

QGIS Application - Bug report #10821

area calculation error after CRS changes

2014-07-05 02:08 PM - Gavin Fleming

Status:	Closed	
Priority:	Normal	
Assignee:		
Category:	Projection Support	
Affected QGIS version:	2.4.0	Regression?: No
Operating System:		Easy fix?: No
Pull Request or Patch supplied:	No	Resolution: worksforme
Crashes QGIS or corrupts data:	No	Copied to github as #: 19197
Description		
Submitted on behalf of Therese Forsyth		
Testing QGIS 2.4 with area calculations. File used attached.		
<i>I had a veg map with correct areas calculated using ArcView/ArcGIS (Xarea, Xhectares).</i>		
<i>Just opened QGIS 2.4, loaded the projected veg shapefile and calculated the areas (Auto_ha) CORRECT</i>		
<i>Went to "Settings Options", ticked on "enable on-the-fly...." and then again calculated the areas (otf_tm_ha) CORRECT</i>		
<i>Then I went to "Project properties CRS", ticked on "projection-on-the-fly", selected TM and calculated areas (otfr_tm) ERROR</i>		
<i>Then back at "Project properties CRS", changed projection to UTM and calculated areas (otfr_utm) ERROR</i>		
<i>Then I closed QGIS and reopen it. When I opened it from scratch, I checked the settings and the system kept the settings as it were when I closed the software. Under "Settings Options" the "Enable on-the-fly..." was selected, and under "Project properties CRS" the "projection-on-the-fly" box was ticked on. I ran a calculation without making any changes (area) CORRECT</i>		
<i>Then I went to "Project properties CRS", changed the projection to UTM and apply, but then immediately changed it rather to TM and apply. I then again ran the calculation of the areas (area1) ERROR</i>		
<i>I am not sure what to think of this and how to fix this. I am not even to sure how to pinpoint where the problem comes in. It just seems that the minute you make changes (does not matter what) under "Project properties CRS", your area calculations go absolutely haywire.</i>		
I can confirm the same error in 2.5 Master. The layer's geometry is in "South African CRS : HBK_NO_27" CRS. I know that Therese is mistaken in some of her experiments thinking that projecting on the fly might affect area calculations since the calculations occur on the native geometry, not in the projected space (right?). Which means that the area calculation should be the same no matter what project CRS is set and also should be correct every time, which is not the case.		

History

#1 - 2014-07-07 09:31 AM - Giovanni Manghi

- Status changed from Open to Feedback

Which means that the area calculation should be the same no matter what project CRS is set and also should be correct every time, which is not the case.

well... no. QGIS by design works in a different way: when OTFR is ON the values are computed in project CTS units and using the ellipsoid defined in project properties -> general -> measure tools -> ellipsoid

you can also choose to manually set it to "none/planar" to have always your measures done on a plane.

#2 - 2014-10-08 09:48 AM - Giovanni Manghi

- *Resolution set to worksforme*
- *Status changed from Feedback to Closed*

closing for lack of feedback, please reopen if necessary.

Files			
qgis_issue_area_error.zip	28.2 KB	2014-07-05	Gavin Fleming