

## QGIS Application - Feature request #8912

### Better support for georeferenced pdf

2013-10-18 06:21 PM - Yannick Portier

<b>Status:</b>	Open	<b>Resolution:</b> <b>Copied to github as #:</b> 17588
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Category:</b>	Unknown	
<b>Pull Request or Patch supplied:</b>		
<b>Easy fix?:</b>	No	
<b>Description</b>		
ability to import / load maps in pdf format such as USGS maps		

#### History

##### #1 - 2013-10-19 03:25 AM - Giovanni Manghi

- File 20.png added
- Status changed from Open to Closed

If you have a copy of QGIS compiled against GDAL 1.10 (and you should, if you use Linux, OsX or QGIS 64bit for Win) then you already have support for geopdf.

I can successfully load vectors layers out of

[http://www.terragotech.com/images/pdf/rumney\\_farmforest\\_geopdf.pdf](http://www.terragotech.com/images/pdf/rumney_farmforest_geopdf.pdf)

and load it as raster too. See attached image.

##### #2 - 2013-10-19 10:26 AM - Yannick Portier

Thanks for the info.

It seems I'm out of luck though, because I use QGIS (the latest update from OSGeo4W) on Win32 and cannot load a pdf in either vector or raster format...

##### #3 - 2013-10-19 11:25 AM - Giovanni Manghi

Yannick Portier wrote:

Thanks for the info.  
It seems I'm out of luck though, because I use QGIS (the latest update from OSGeo4W) on Win32 and cannot load a pdf in either vector or raster format...

win 32 installers should be updated soon (also with gdal 1.10).

##### #4 - 2013-11-04 01:51 PM - Yannick Portier

How did you do manage to get it loaded ? I still cannot load this pdf either on win32 or win64 (both have the latest and greatest updates from OSGeo4W) and I have tried both as vector or raster, it says it is "not a supported raster data source" or "not a recognized or valid data source".

Am I missing something ?

**#5 - 2013-11-05 02:12 AM - Giovanni Manghi**

you are right, despite the fact that qgis/windows now comes with gdal 1.10 and that this has geopdf support active the geopdf files are not loaded.

You should file a new ticket then, specifying that on Linux is ok.

```
C:\>gdalinfo --formats
```

Supported Formats:

VRT (rw+v): Virtual Raster  
GTiff (rw+vs): GeoTIFF  
NITF (rw+vs): National Imagery Transmission Format  
RPFTOC (rovs): Raster Product Format TOC format  
ECRGTOC (rovs): ECRG TOC format  
HFA (rw+v): Erdas Imagine Images (.img)  
SAR\_CEOS (rov): CEOS SAR Image  
CEOS (rov): CEOS Image  
JAXAPALSAR (rov): JAXA PALSAR Product Reader (Level 1.1/1.5)  
GFF (rov): Ground-based SAR Applications Testbed File Format (.gff)  
ELAS (rw+v): ELAS  
AIG (rov): Arc/Info Binary Grid  
AAIGrid (rwv): Arc/Info ASCII Grid  
GRASSASCIIGrid (rov): GRASS ASCII Grid  
SDTS (rov): SDTS Raster  
OGDI (ros): OGDII Bridge  
DTED (rwv): DTED Elevation Raster  
PNG (rwv): Portable Network Graphics  
JPEG (rwv): JPEG JFIF  
MEM (rw+): In Memory Raster  
JDEM (rov): Japanese DEM (.mem)  
GIF (rwv): Graphics Interchange Format (.gif)  
BIGGIF (rov): Graphics Interchange Format (.gif)  
ESAT (rov): Envisat Image Format  
BSB (rov): Maptech BSB Nautical Charts  
XPM (rwv): X11 PixMap Format  
BMP (rw+v): MS Windows Device Independent Bitmap  
DIMAP (rov): SPOT DIMAP  
AirSAR (ro): AirSAR Polarimetric Image  
RS2 (ros): RadarSat 2 XML Product  
PCIDSK (rw+v): PCIDSK Database File  
PCRaster (rw): PCRaster Raster File  
ILWIS (rw+v): ILWIS Raster Map  
SGI (rw+): SGI Image File Format 1.0  
SRTMHGT (rwv): SRTMHGT File Format  
Leveller (rw+): Leveller heightfield  
Terragen (rw+): Terragen heightfield  
GMT (rw): GMT NetCDF Grid Format  
netCDF (rw+s): Network Common Data Format  
HDF4 (ros): Hierarchical Data Format Release 4  
HDF4Image (rw+): HDF4 Dataset  
ISIS3 (rov): USGS Astrogeology ISIS cube (Version 3)

ISIS2 (rw+v): USGS Astrogeology ISIS cube (Version 2)  
PDS (rov): NASA Planetary Data System  
TIL (rov): EarthWatch .TIL  
ERS (rw+v): ERMapper .ers Labelled  
JP2OpenJPEG (rwv): JPEG-2000 driver based on OpenJPEG library  
L1B (rov): NOAA Polar Orbiter Level 1b Data Set  
FIT (rwv): FIT Image  
GRIB (rov): GRIdded Binary (.grb)  
RMF (rw+v): Raster Matrix Format  
WCS (rovs): OGC Web Coverage Service  
WMS (rwvs): OGC Web Map Service  
MSGN (ro): EUMETSAT Archive native (.nat)  
RST (rw+v): Idrisi Raster A.1  
INGR (rw+v): Intergraph Raster  
GSAG (rwv): Golden Software ASCII Grid (.grd)  
GSBG (rw+v): Golden Software Binary Grid (.grd)  
GS7BG (rw+v): Golden Software 7 Binary Grid (.grd)  
COSAR (ro): COSAR Annotated Binary Matrix (TerraSAR-X)  
TSX (rov): TerraSAR-X Product  
COASP (ro): DRDC COASP SAR Processor Raster  
R (rwv): R Object Data Store  
MAP (rov): OziExplorer .MAP  
PNM (rw+v): Portable Pixmap Format (netpbm)  
DOQ1 (rov): USGS DOQ (Old Style)  
DOQ2 (rov): USGS DOQ (New Style)  
ENVI (rw+v): ENVI .hdr Labelled  
EHdr (rw+v): ESRI .hdr Labelled  
GenBin (rov): Generic Binary (.hdr Labelled)  
PAux (rw+): PCI .aux Labelled  
MFF (rw+): Vexcel MFF Raster  
MFF2 (rw+): Vexcel MFF2 (HKV) Raster  
FujiBAS (ro): Fuji BAS Scanner Image  
GSC (rov): GSC Geogrid  
FAST (rov): EOSAT FAST Format  
BT (rw+v): VTP .bt (Binary Terrain) 1.3 Format  
LAN (rw+v): Erdas .LAN/.GIS  
CPG (ro): Convair PolGASP  
IDA (rw+): Image Data and Analysis  
NDF (rov): NLAPS Data Format  
EIR (rov): Erdas Imagine Raw  
DIPEX (rov): DIPEX  
LCP (rov): FARSITE v.4 Landscape File (.lcp)  
GTX (rw+v): NOAA Vertical Datum .GTX  
LOSLAS (rov): NADCON .los/.las Datum Grid Shift  
NTv2 (rw+vs): NTv2 Datum Grid Shift  
CTable2 (rw+v): CTable2 Datum Grid Shift  
ACE2 (rov): ACE2  
SNODAS (rov): Snow Data Assimilation System  
ARG (rwv): Azavea Raster Grid format  
RIK (ro): Swedish Grid RIK (.rik)  
USGSDEM (rwv): USGS Optional ASCII DEM (and CDED)  
GXF (ro): GeoSoft Grid Exchange Format  
HTTP (ro): HTTP Fetching Wrapper

BAG (rov): Bathymetry Attributed Grid  
HDF5 (ros): Hierarchical Data Format Release 5  
HDF5Image (ro): HDF5 Dataset  
NWT\_GRD (rov): Northwood Numeric Grid Format .grd/.tab  
NWT\_GRC (rov): Northwood Classified Grid Format .grc/.tab  
ADRG (rw+vs): ARC Digitized Raster Graphics  
SRP (rov): Standard Raster Product (ASRP/USRP)  
BLX (rw): Magellan topo (.blx)  
Rasterlite (rws): Rasterlite  
PostGISRaster (rws): PostGIS Raster driver  
SAGA (rw+v): SAGA GIS Binary Grid (.sdat)  
KMLSUPEROVERLAY (rwv): Kml Super Overlay  
XYZ (rwv): ASCII Gridded XYZ  
HF2 (rwv): HF2/HFZ heightfield raster  
PDF (rws): Geospatial PDF  
OZI (rov): OziExplorer Image File  
CTG (rov): USGS LULC Composite Theme Grid  
E00GRID (rov): Arc/Info Export E00 GRID  
ZMap (rwv): ZMap Plus Grid  
NGSGEOID (rov): NOAA NGS Geoid Height Grids  
MBTiles (rov): MBTiles  
IRIS (rov): IRIS data (.PPI, .CAPPi etc)

#### #6 - 2014-08-18 11:10 AM - Andre Joost

Georeferenced PDF are still not loading properly. Take <http://pub.data.gov.bc.ca/datasets/177864/pdf/092f/092F088.pdf> as reference from <http://gis.stackexchange.com/questions/93705/how-to-add-georeferenced-pdf-as-layer-to-qgis-2-0>

With GDAL 1.11.0, I can translate it to Geotiff (even inside QGIS), and load that into QGIS. But directly loading never ends, on Windows 2.5.0 and Ubuntu 2.4.0. So it is not a Windows issue.

The Rumney Farmforest GeoPDF linked above works for me (after quite some time of waiting) on both systems.

#### #7 - 2014-11-08 10:19 PM - Andre Joost

The new USGS Topo geospatial PDF files have some pitfalls, that can be handled with GDAL, but not yet inside QGIS. Please refer also to [http://nationalmap.gov/ustopo/documents/ustopo2gtif\\_current.pdf](http://nationalmap.gov/ustopo/documents/ustopo2gtif_current.pdf) for further details.

They are a compound of vector and raster data in several layers. These may contain sublayers, and vector layers may have mixed geometries of linestrings and polygons.

You can run ogrinfo on the file to get a list of the non-empty vector layers, and ogr2ogr -f sqlite can store them separated by layer and geometry type. You can use Add Vector Layer in QGIS as well to select the layers you want, but it might fail on the mixed geometries.

gdalinfo -mdd LAYERS will report all (about 28) layers, with slightly different naming of sublayers than ogrinfo. But it does not tell you if the layers are vector, raster or empty. In fact, only Orthoimage and Shaded\_Relief are raster layers. GDAL will rasterize vector layers, which may take some time.

If you convert the file with gdal\_translate, it will take hours and result in a tif file of nearly 1GB. This is not useful for QGIS. Changing the resolution from the default of 600dpi will decrease file size and time. Furthermore, you may want only single layers, either Map\_Collar, Map\_Frame, or Images. If you utilize the vector export, you may want only the Shaded\_Relief sublayer. Extracting sublayers is possible with GDAL.

So what is necessary for QGIS, is to make sublayers and resolution selectable, and make sure that the vector import can handle mixed geometries.

Note that TerraGo GeoPDF (like the one linked by Giovanni), historical USGS Topo (raster-only) and Canadian Geopdf like the one I linked above behave different, and more QGIS-friendly.

**#8 - 2014-11-09 10:29 AM - Giovanni Manghi**

- Subject changed from support for georeferenced pdf to Better support for georeferenced pdf
- Status changed from Closed to Open

**#9 - 2017-05-01 12:48 AM - Giovanni Manghi**

- Easy fix? set to No

**#10 - 2017-09-22 10:07 AM - Jürgen Fischer**

- Category set to Unknown

**Files**

20.png	551 KB	2013-10-19	Giovanni Manghi
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