

QGIS Application - Bug report #18905

Deprecated CRSs: inconsistencies in srs.db and in its update process

2018-05-03 05:39 PM - Andrea Giudiceandrea

Status:	Closed	
Priority:	Normal	
Assignee:		
Category:	Projection Support	
Affected QGIS version:	3.0.2	Regression?: No
Operating System:		Easy fix?: No
Pull Request or Patch supplied:		Resolution:
Crashes QGIS or corrupts data:		Copied to github as #: 26737
Description		
<p>Trying to investigate the bug #18896, I've found some inconsistencies in srs.db (in both QGIS 3.0.2 and 2.18.19) about the deprecated Coordinate Reference Systems.</p> <p>In srs.db shipped with QGIS 3.0.2 (qgis-common-3.0.2-1) the table tbl_srs contains 283 CRSs (all projected ones) with "(deprecated)" postponed to the CRS name in the 'description' field, but only 227 CRSs of those have the field 'deprecated' = 1 (this is right), while 56 CRSs of those have the field 'deprecated' = 0 (this is wrong).</p> <p>Moreover, there is a CRS which has 'deprecated' = 1 but not "(deprecated)" in the 'description' field: srs_id=26810 , description="S-JTSK (Greenwich) / Krovak East North", srid=102067 , auth_name=EPSG, deprecated=1. This inconsistency was introduced with commit https://github.com/qgis/QGIS/commit/792ac5a433bc59ff21618201109c0101f22eb189</p> <p>For QGIS 2.18.19: srs.db in qgis-ltr-common-2.18.19-1 contains the same 227 CRSs (with "(deprecated)" in 'description' and 'deprecated' = 1) and 33 CRSs (with "(deprecated)" in 'description' and 'deprecated' = 0) that increase to 56 CRSs, the same as QGIS 3.0.2, after the postinstall process (through crssync.exe in Windows). And there is also the same CRS with 'deprecated' = 1 but not "(deprecated)" in the 'description'.</p> <p>It seems to me that the problem of CRSs with "(deprecated)" in 'description' field and 'deprecated' field wrongly set to 0 is in QgsCoordinateReferenceSystem::syncDatabase():</p> <p>in the sql statement that imports in srs.db the missing CRSs from GDAL EPSG derived support csv files (gcs.csv, pcs.csv, ...): [lines 1969-1975 for 3.0 and master, lines 1814-1820 for 2.18]</p> <pre>sql = QStringLiteral("INSERT INTO tbl_srs(description,projection_acronym,ellipsoid_acronym,parameters,srid,auth_name,auth_id,is_geo,deprecated) VALUES (%1,%2,%3,%4,%5,'EPSG',%5,%6,0)") .arg(quotedValue(name) , quotedValue(projRegExp.cap(1)) , quotedValue(ellps) , quotedValue(proj4)) .arg(it.key()) .arg(OSRIsGeographic(crs));</pre> <p>as you can see, 'deprecated' field in tbl_srs is wrongly filled with 0 for each CRS imported, regardless of the value present for that CRS in the "DEPRECATED" column of the GDAL EPSG csv files, while loadIDs (in syncDatabase(), through GDAL_OGR OSRImportFromEPSG, SetEPSGProjCS, EPSGGetPCSInfo) correctly appends "deprecated" to the CRS name/description according to the value present for that CRS in the said "DEPRECATED" column.</p>		

So I think we need for now to:

- **fix the sql INSERT INTO statement in order to correctly set the field 'deprecated' for imported CRSs**
- **fix srs.db**
 - - setting 'deprecated' = 1 for all already present CRSs with " (deprecated)" in 'description' field
 - - appending " (deprecated)" to the content of the 'description' field of the aforementioned CRS with srid=102067

Eventually, we can also take care (I can help in this) of some discrepancies between srs.db and the EPSG database included in GDAL, about deprecated CRSs: for instance, in geocs.csv there are 35 Geographic CRSs with "1" in "DEPRECATED" column, but in srs.db none of those have 'deprecated' = 1 nor " deprecated" in 'description'.

Associated revisions

Revision e15f7cc0 - 2018-05-19 10:57 PM - Jürgen Fischer

crssync: also update 'deprecated' flag (fixes #18905)

History

#1 - 2018-05-06 02:15 PM - Andrea Giudiceandrea

See also (about the last sentence of the bug report):

[gdal-dev] About deprecated CRS and the different behavior of EPSGGetPCSInfo and EPSGGetGCSInfo

<https://lists.osgeo.org/pipermail/gdal-dev/2018-May/048495.html>

#2 - 2018-05-19 11:15 PM - Jürgen Fischer

- % Done changed from 0 to 100
- Status changed from Open to Closed

Applied in changeset commit:qgis|e15f7cc06950b35a5d2db8054a7da7105397f564.