

QGIS Application - Feature request #6801  
add "dissolve only adjacent" dissolve option/tool

2012-12-01 03:50 AM - Giovanni Manghi

<b>Status:</b>	Open	<b>Resolution:</b> <b>Copied to github as #:</b> 15949
<b>Priority:</b>	Normal	
<b>Assignee:</b>	Giovanni Manghi	
<b>Category:</b>	Processing/GDAL	
<b>Pull Request or Patch supplied:</b>	No	
<b>Easy fix?:</b>	No	
<b>Description</b>		
<p>It is very common to have to dissolve a polygon layer, but needing to dissolve only geometries that are adjacent.</p> <p>Right now QGIS dissolves all the features with a common attributes, even the ones that are not adjacent (with a consequent big loss of attribute data).</p> <p>To tell the truth I would say that is more common the need to dissolve only adjacent features rather than have to dissolve all features with a common attribute.</p>		

History

#1 - 2014-06-12 05:09 PM - Giovanni Manghi

- Priority changed from High to Normal

#2 - 2014-06-20 09:40 AM - Giovanni Manghi

- Category changed from 44 to 94

- Subject changed from add "dissolve only adjacent" option to dissolve tool to add "dissolve only adjacent" dissolve option/tool

- Assignee set to Victor Olaya

adding this options in ftools (or gdal tools) does not make a lot of sense anymore, better add them directly in processing.

#3 - 2014-11-22 01:32 AM - Alexander Bruy

- Category changed from 94 to Processing/QGIS

#4 - 2014-11-23 10:27 AM - Giovanni Manghi

- File diss2.png added

- Assignee changed from Victor Olaya to Giovanni Manghi

- Category changed from Processing/QGIS to Processing/GDAL

- File diss3.png added

- File diss1.png added

To add this tool it can be used a sql only approach, via ogr2ogr/processing, so I should be able to give it a shot.

A possible query is

```
SELECT
  ST_Union(geom) AS geom,
  a.diss_field,
  null AS oth_field,
```

```

SUM AS area_ha
FROM
    input a
WHERE
    EXISTS (SELECT id_0 FROM input b WHERE b.id_0 != a.id_0 AND (ST_Intersects(a.geom, b.geom))) GROUP BY a.diss_field
UNION
SELECT
    geom,
    diss_field,
    oth_field,
    area_ha
FROM
    input a
WHERE
    NOT EXISTS (SELECT id_0 FROM input b WHERE b.id_0 != a.id_0 AND (ST_Intersects(a.geom, b.geom)))

```

where "oth\_field" is the field to be kept untouched in non dissolved features, "diss\_field" is the attribute used to dissolve adjacent features and "area\_ha" a numeric field where to eventually compute an aggregation stat in dissolve features (and to be kept untouched in non dissolved features).

A slightly different case is when not only physically isolated features are not meant to be dissolved, but also when features that have only neighbours with a different dissolve field are not meant to be dissolved.

```

SELECT
    ST_Union(geom) AS geom,
    a.diss_field,
    null AS oth_field,
SUM AS area_ha
FROM
    input a
WHERE
    EXISTS (SELECT id_0 FROM input b WHERE b.id_0 != a.id_0 AND (ST_Intersects(a.geom, b.geom)) and b.diss_field = a.diss_field) GROUP BY
a.diss_field
UNION
SELECT
    geom,
    diss_field,
    oth_field,
    area_ha
FROM
    input a
WHERE
    NOT EXISTS (SELECT id_0 FROM input b WHERE b.id_0 != a.id_0 AND (ST_Intersects(a.geom, b.geom)) and b.diss_field = a.diss_field)

```

3 pictures are attached to understand better.

**#5 - 2015-10-22 06:45 AM - Bernhard Ströbl**

I included this issue in #13654, please consider closing this ticket if appropriate.

**#6 - 2015-10-22 07:01 AM - Giovanni Manghi**

Hi Bernhard,

I will add ogr/sql tools regardless of the work being done in native qgis tools, for several reasons: I like the flexibility of having GUI tools purely based on spatial SQL queries and because the tools already available have proven to be overall much quicker than the qgis/ftools counterparts. Cheers!

#7 - 2017-05-01 12:48 AM - Giovanni Manghi

- Easy fix? set to No

Files			
diss1.png	212 KB	2014-11-23	Giovanni Manghi
diss2.png	175 KB	2014-11-23	Giovanni Manghi
diss3.png	176 KB	2014-11-23	Giovanni Manghi