

QGIS Application - Feature request #2452

Save as vector (not only to shapefile)

2010-02-17 10:32 PM - Marco Hugentobler

Status: Closed	
Priority: Low	
Assignee: Jürgen Fischer	
Category: Vectors	
Pull Request or Patch supplied:	Resolution: fixed
Easy fix?: No	Copied to github as #: 12512
Description	
<p>The following patch adds the possibility to save vector to an OGR supported file format (replaces the 'save as shapefile'). Jürgen, could you review it?</p> <p>The part with the OGR drivers is a bit redundant to code that is already in the OGR provider and in the OGR converter plugin. But as far as I could see, that code does not contain the relationship between driver key and filter string. Maybe we could shift that code to a central place in future?</p> <p>Regards, Marco</p>	

History

#1 - 2010-02-18 08:41 AM - John Tull

I tested the patch on my OS X setup with commit:34144244 (SVN r12954). It worked very well on a kml export I performed. This is a very useful addition. Thank you, Marco!

#2 - 2010-02-22 05:45 PM - Jeremy Palmer

Tested patch on [[WinXP]] with Visual studio 2008 build. Compiled and worked well.

Mapinfo and KML export seems to work well with layers and layer selections. However I did notice that table names in the sqlite export were getting the fullpath to the location of the saved sqlite database. Maybe the QGIS layer name would be better?

#3 - 2010-03-02 02:36 PM - Jeremy Palmer

I've been doing some more testing with transforming output vector layers. I have found that if the layer transformation fails during the vector writing, the process aborts, no error message is given to the user, and the output file is left in a corrupted state.

Here is the debug log from the failed layer save:

```
..\\..\\..\\src\\gui\\qgsprojectionselector.cpp(72) : (QgsProjectionSelector::QgsProjectionSelector) Use popular projection list from EPSG/Proj4 saved state
..\\..\\..\\src\\core\\qgscoordinatereferencesystem.cpp(242) : (QgsCoordinateReferenceSystem::loadFromDb) failed : select srs_id,description,projection_acronym,ellipsoid_acronym,parameters,srid,epsg,is_geo from tbl_srs where epsg='100000'
..\\..\\..\\src\\core\\qgscoordinatereferencesystem.cpp(489) : (QgsCoordinateReferenceSystem::getRecord) running query: select * from tbl_srs where parameters='+proj=longlat +ellps=GRS80 +towgs84=0,0,0,0,0,0,0 +pm=160 +no_defs'
..\\..\\..\\src\\core\\qgscoordinatereferencesystem.cpp(523) : (QgsCoordinateReferenceSystem::getRecord) running query: select * from tbl_srs where parameters='+proj=longlat +ellps=GRS80 +towgs84=0,0,0,0,0,0,0 +pm=160 +no_defs'
```

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eSystem::getRecord) trying system qgis.db
..\..\..\src\core\qgscoordinatereferencesystem.cpp(558) : (QgsCoordinateReferenc
eSystem::getRecord) failed : select * from tbl_srs where parameters='+proj=long
lat +ellps=GRS80 +towgs84=0,0,0,0,0,0,0 +pm=160 +no_defs'
..\..\..\src\core\qgscoordinatereferencesystem.cpp(566) : (QgsCoordinateReferenc
eSystem::getRecord) retrieved: select * from tbl_srs where parameters='+proj=lo
nglat +ellps=GRS80 +towgs84=0,0,0,0,0,0 +pm=160 +no_defs'
..\..\..\src\core\qgscoordinatereferencesystem.cpp(425) : (QgsCoordinateReferenc
eSystem::createFromProj4) globbing search for srsid from this proj string
..\..\..\src\core\qgscoordinatereferencesystem.cpp(777) : (QgsCoordinateReferenc
eSystem::findMatchingProj) entered.
..\..\..\src\core\qgscoordinatereferencesystem.cpp(826) : (QgsCoordinateReferenc
eSystem::findMatchingProj) no match found in srs.db, trying user db now!
..\..\..\src\core\qgscoordinatereferencesystem.cpp(853) : (QgsCoordinateReferenc
eSystem::findMatchingProj) -----> MATCH FOUND in user qgis.db srsid: 100000
..\..\..\src\core\qgscoordinatereferencesystem.cpp(428) : (QgsCoordinateReferenc
eSystem::createFromProj4) globbing search for srsid returned srsid: 100000
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(242) : (QgsCoordinateReferenc
eSystem::loadFromDb) failed : select srs_id,description,projection_acronym,ellip
soid_acronym,parameters,srid,epsg,is_geo from tbl_srs where epsg='0'
..\..\..\src\core\qgscoordinatereferencesystem.cpp(489) : (QgsCoordinateReferenc
eSystem::getRecord) running query: select * from tbl_srs where parameters='+proj
=merc +lon_0=0 +lat_ts=0 +x_0=0 +y_0=0 +a=6378137 +b=6378137 +units=m +no_defs'
..\..\..\src\core\qgscoordinatereferencesystem.cpp(523) : (QgsCoordinateReferenc
eSystem::getRecord) trying system qgis.db
..\..\..\src\core\qgscoordinatereferencesystem.cpp(566) : (QgsCoordinateReferenc
eSystem::getRecord) retrieved: select * from tbl_srs where parameters='+proj=me
rc +lon_0=0 +lat_ts=0 +x_0=0 +y_0=0 +a=6378137 +b=6378137 +units=m +no_defs'
..\..\..\src\core\qgscoordinatereferencesystem.cpp(369) : (QgsCoordinateReferenc
eSystem::createFromProj4) proj4string match search for srsid returned srsid: 100
002
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\gui\qgsprojectionselector.cpp(279) : (QgsProjectionSelector::ogcWms
[[CrsFilterAsSqlExpression]]) exiting with '1'.
..\..\..\src\gui\qgsprojectionselector.cpp(660) : (QgsProjectionSelector::loadUs
erCrsList) Fetching user projection list...
..\..\..\src\gui\qgsprojectionselector.cpp(279) : (QgsProjectionSelector::ogcWms
[[CrsFilterAsSqlExpression]]) exiting with '1'.
..\..\..\src\gui\qgsprojectionselector.cpp(465) : (QgsProjectionSelector::select
edProj4String) mySrsId = 3452
..\..\..\src\gui\qgsprojectionselector.cpp(466) : (QgsProjectionSelector::select
edProj4String) USER_CRS_START_ID = 100000
..\..\..\src\gui\qgsprojectionselector.cpp(490) : (QgsProjectionSelector::select
edProj4String) db = C:/OSGeo4W/apps/qgis-linz./resources/srs.db
..\..\..\src\gui\qgsprojectionselector.cpp(507) : (QgsProjectionSelector::select
edProj4String) Selection sql: select parameters from tbl_srs where srs_id = 3452

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..\..\..\src\gui\qgsprojectionselector.cpp(465) : (QgsProjectionSelector::select
edProj4String) mySrsId = 177
..\..\..\src\gui\qgsprojectionselector.cpp(466) : (QgsProjectionSelector::select
edProj4String) USER_CRS_START_ID = 100000
..\..\..\src\gui\qgsprojectionselector.cpp(490) : (QgsProjectionSelector::select
edProj4String) db = C:/OSGeo4W/apps/qgis-linz/.resources/srs.db
..\..\..\src\gui\qgsprojectionselector.cpp(507) : (QgsProjectionSelector::select
edProj4String) Selection sql: select parameters from tbl_srs where srs_id = 177
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
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eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgscoordinatereferencesystem.cpp(739) : (QgsCoordinateReferenc
eSystem::setMapUnits) Projection has linear units of Meter
..\..\..\src\core\qgsvectorfilewriter.cpp(97) : (QgsVectorFileWriter::QgsVectorF
ileWriter) Created data source
..\..\..\src\core\qgsvectorfilewriter.cpp(119) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) WKT to save as is PROJCS["unnamed",GEOGCS["GRS 1980(IUGG, 1980)",DAT
UM[[unknown"SPHEROID["GRS80]],PR
MEM[[Greenwich"0]UNIT["degree]],PROJECTION["Transverse_Mer
cator"],PARAMETER[[latitude_of_origin"0]PARAMETER["central_meridian]],PARA
METER[[scale_factor"09996]PARAMETER["false_easting]],PARAMETER["false
_northing",1000000],UNIT[[Meter]]
..\..\..\src\core\qgsvectorfilewriter.cpp(156) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) created layer
..\..\..\src\core\qgsvectorfilewriter.cpp(159) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating 6 fields
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field id type int width 10 precision 0
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field alt_id type int width 10 precision 0
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field name type QString width 255 precision 104
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field location type QString width 255 precision 104
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field status type QString width 255 precision 8
..\..\..\src\core\qgsvectorfilewriter.cpp(221) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) creating field audit_id type int width 10 precision 0
..\..\..\src\core\qgsvectorfilewriter.cpp(235) : (QgsVectorFileWriter::QgsVector
[[FileWriter]]) Done creating fields
..\..\..\src\providers\postgres\qgspostgresprovider.cpp(3115) : (QgsPostgresP
rovider::Conn::openCursor) Starting read-only transaction
..\..\..\src\core\qgscoordinatetransform.cpp(488) : (QgsCoordinateTransform::tra
nsformCoords) Projection failed emitting invalid transform signal: forward trans
form of
(0.152795, -0.806109)
```

failed with error: latitude or longitude exceeded limits

```
..\..\..\src\core\qgscoordinatetransform.cpp(492) : (QgsCoordinateTransform::transformCoords) throwing exception
```

```
..\..\..\src\core\qgscoordinatetransform.cpp(306) : (QgsCoordinateTransform::transformInPlace) rethrowing exception
```

Failed to transform a point while drawing a feature of type `_`. Writing stopped.

(Exception: forward transform of
(0.152795, -0.806109)

failed with error: latitude or longitude exceeded limits

)

#4 - 2010-03-03 11:26 AM - Chris Crook

Would it be possible to add a feature so that if the layer is using the non-persistent memory data provider, then when it is saved to a persistent provider, shapefile or other, then the layer is replaced with the persistent version? (This would address the ticket I've just raised #2487). This would make sense from a user point of view - like saving a new document in a word processor. I guess it could be optional, though I can't see any reason not make it the normal behaviour.

#5 - 2010-03-18 03:29 PM - Marco Hugentobler

- *Resolution set to fixed*

- *Status changed from Open to Closed*

Applied in commit:d14a5e64 (SVN r13073). The sqlite table name problem is fixed. The coordinate transformation problem is hard for me to reproduce. Maybe it is a case where the transformation class does not throw any exception.

Files

save_as_vector.diff	15.9 KB	2010-02-17	Marco Hugentobler
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