

QGIS Application - Feature request #4252

different built-in tools calculate inconsistent polygon areas

2011-09-01 04:24 PM - Alister Hood

Status:	Closed	Resolution: Copied to github as #: 14197
Priority:	Normal	
Assignee:	Magnus Homann	
Category:	Projection Support	
Pull Request or Patch supplied:	No	
Easy fix?:	No	
Description		
<p>- When using the "measure area" tool, there is an "ellipsoidal" checkbox option. If this is unchecked, a slightly different area is reported, which I think I have seen called the "planimetric" area.</p> <p>- The "Identify results" for polygons include a "Derived" area. This area is the "ellipsoidal" area.</p> <p>- The field calculator can also report the area of a polygon. This area is always the "planimetric" area.</p> <p>I think this behaviour should be tidied up:</p> <ul style="list-style-type: none">- either ellipsoidal or planimetric (I'm not sure which one) measurements should be default everywhere.- assuming both types of measurement are actually useful, then it should be possible everywhere to use either type. This could be done by a single global or project preference which controls the results for all three tools, or it could be implemented separately for each tool. I don't know which approach would be best.		

Associated revisions

Revision ddbdcf8a - 2016-02-14 11:04 AM - Nyall Dawson

Fix project unit confusion (pt 2): add project distance unit setting

Adds a new option in project properties to set the units used for distance measurements. This setting defaults to the units set in QGIS options, but can then be overridden for specific projects.

The setting is respected for length and perimeter calculations in:

- Attribute table field update bar
- Field calculator calculations
- Identify tool derived length and perimeter values
- Default unit shown in measure dialog

Also adds unit tests to ensure that length and perimeter calculated by attribute table update bar, field calculator and identify tool are consistent wrt ellipsoidal calculations and distance units.

(refs #13209, #12939, #2402, #4857, #4252)

Revision dfdcec89 - 2016-02-15 02:47 AM - Nyall Dawson

Fix project unit confusion (pt 3): add area unit settings with a ton of available area units (eg m2, km2, mi2, ft2, yd2, ha, ac, etc)

Adds a new option in both the QGIS setting and project properties to

set the units used for area measurements. Just like the distance setting, this defaults to the units set in QGIS options, but can then be overridden for specific projects.

The setting is respected for area calculations in:

- Attribute table field update bar
- Field calculator calculations
- Identify tool derived length and perimeter values

Also adds unit tests to ensure that area calculated by attribute table update bar, field calculator and identify tool are consistent wrt ellipsoidal calculations and area units.

TODO: make measure tool respect area setting

(refs #13209, #4252 and fixes #12939, #2402, #4857)

Revision 479d90a5 - 2016-02-15 07:26 AM - Nyal Dawson

Make measure tool respect project area unit setting

Also add unit tests for measure tool length and area measurement to ensure they return the same results as field calculator and identify tool

Refs #13209, #4252

Revision 4094bae9 - 2016-02-16 02:12 AM - Nyal Dawson

Respect project ellipsoid and unit settings in virtual fields

Fix #12622, #4252

History

#1 - 2011-12-10 05:38 AM - Paolo Cavallini

See also #4416 and #4628

#2 - 2011-12-16 02:11 PM - Giovanni Manghi

- *Target version set to Version 1.7.4*

#3 - 2012-03-10 09:22 PM - Alister Hood

Also see #3296 I think.

#4 - 2012-04-15 10:09 AM - Giovanni Manghi

- *Target version changed from Version 1.7.4 to Version 2.0.0*

#5 - 2012-05-29 12:00 AM - Alister Hood

Note that the "export geometry columns" feature in ftools is now capable of calculating ellipsoidal areas, so I guess people should be encouraged to use that tool. It is a lot slower though.

#6 - 2012-08-28 03:23 PM - Magnus Homann

- Assignee set to Magnus Homann

#7 - 2012-09-04 10:56 AM - Magnus Homann

All except field calculator should be consistent now. Work is ongoing.

#8 - 2012-09-16 10:55 PM - Alister Hood

Also see #2402 and possibly #3122

#9 - 2012-10-06 02:15 AM - Pirmin Kalberer

- Target version changed from Version 2.0.0 to Future Release - Nice to have

#10 - 2016-02-15 05:13 PM - Nyall Dawson

- Status changed from Open to Closed

Fixed in changeset commit:"4094bae960a8521eca6dfe281408ae2e9ad773be".