src/core/qgsmaprenderercustompainterjob.cpp:251
#10 0x00007fff52f702d81 in QgsMapRendererCustomPainterJob::staticRender (self=0x13e6b0) at /home/alex/devel/cpp/qgis/src/core/qgsmaprenderercustompainterjob.cpp:214
#11 0x00007fff52f705aeb in QtConcurrent::StoredFunctionCall1<void, void (*)> (QgsMapRendererCustomPainterJob*) at /home/alex/devel/cpp/qgis/src/core/qgsmaprenderercustompainterjob.cpp:214
#12 0x00007fff52f7035a in QtConcurrent::RunFunctionTask<void>() (this=0x2fd7320) at /usr/include/qt4/QtCore/qlatreachuba quietc.h:277
#13 0x00007fff4b3d80 in QThreadPool::run (this=0x346cea0) at concurrent/qthreadpool.cpp:108
#14 0x00007fff4b67f01 in QThreadPoolPrivate:start (arg=0x346cea0) at thread/qthread_unix.cpp:349
#15 0x00007ffedd600a0 in start_thread (arg=0x7fff63df700) at pthread_create.c:309
#16 0x00007ffe40204d in clone () at /sysdeps/unix/sysv/linux/x86_64/clone.S:111
```

2021-05-29 1/2
Test plugin with custom renderer for point layers attached.

Seems there are some issues with interaction between Python bindings and C++ core code.

**Related issues:**
Related to QGIS Application - Bug report # 13973: Crash when switching from c... Closed 2015-12-10

**Associated revisions**
Revision 03eed110 - 2016-01-25 06:16 PM - Martin Dobias

Improve renderer class documentation (refs #14025)

**History**

#1 - 2015-12-22 07:03 AM - Alessandro Pasotti
- Assignee set to Martin Dobias

Not sure, but this could be the problem:

src/core/symbology-ng/qgssinglesymbolrendererv2.cpp:458

```
QgsSymbolV2List symbols = const_cast<QgsFeatureRendererV2 *>( renderer )->symbols( context );
```

the about to be cloned object is a sip object.

#2 - 2016-01-25 08:28 AM - Martin Dobias
- Resolution set to invalid
- Status changed from Open to Closed
- File mytestrenderer.py added

The real issue was that symbols returned by the test renderer have not been initialized before being used in symbolForFeature().

Attached (fixed and simplified) version works fine for me - closing as invalid. I have some ideas how the situation could be improved in QGIS 3 so that custom renderer implementations are less crash-prone...

**Files**

<table>
<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>renderertest.tar.bz2</td>
<td>4.12 KB</td>
<td>2015-12-22</td>
<td>Alexander Bruy</td>
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<tr>
<td>mytestrenderer.py</td>
<td>3.22 KB</td>
<td>2016-01-25</td>
<td>Martin Dobias</td>
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