QGIS Application - Bug report #4567
Ftools - Union returns Wrong Table of Attributes

2011-11-25 01:51 AM - Enrico Fiore

Status:	Closed			
Priority:	Normal			
Assignee:				
Category:	Processing/QGIS			
Affected QGIS version:	master	**Regression?:**		
Operating System:		**Easy fix?:**		
Pull Request or Patch supplied:		**Resolution:**	duplicate	
Crashes QGIS or corrupts data:		**Copied to github as #:**	14479	

Description

Makig Union there is error in table attributes values aren't allocated correctly. Show attached files to understand the error.

Correlate at this error making multiple union there is loss of polygons create in precedent union so some intersections get lost

Related issues:

Related to QGIS Application - Bug report # 7708: Union produces the wrong out...	**Closed**	**2013-04-25**

Associated revisions

Revision 0498c955 - 2012-01-11 01:51 PM - Victor Axbom

Fix Union tool to produce correct attribute table (fix #4567)

Revision d6b15196 - 2012-01-11 02:01 PM - Victor Axbom

Fix Union tool to produce correct attribute table (fix #4567)

History

#1 - 2011-11-29 07:20 PM - Giovanni Manghi

- Assignee set to cfarmer -

- Operating System deleted (Windows 7)

Confirmed also on linux.

#2 - 2011-11-29 08:04 PM - Giovanni Manghi

A sample dataset can be found here

http://geo.regione.emilia-romagna.it/gstatico/documenti/qgis/colli_bolognesi.zip

inside the archive you can find a shape "union_A_B_corretto" that shows the correct result produced with the old "geoprocessing" plugin, no more available in the repos.

Resuming:

if you have two polygons partially overlapping, with the following attributes

ID Name
1 one

and

ID Name
2 two

in the union A+B you should expect

ID_a Name_a ID_b Name_b
1 one   2 two
1 one   0 0
0 0   2 two

(or NULLs instead of "0")

instead you get

ID_a Name_a ID_b Name_b
1 one   2   two
1 one   NULL NULL
1 one   NULL NULL

#3 - 2011-11-30 12:48 AM - Giovanni Manghi

- Subject changed from Ftools - Union Table error to Ftools - Union returns Wrong Table of Attributes

#4 - 2011-11-30 12:40 PM - Giovanni Manghi

- Target version changed from Version 1.7.2 to Version 1.7.3

#5 - 2011-12-16 10:55 AM - Giovanni Manghi

- Target version changed from Version 1.7.3 to Version 1.7.4

#6 - 2011-12-23 09:45 AM - Paolo Cavallini

- Crashes QGIS or corrupts data set to No

- Priority changed from 6 to Normal

- Affected QGIS version set to master

#7 - 2011-12-23 09:54 AM - Giovanni Manghi

I would prefer to have a higher priority for this... the result of the operation is wrong, not acceptable from the user point of view.

#8 - 2012-01-03 10:28 PM - Victor Axbom

Hi

This was a really annoying bug so I took a look at it and I might have found the solution. By changing "atMapB" to "atMap" at line 1170 in doGeoprocessing.py, the bug should be fixed. Line 1157 can then be removed. I hope someone with the knowledge howto patch this into master can proceed with it

#9 - 2012-01-03 10:41 PM - Victor Axbom

Sorry, line 1237 is the correct

Vic - wrote:

> *Hi*
>
> *This was a really annoying bug so I took a look at it and I might have found the solution. By changing "atMapB" to "atMap" at line 1170 in doGeoprocessing.py, the bug should be fixed. Line 1157 can then be removed. I hope someone with the knowledge howto patch this into master can proceed with it*

#10 - 2012-01-04 12:40 AM - Giovanni Manghi

Vic - wrote:

> *Sorry, line 1237 is the correct*
>
> *Vic - wrote:*
>
>> *Hi*
>>
>> *This was a really annoying bug so I took a look at it and I might have found the solution. By changing "atMapB" to "atMap" at line 1170 in doGeoprocessing.py, the bug should be fixed. Line 1157 can then be removed. I hope someone with the knowledge howto patch this into master can proceed with it*

Hi, thanks for looking into this issue.

Can you provide a patch? I find many "atMapB" references in doGeoprocessing.py but none at the lines you say. By the way I'm looking into qgis master (development) code.

#11 - 2012-01-04 02:39 AM - Victor Axbom

Thought this could be a good time to learn how github works so I made a fork on github and commit the changes. Is it just to make a pull request on the commit now?

Giovanni Manghi wrote:

> *Vic - wrote:*
>
> *Sorry, line 1237 is the correct*
>
> *Vic - wrote:*
>
>> *Hi*
>>
>> *This was a really annoying bug so I took a look at it and I might have found the solution. By changing "atMapB" to "atMap" at line 1170 in doGeoprocessing.py, the bug should be fixed. Line 1157 can then be removed. I hope someone with the knowledge howto patch this into master can proceed with it*
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> *Hi, thanks for looking into this issue.*
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> *Can you provide a patch? I find many "atMapB" references in doGeoprocessing.py but none at the lines you say. By the way I'm looking into qgis master (development) code.*

#12 - 2012-01-11 05:00 AM - Victor Axbom

- % Done changed from 0 to 100

- Status changed from Open to Closed

Fixed in changeset commit:"0498c955469effadc6691032b65d663821cf5bf1".

#13 - 2012-01-11 05:04 AM - Alexander Bruy

- Resolution set to fixed

Patch applied in commit:0498c95546

#14 - 2012-02-28 05:08 AM - Giovanni Manghi

- Resolution deleted (fixed)

- Status changed from Closed to Reopened

#15 - 2012-02-28 07:28 AM - alobo -

- File vectorstest.zip added

I get an empty table using 1.7.4 under ubuntu 10.04 (from ubuntugis-unstable binaries).
See attached files.

#16 - 2012-03-20 07:14 AM - Alexandre Neto

- File Union_test_data.zip added

Is there any news about this problem?

I'm trying Union both in 1.7.4 and 1.9.90-Alpha QGIS code revision
f3b78ef, in a Windows XP computer.

Union is not working correctly, it unions the geometries but looses
some attributes in the process.

See the attached files. Has you can see in the union5.shp attributes the polygon2 remaining (the part that doesn't intersect the other) have incorrect
attributes.

#17 - 2012-03-20 07:16 AM - Giovanni Manghi

Can you please detail what should be the expected result with the attached sample data? thanks.

Alexandre Neto wrote:

Is there any news about this problem?

I'm trying Union both in 1.7.4 and 1.9.90-Alpha QGIS code revision
f3b78ef, in a Windows XP computer.

Union is not working correctly, it unions the geometries but looses
some attributes in the process.

See the attached files. Has you can see in the union5.shp attributes the polygon2 remaining (the part that doesn't intersect the other) have incorrect
attributes.

#18 - 2012-03-20 07:17 AM - Giovanni Manghi

Giovanni Manghi wrote:

> *Can you please detail what should be the expected result with the attached sample data? thanks.*

see for example in #4567-2

#19 - 2012-03-20 09:00 AM - Giovanni Manghi
- File 06.png added
- Status changed from Reopened to Feedback

Hi Alexandre,

the resulting table of attributes looks like the attached image (I'm using master on both linux and windows). It seems fine to me. Can you leave feedback? cheers.

Alexandre Neto wrote:

> *Is there any news about this problem?*
>
> *I'm trying Union both in 1.7.4 and 1.9.90-Alpha QGIS code revision*
> *f3b78ef, in a Windows XP computer.*
>
> *Union is not working correctly, it unions the geometries but looses*
> *some attributes in the process.*
>
> *See the attached files. Has you can see in the union5.shp attributes the polygon2 remaining (the part that doesn't intersect the other) have incorrect*
> *attributes.*

#20 - 2012-03-27 03:44 AM - Alexandre Neto

I try to reinstall and update Qgis, both 1.7.4 and 1.9.90, and the problem presisted.

I uninstalled QGIS completly, erasing the OSGEO folder, the .qgis from user folder. Also delected windows registry. After that I installed QGIS again and everything seems to be working well. I guess my installation got some how corrupted, and the normal reinstallation\\update wasn't able to fix the problem.

Problem solved.

#21 - 2012-03-27 03:57 AM - Giovanni Manghi

- Status changed from Feedback to Closed

- Resolution set to fixed

#22 - 2012-04-10 01:13 PM - alobo -

- Status changed from Closed to Reopened

- Priority changed from Normal to 6

- Target version changed from Version 1.7.4 to Version 1.8.0

Union should have an option to integrate those fields with the same name

in the new table (i.e., an option to do what mmqgis/Transefer/Merge layers does).

(Merge layers is an ambiguous term).

In other words, if vector layer dum1 has fields A,B,C and vector layer dum2 has fields

A,B,D, the new option should create a table with fields A,B,C,D

Note that in most cases, the user wants to make union of layers with the same fields in

their tables (i.e., both dum1 and dum2 have fields A,B,C and the result (with this option activated) should have

fields A,B,C as well (currently it is A,B,C,A1,B1,C1), which is rarely what the user wants/expects

Agus

#23 - 2012-04-11 04:06 AM - Giovanni Manghi

- Status changed from Reopened to Feedback

alobo - wrote:

> *Union should have an option to integrate those fields with the same name*
>
> *in the new table (i.e., an option to do what mmqgis/Transefer/Merge layers does).*
>
> *(Merge layers is an ambiguous term).*
>
> *In other words, if vector layer dum1 has fields A,B,C and vector layer dum2 has fields*
>
> *A,B,D, the new option should create a table with fields A,B,C,D*
>
> *Note that in most cases, the user wants to make union of layers with the same fields in*
>
> *their tables (i.e., both dum1 and dum2 have fields A,B,C and the result (with this option activated) should have*
>
> *fields A,B,C as well (currently it is A,B,C,A1,B1,C1), which is rarely what the user wants/expects*

Hi Agus,

so how the attributes values should be in the merged columns? concatenated? or the user should have the option to choose to keep the "A" column from a specific table?

In any case I see this request as a feature request, not as a bug, so I would open a separate ticket and re-close this one.

#24 - 2012-04-15 08:46 AM - Giovanni Manghi

- Priority changed from 6 to High

#25 - 2012-04-16 05:39 AM - Giovanni Manghi

- Priority changed from High to Normal

#26 - 2012-04-18 04:33 AM - Giovanni Manghi

- Status changed from Feedback to Closed

alobo - wrote:

> *Union should have an option to integrate those fields with the same name*
>
> *in the new table (i.e., an option to do what mmqgis/Transefer/Merge layers does).*
>
> *(Merge layers is an ambiguous term).*
>
> *In other words, if vector layer dum1 has fields A,B,C and vector layer dum2 has fields*
>
> *A,B,D, the new option should create a table with fields A,B,C,D*
>
> *Note that in most cases, the user wants to make union of layers with the same fields in*
>
> *their tables (i.e., both dum1 and dum2 have fields A,B,C and the result (with this option activated) should have*
>
> *fields A,B,C as well (currently it is A,B,C,A1,B1,C1), which is rarely what the user wants/expects*
>
> *Agus*

Hi Agus, see my other comment. This should be filed as a feature request. Cheers.

#27 - 2012-09-07 04:53 AM - Bernd Eversmann

- File screenshot01.png added

- File screenshot02.png added

Hi all,

the union command works fine now with small testcases, I tested with two polygons having one overlap: everything is ok.

But in a more complex scenario I run into the following problem:

1) I union two layers: buffered streams (multipart, id 9000) and buffered birdnests (id 1 and 2). Both ID fields are called "id".

2) After the union, all id values end up in the id column, the the second id field (id_1) remains empty. This way, you can't distinguish overlapping from non-overlapping features using ID's. See attached screenshot01.

3) When I convert the multipart streams layer to single part and assign different names to the id fields, things look ok, except for one overlapping feature which gets both id's. I have no clue why this happens (see screenshot02).

I have tested this on mac and windows (qgis 1.8.0). It looks to me as if the union command still has some issues, or am I doing something wrong?

Cheers, Bernd

#28 - 2012-09-07 07:12 AM - Salvatore Larosa

Bernd Eversmann wrote:

> *2) After the union, all id values end up in the id column, the the second id field (id_1) remains empty. This way, you can't distinguish overlapping from*
>
> *non-overlapping features using ID's. See attached screenshot01.*
>
>

3) When I convert the multipart streams layer to single part and assign different names to the id fields, things look ok, except for one overlapping feature which gets both id's. I have no clue why this happens (see screenshot02).

Hi Bernd,

On current master it seems ok here, both the IDs are not NULL for overlapped geometries!

would be interesting to test with your dataset so I can replicate the issue!

Can you share a small sample?

#29 - 2012-09-07 08:57 AM - Bernd Eversmann

- File uniontest_bernd.zip added

Hi Salvatore,

thanks for your quick reply. The test datasets are not big, please find them enclosed (the buffered streams as multi- and single part, and the buffered nests). I'm looking forward to hearing about your test results.

Cheers, Bernd

#30 - 2012-09-07 09:48 AM - Salvatore Larosa

- Status changed from Closed to Reopened

- Assignee deleted (cfarmer -)

- Target version changed from Version 1.8.0 to Version 2.0.0

- Resolution deleted (fixed)

I can confirm!

The result expected of "streams_f_bufd" UNION "nests_f_buf_single" should be:

```
id   |  id_1
----------------
9000 |  1
9000 |  2
9000 |  NULL
1    |  NULL
2    |  NULL
```

#31 - 2013-03-27 10:44 AM - Enrico Fiore

Hi,

Are there news about this bug? I confirm that in QGIS version 1.8.0 the bug remain.

I think that is better to indicate at the users that the tool is broken,so to prevent trouble with the elaborations.

#32 - 2013-04-12 09:29 PM - maning sambale

I confirm this bug using Vector > Geoprocessing Tools > Union.

However, using the Union module in Sextante produced good result.

System: Ubuntu precise latest nightly build.

#33 - 2013-04-16 07:03 AM - Ivan Santiago

- File shapes_and_fake_polys.zip added

- % Done changed from 100 to 0

QGIS continues to give overlapping polygons after a second union processing. I've tested it with fTools 0.6.2. As a curious note, neither the polygon overlapping function of sextante and saga produced acceptable results after the second running of "complete" intersection in saga plugin and union algorithm using sextante.

You can see this easily applying transparency to the resultant layer. In that way you can detect overlapping polygons in a single layer. That must not exist as a result of a union function.

Making "fake" simple polygons work fine. I made three fake polygons, very simple with some holes though. The third union process using fTools worked fine.

Enclosed are original shapefiles for anybody that would have interest in this important issue.

#34 - 2013-04-20 02:20 AM - Giovanni Manghi

- File 57.png added

Ivan Santiago wrote:

> QGIS continues to give overlapping polygons after a second union processing. I've tested it with fTools 0.6.2. As a curious note, neither the polygon overlapping function of sextante and saga produced acceptable results after the second running of "complete" intersection in saga plugin and union algorithm using sextante.

the tool is not wrong, in fact if you see in detail (see attached screenshot) the two polygons that seems wrong after the union are not identical in the input layers, there is a very small difference, something like 0.4 mm... but this makes them two non identical, overlapping polygons...

#35 - 2013-07-15 11:40 AM - Giovanni Manghi

- Status changed from Reopened to Closed

- Resolution set to duplicate

merging with #7708

#36 - 2017-05-01 01:22 AM - Giovanni Manghi

The "ftools" category is being removed from the tracker, changing the category of this ticket to "Processing/QGIS" to not leave the category orphaned.

Files

Union_table.zip	140 KB	2011-11-25	Enrico Fiore
vectorstest.zip	20.9 KB	2012-02-28	alobo -
Union_test_data.zip	4.43 KB	2012-03-20	Alexandre Neto

06.png	198 KB	2012-03-20	Giovanni Manghi
screenshot01.png	142 KB	2012-09-07	Bernd Eversmann
screenshot02.png	114 KB	2012-09-07	Bernd Eversmann
uniontest_bernd.zip	249 KB	2012-09-07	Bernd Eversmann
shapes_and_fake_polys.zip	52.2 KB	2013-04-16	Ivan Santiago
57.png	239 KB	2013-04-20	Giovanni Manghi