

QGIS Application - Bug report #14082

area calculation in Field Calculator is depending on Output field type

2016-01-10 10:44 AM - Richard Duivenvoorde

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|---|-------------------------------------|
| Status: Closed | |
| Priority: Normal | |
| Assignee: | |
| Category: Vectors | |
| Affected QGIS version: master | Regression?: No |
| Operating System: | Easy fix?: No |
| Pull Request or Patch supplied: | Resolution: end of life |
| Crashes QGIS or corrupts data: | Copied to github as #: 22092 |
| Description | |
| Not sure how much this is related to #13209 | |
| But when I use the Field calculator to create a virtual field with the area of some polygons, my first try resulted in 80% NULL values. On further testing the results seem ok. Only difference I did was changing the Output field type from Whole number (integer) to Decimal number (real) | |
| To test, (see screendump for output with both options) | |
| <ul style="list-style-type: none">- open attached shp file with the 12 provinces of The Netherlands- set project crs to epsg:28992 + OTF, and data crs is also epsg:28992 (Amersfoort)- now open the Field calculator and create a new field / create virtual field and call it 'area'- as Expression use \$area- click OK: as you can see only 3 polygons have an area value, rest has NULL- now open the Field calculator again and create a new field / create virtual field and call it 'area2'- BUT change the default output fieldtype to Decimal !!- as Expression use \$area- click OK: now all provinces have an area value! | |
| ?? what goes wrong here. Or at least how should a normal user find out this behaviour? | |
| Maybe after fixing, also change the default value of output to Real/Float? | |
| Related issues: | |
| Related to QGIS Application - Bug report # 13209: area not calculated correct... | Closed 2015-08-11 |
| Related to QGIS Application - Bug report # 12622: In virtual fields \$area fun... | Closed 2015-04-21 |

History

#1 - 2016-01-11 07:18 AM - Richard Duivenvoorde

Update: I found out that it is apparently a integer overflow problem. That is, only the 3 smallest provinces have a value...

And if I change the expression to $\$area/(1000*1000)$ (so from meters to square km), all give a valid result EVEN when I set the output type to integers. Of course because then the values are smaller.

But I also checked the error messages, but did not see anything.

Proposal:

- give a clear/descent error message when a integer overflow takes place during calculation (popup?)
- make floats the default when you create an expression (or text), so this problem does not occur for innocent users like me :-)

#2 - 2016-01-12 11:24 AM - Giovanni Manghi

- Status changed from Open to Feedback

Hi Richard,

related also to #12622 ?

#3 - 2016-05-23 09:05 AM - Giovanni Manghi

- Status changed from Feedback to Open

- Category changed from Virtual Fields to Vectors

It is still true on the latest master and from what I see is not only related to virtual fields.

#4 - 2017-05-01 01:06 AM - Giovanni Manghi

- Easy fix? set to No

- Regression? set to No

#5 - 2019-03-09 04:09 PM - Giovanni Manghi

- Resolution set to end of life

- Status changed from Open to Closed

End of life notice: QGIS 2.18 LTR

Source:

<http://blog.qgis.org/2019/03/09/end-of-life-notice-qgis-2-18-ltr/>

Files

| | | | |
|-----------------------|---------|------------|----------------------|
| area_calculations.png | 208 KB | 2016-01-10 | Richard Duivenvoorde |
| qgisprov.zip | 63.6 KB | 2016-01-10 | Richard Duivenvoorde |