WMS with EPSG:31255 is shifted (datum=hermannskogel)

2016-06-17 12:04 AM - Christoph Candido

Status: Closed
Priority: High
Assignee: Even Rouault
Category: Web Services clients/WMS
Affected QGIS version: master
Operating System: Windows
Pull Request or Patch supplied: No
Crashes QGIS or corrupts data: No
Regression?: No
Easy fix?: No
Resolution: Copied to github as # 22996

Description

QGIS commit:1563526 (2.15.0-86, OSGeo4W-x86, GDAL 2.1.0-1)

When we import a WMS layer with EPSG:31255 it is shifted more than 100m.

Looks like the problem is within gdal CRS definition file (c:\osgeo4w\share\proj\epsg).

There was a change from

```
<31255> +proj=tmerc +lat_0=0 +lon_0=13.33333333333333 +k=1 +x_0=0 +y_0=-5000000
  +towgs84=577.326,90.129,463.919,5.137,1.474,5.297,2.4232 +units=m +no_defs <>
```

to

```
<31255> +proj=tmerc +lat_0=0 +lon_0=13.33333333333333 +k=1 +x_0=0 +y_0=-5000000 *+datum=hermannskogel* +units=m +no_defs <>
```

Unfortunately, datum "hermannskogel" seems to be hardcoded with three-parameters "towgs84=653.0,-212.0,449.0" instead of the official 7 parameters "towgs84=577.326,90.129,463.919,5.137,1.474,5.297,2.4232" (http://www.bev.gv.at/pls/portal/url/ITEM/38A4FDFE4CD5DBBE040010A83215AF0)

The QGIS definition of EPSG:31255 in c:\osgeo4w\apps\qgis-dev\resouces\srs.db uses the official 7 parameters, producing the datum shift.

Is it possible to correct the definition of datum "hermannskogel" in gdal?

History

#1 - 2016-06-18 07:28 AM - Even Rouault

Which version of proj.4 are you using ? hermannskogel definition was updated from the 3 parameters to the 7 parameters in proj 4.9.1 :

https://github.com/OSGeo/proj.4/commit/e4e6280b985d40390fad3c4e88135774c7d9218

#2 - 2016-06-22 11:38 PM - Christoph Candido

- Status changed from Open to Closed
Even,

QGIS 2.15.0-86 uses PROJ.4 version 4.9.2.
And YES, the parameters for datum "hermannskogel" are correct (7 Parameters).

I guess the problem with our install was, that QGIS referenced an old proj.dll (maybe from Sextante).
I removed all pre 4.9.1 proj.dll files and everything is fine now.

Thank's a lot for your info!