

QGIS Application - Feature request #17219

Better description of bands

2017-09-29 09:11 AM - Paolo Cavallini

Status: Closed	
Priority: Normal	
Assignee:	
Category: GUI	
Pull Request or Patch supplied:	Resolution: fixed/implemented
Easy fix?: No	Copied to github as #: 25118
Description	
Some multiband format (I have checked especialli GRIB) have a description in the metadata for the meaning of each band (e.g. wind speed 10 m above ground). In the layer properties > Style, only the band numbers are listed (band 1 etc.). This makes styling very difficult. It would seem reasonable to add the metadata to the band number, e.g.: Band 1 (wind speed 10 m above ground)	
Related issues:	
Related to QGIS Application - Bug report # 19586: Problem reading grib file	Closed 2018-08-10

History

#1 - 2017-10-02 01:24 AM - Nyal Dawson

- Status changed from Open to Feedback

Can you share one of these files?

#2 - 2017-10-02 09:09 AM - Paolo Cavallini

<http://www.faunalia.eu/~paolo/grib.zip>

Thanks.

BTW: I do not know whether this is a general issue, but the projection for this particular file (EPSG:4326) is not correctly interpreted.

#3 - 2018-01-09 01:01 PM - Paolo Cavallini

Misinterpretation of EPSG code confirmed with other GRIBs from other sources.

#4 - 2018-01-16 03:46 PM - Giovanni Manghi

- File Screenshot_20180116_144439.png added

Paolo Cavallini wrote:

Misinterpretation of EPSG code confirmed with other GRIBs from other sources.

here on 2.18.* and gdal 2.2.2:

both gdal (and qgis) read a custom CRS (+proj=longlat +a=6367470 +b=6367470 +no_defs) but this definitely seems to reproject to the right place, see attached image.

#5 - 2018-01-16 04:04 PM - Paolo Cavallini

Confirmed, thanks for checking. As mentioned in mailing list, GRIBS dowloaded and correctly visualized in ZyGrib are not projected correctly, see <http://www.faunalia.eu/~paolo/grib2.bz2>

This is outside the scope of the current ticket however.

#6 - 2018-01-17 01:16 PM - Giovanni Manghi

Paolo Cavallini wrote:

*Confirmed, thanks for checking. As mentioned in mailing list, GRIBS dowloaded and correctly visualized in ZyGrib are not projected correctly, see <http://www.faunalia.eu/~paolo/grib2.bz2>
This is outside the scope of the current ticket however.*

gdalinfo reports messages like

Band 1206 Block=109x1 Type=Float64, ColorInterp=Undefined

Description = 0[-] SFC (Ground or water surface)

Un-handled possible ensemble section center 58 subcenter 0

Warning 1: Band 1206 of GRIB dataset is 130x99, while the first band and dataset is 109x89. **Georeferencing of band 1206 may be incorrect, and data access may be incomplete.**

NoData Value=9999

Metadata:

GRIB_COMMENT=undefined [-]

GRIB_ELEMENT=var155

GRIB_FORECAST_SECONDS=345600 sec

GRIB_REF_TIME= 1515456000 sec UTC

GRIB_SHORT_NAME=0-SFC

GRIB_UNIT=[-]

GRIB_VALID_TIME= 1515801600 sec UTC

so I would say it is GDAL or zygrib problem.

#7 - 2018-01-17 08:56 PM - Nyall Dawson

- Resolution set to up/downstream

#8 - 2018-01-18 08:33 AM - Paolo Cavallini

- Resolution deleted (up/downstream)

We are mixing up things here, my fault.

1. the projection issue: unclear whether this is due to QGIS misinterpreting EPSG:4326 or ZyGrib/GDAL providing invalid projection; I will do more research
2. wrong extent: brilliantly clarified by Giovanni, thanks
3. description of bands: remains valid, it's a QGIS GUI issue, possibly not too difficult.

Thanks all for feedback.

#9 - 2018-01-18 11:24 AM - Paolo Cavallini

For reference: <http://www.zygrib.org/forum/viewtopic.php?f=3&t=1069>

#10 - 2018-01-18 11:30 AM - Paolo Cavallini

Projection issue seems due to Zygrib, in any case not to QGIS:

Driver: GRIB/GRIdded Binary (.grb)

Files: ECMWF0100_2017030100_000.grb

Size is 181, 161

Coordinate System is:

GEOGCS["Coordinate System imported from GRIB file",

DATUM["unknown",

SPHEROID["Sphere",6367470,0]],

PRIMEM["Greenwich",0],

UNIT["degree",0.0174532925199433]]

Origin = (1.950000000000000,50.049999999999997)

Pixel Size = (0.100000000000000,-0.100000000000000)

Corner Coordinates:

Upper Left (1.9500000, 50.0500000) (1d57' 0.00"E, 50d 3' 0.00"N)

Lower Left (1.9500000, 33.9500000) (1d57' 0.00"E, 33d57' 0.00"N)

Upper Right (20.0500000, 50.0500000) (20d 3' 0.00"E, 50d 3' 0.00"N)

Lower Right (20.0500000, 33.9500000) (20d 3' 0.00"E, 33d57' 0.00"N)

Center (11.0000000, 42.0000000) (11d 0' 0.00"E, 42d 0' 0.00"N)

#11 - 2018-01-18 11:40 AM - Paolo Cavallini

So we can go back to the original issue: showing in the name of bands also their description, as reported by GDAL, to make it easier for users to interpret and symbolize data.

#12 - 2018-02-24 03:21 PM - Paolo Cavallini

- Status changed from Feedback to Open

#13 - 2018-08-10 09:56 AM - Saber Razmjooei

- Related to Bug report #19586: Problem reading grib file added

#14 - 2018-08-10 02:29 PM - Saber Razmjooei

It works fine in QGIS master when loading the layer as mesh:

<https://issues.qgis.org/issues/19586>

<https://issues.qgis.org/attachments/download/13105/grib.png>

#15 - 2018-08-13 10:42 AM - Giovanni Manghi

- Status changed from Open to Feedback

#16 - 2018-08-13 11:08 AM - Paolo Cavallini

- Status changed from Feedback to Closed

- Resolution set to fixed/implemented

Confirmed, thanks.

Files

Screenshot_20180116_144439.png	1.2 MB	2018-01-16	Giovanni Manghi
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