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Subject: Re: plot GRIB2 data as an image  
Posted by [K. Bowman](#) on Fri, 19 May 2006 14:17:52 GMT  
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In article <1148030998.881913.176720@g10g2000cwb.googlegroups.com>, "JaneHurley" <jane.hurley@exeter.ox.ac.uk> wrote:

> I'm trying to load in some GRIB2 formatted data in the hopes of  
> producing an image of cloud top heights. I've decoded the data into a  
> .c format file, using grib\_api-0.7.2 as instructed by the folks at  
> ECMWF, but can't seem to do anything with it! Basically, all I want to  
> do with the data is to take the GRIB2 file that I have, decode it, and  
> then use IDL to plot a global map of the data.  
>  
> Would love some insight! Does anyone have something that will do this  
> or any insight that could help?  
>  
> Thanks in advance!  
> Jane Hurley

I use the wgrib utility from the Climate Prediction Center to convert GRIB files to plain binary.

<http://www.cpc.ncep.noaa.gov/products/wesley/wgrib.html>

Then read the binary file into IDL.

wgrib let's you parse the GRIB file and extract only the parts that you need. It will also produce a readable inventory of the GRIB file.

Ken Bowman

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Subject: Re: plot GRIB2 data as an image  
Posted by [Paul Van Delst\[1\]](#) on Fri, 19 May 2006 15:07:21 GMT  
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Kenneth Bowman wrote:

> In article <1148030998.881913.176720@g10g2000cwb.googlegroups.com>,  
> "JaneHurley" <jane.hurley@exeter.ox.ac.uk> wrote:  
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```

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```

There's also a grib2nc converter that produces a netCDF file (that is easily readable in IDL). I have a generic reader for netCDF files if the OP is interested (examples below)

paulv

One netcdf file:

```

IDL> result=read_ncdf('amsua_n16.Control7.RadDiag_Stats.nc',d)
% Compiled module: READ_NCDF.
% Compiled module: IS_NCDF.
% Loaded DLM: NCDF.
      Number of dimensions      :    6
      Number of variables       :    9
      Number of global attributes :    7
      ID of unlimited dimension  :   -1
IDL> help, d, /struct
** Structure <8487e64>, 15 tags, length=120312, data length=120312, refs=1:
  NPREDICTORS  LONG           5
  NCHANNELS   LONG           15
  NFOVS       LONG           30
  NTIMES      LONG           123
  NVARIABLES  LONG            8
  STRLEN      LONG            80
  AIRMASSCOEFFICIENTS
      FLOAT   Array[5, 15, 123]
  CHANNEL     LONG   Array[15]
  FOV         LONG   Array[30]
  SCAN_DATA   FLOAT   Array[8, 15, 30]

```

```
SCAN_NSAMPLES LONG   Array[15, 30]
DATETIME        LONG   Array[123]
TIME_DATA       FLOAT  Array[8, 15, 123]
TIME_NSAMPLES  LONG   Array[15, 123]
VARIABLENAMES  STRING Array[8]
```

and a different one:

```
IDL> print, read_ncdf('windsat_coriolis.SpcCoeff.nc',d)
```

```
% Compiled module: READ_NCDF.
```

```
% Compiled module: IS_NCDF.
```

```
% Loaded DLM: NCDF.
```

```
Number of dimensions   :    2
```

```
Number of variables    :   18
```

```
Number of global attributes :    8
```

```
ID of unlimited dimension :  -1
```

```
1
```

```
IDL> help, d, /struct
```

```
** Structure <848942c>, 20 tags, length=1680, data length=1680, refs=1:
```

```
N_CHANNELS    LONG        16
SDSL          LONG        20
RELEASE       LONG         6
VERSION       LONG         2
SENSOR_DESCRIPTOR
  STRING      Array[16]
SENSOR_TYPE   LONG      Array[16]
NCEP_SENSOR_ID LONG      Array[16]
WMO_SATELLITE_ID
  LONG        Array[16]
WMO_SENSOR_ID LONG      Array[16]
SENSOR_CHANNEL LONG      Array[16]
FREQUENCY     DOUBLE     Array[16]
WAVENUMBER    DOUBLE     Array[16]
PLANCK_C1     DOUBLE     Array[16]
PLANCK_C2     DOUBLE     Array[16]
BAND_C1       DOUBLE     Array[16]
BAND_C2       DOUBLE     Array[16]
POLARIZATION  LONG      Array[16]
IS_SOLAR_CHANNEL
  LONG        Array[16]
COSMIC_BACKGROUND_RADIANCE
  DOUBLE     Array[16]
SOLAR_IRRADIANCE
  DOUBLE     Array[16]
```

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Paul van Delst      Ride lots.  
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Eddy Merckx