

QGIS Application - Bug report #12573

QGIS console: 'saga:rastercalc' giving bogus values compared to other algorithms

2015-04-14 01:05 AM - paolo prosperi

Status:	Closed	
Priority:	Normal	
Assignee:		
Category:	Processing/SAGA	
Affected QGIS version:	2.8.1	Regression?: No
Operating System:		Easy fix?: No
Pull Request or Patch supplied:	No	Resolution: up/downstream
Crashes QGIS or corrupts data:	No	Copied to github as #: 20701
Description		
<p>A note the issue reported under #12450, but mine seems different.</p> <p>From QGIS python console, saga:rastercalculator gives bogus values compared to QGIS GUI raster calculator(same input rasters and formulas, obviously).</p> <pre>out = processing.runalg('saga:rastercalculator',A,[B,C],'a*b/c','false',8,None)</pre> <p>Just a double check, I changed algorithm:</p> <pre>out = processing.runalg('grass:r.mapcalculator',A,B,C,None,None,None,'A*B/C','-180,180,-90,90',0.5,None)</pre> <p>and got the very same results as in the QGIS GUI raster calculator.</p> <p>I'm on Windows (tried both 7 and 8.1) with QGIS 2.8.1 Wien (from OSGeo4W).</p> <p>I'm attaching the input rasters.</p>		

History

#1 - 2015-04-14 03:08 AM - Giovanni Manghi

- Status changed from Open to Feedback
- Category set to Processing/SAGA

If is SAGA that makes the wrong calculations then qgis/processing cannot do anything about it. Can you test run the same operation using the SAGA command line/gui? Thanks.

#2 - 2015-04-14 06:45 AM - paolo prosperi

- File out_QGISSAGA.tif added
- File out_SAGAGUI.tif added
- File out_QGISGUI.tif added
- File out_QGISGRASS.tif added

I am indeed having the same strange results from SAGA GUI (Grid Calculus command) as I did earlier from saga:rastercalculator in QGIS console. I don't know how to do the same with SAGA command line, sorry.

I am attaching all the results from the different algorithms used.

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#3 - 2015-04-15 03:30 AM - Giovanni Manghi

- Resolution set to up/downstream

- Status changed from Feedback to Closed

paolo prosperi wrote:

I am indeed having the same strange results from SAGA GUI (Grid Calculus command) as I did earlier from saga:rastercalculator in QGIS console.

I don't know how to do the same with SAGA command line, sorry.

I am attaching all the results from the different algorithms used.

SAGA gui or cli does not make difference, but if this is a SAGA issue than we cannot do anything in QGIS/Processing.

#4 - 2015-04-16 12:09 AM - paolo prosperi

Following Giovanni's response, I filed a bug in the SAGA system and, very surprisingly, this is the outcome from Olaf Conrad (<http://sourceforge.net/p/saga-gis/bugs/204/>):

"This is not a bug but a feature. If using grids with different grid systems, values are interpolated automatically with a spline function to meet the target grid system.

For convenience I just added an option that allows you to choose another interpolation type. Now you can choose 'nearest neighbour', if you want to reproduce the exact grass map calculator results. Alternatively resample your grids to one single grid system without interpolation (i.e. nearest neighbour) and use these with SAGA's grid calculator. Thank you for pointing at this inflexibility."

Good to know for anyone working with saga:rastercalculator tool in QGIS.

Files			
A.tif	1010 KB	2015-04-13	paolo prosperi
B.tif	86.6 KB	2015-04-13	paolo prosperi
C.tif	171 KB	2015-04-13	paolo prosperi
out_QGISGRASS.tif	59.1 KB	2015-04-14	paolo prosperi
out_QGISGUI.tif	1020 KB	2015-04-14	paolo prosperi
out_QGISSAGA.tif	1.98 MB	2015-04-14	paolo prosperi
out_SAGAGUI.tif	1.98 MB	2015-04-14	paolo prosperi