QGIS Application - Bug report #19760
Raster calculator crashes QGIS 3

2018-09-03 07:29 PM - Mr Smith

Status:	Closed		
Priority:	High		
Assignee:	Alessandro Pasotti		
Category:	Raster Calculator		
Affected QGIS version:	3.2.2	**Regression?:**	No
Operating System:	Win10	**Easy fix?:**	No
Pull Request or Patch supplied:	No	**Resolution:**	
Crashes QGIS or corrupts data:	Yes	**Copied to github as #:**	27585

Description

I am trying to use the raster calculator and QGIS crashes when I compute a simple raster subtraction. These files are in the same coordinate system, same processing area, same scale, etc. They are a little over 400MB each, but my machine can handle this little processing. Any ideas? Below is the bug report.

Thanks!

User Feedback

Report Details

Crash ID: 82ea1fdd86be5198d4c4b5e19a77c8b580ba2ec7

Stack Trace

memcpy :
GDALRasterBand::IRasterIO :
GDALRegister_GTiff :
GDALRasterBand::RasterIO :
GDALWarpOperation::operator= :
GDALWarpOperation::operator= :
QgsRasterCalculator::processCalculation :
QgisApp::showRasterCalculator :
QMetaObject::activate :
QAction::activate :
QMenu::actionGeometry :
QMenu::actionGeometry :
QMenu::mouseReleaseEvent :
QWidget::event :
QMenu::event :
QApplicationPrivate::notify_helper :
QApplication::notify :
QgsApplication::notify :
QCoreApplication::notifyInternal2 :
QApplicationPrivate::sendMouseEvent :
QSizePolicy::QSizePolicy :
QSizePolicy::QSizePolicy :
QApplicationPrivate::notify_helper :
QApplication::notify :
QgsApplication::notify :
QCoreApplication::notifyInternal2 :
QGuiApplicationPrivate::processMouseEvent :
QWindowSystemInterface::sendWindowSystemEvents :
QEventDispatcherWin32::processEvents :
CallWindowProcW :
DispatchMessageW :
QEventDispatcherWin32::processEvents :
qt_plugin_query_metadata :

QEventLoop::exec :
QCoreApplication::exec :
main :
BaseThreadInitThunk :
RtlUserThreadStart :

QGIS Info
QGIS Version: 3.2.2-Bonn
QGIS code revision: commit:26842169e9
Compiled against Qt: 5.9.2
Running against Qt: 5.9.2
Compiled against GDAL: 2.2.4
Running against GDAL: 2.2.4

System Info
CPU Type: x86_64
Kernel Type: winnt
Kernel Version: 10.0.17134

Associated revisions

Revision da5a1713 - 2018-11-26 03:54 PM - Alessandro Pasotti

[gdal] Fix an int overflow issue with raster block read

Fixes #19760 - Raster calculator crashes QGIS 3

.. and probably more, but this is one of the greediest
piece of code because it reads the whole raster to memory.

Revision e2a2aecc - 2018-11-28 08:11 AM - Alessandro Pasotti

Merge pull request #8550 from elpaso/bugfix-20583-19760-raster-calculator

Raster calculator crash and hang fixes. Fixes #20583 #19760

Revision ae03a81b - 2018-12-05 09:32 AM - Alessandro Pasotti

[gdal] Fix an int overflow issue with raster block read

Fixes #19760 - Raster calculator crashes QGIS 3

.. and probably more, but this is one of the greediest
piece of code because it reads the whole raster to memory.

cherry-picking commit da5a171

History

#1 - 2018-09-03 08:45 PM - Giovanni Manghi

- Status changed from Open to Feedback

- Priority changed from Normal to High

Can you share the datasets? and to be clear, is the native QGIS raster calculator (now in the Processing toolbox) or else (i.e. the GDAL one)?

#2 - 2018-09-16 03:01 PM - Alessandro Pasotti

I might be wrong but from the stacktrace it looks like a memory allocation error in memcpy, are you sure you are not running out of RAM?

#3 - 2018-09-17 09:09 AM - Giovanni Manghi

Alessandro Pasotti wrote:

> *I might be wrong but from the stacktrace it looks like a memory allocation error in memcpy, are you sure you are not running out of RAM?*

the "old" raster calculator (2.* implementation, not in processing) was known to eat all memory with large rasters, probably is the same issue.

#4 - 2018-11-08 01:31 PM - Giovanni Manghi

Please try on QGIS 3.4.1, if the issue is still valid change the affected version, thanks.

#5 - 2018-11-26 03:25 PM - Alessandro Pasotti

- Assignee set to Alessandro Pasotti

#6 - 2018-11-26 03:26 PM - Alessandro Pasotti

- Status changed from Feedback to In Progress

I can confirm that memcpy is to blame and a int type overflow is probably the root of the problem.

#7 - 2018-11-28 08:10 AM - Anonymous

- Status changed from In Progress to Closed
- % Done changed from 0 to 100

Applied in changeset commit:qgis|da5a171377681747a23b0daf4776532cf69c3950.

#8 - 2018-11-28 08:35 AM - Giovanni Manghi

Thanks Alessandro for tackling this, it was MUCH needed.