
Subject: Re: plotting missing values

Posted by [Paul Van Delst\[1\]](#) on Wed, 04 Dec 2013 16:58:23 GMT

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Hello,

On 12/04/13 11:22, David Fanning wrote:

> Paul van Delst writes:

>

>>> I'd have to have a look. Can you send me a file of the type you think
>>> doesn't work well with the software? I'll have a look and see how much
>>> time I think it will take to make the software compatible with the file.

>>

>> Done.

>

> The netCDF4 file you sent me can be browsed with the H5_Browser supplied
> with IDL. If the good folks at ExelisVis would give me the code for that
> browser, I'd fix it so that it worked more intuitively. ;-)

>

> So, I guess the question is, do we need a better HDF5/netCDF4 browser or
> do we just need a better way to get at the data in these files? I
> haven't yet looked at Mike Galloy's routines, but these are generally
> extremely reliable for these kinds of things.

Based on the to-and-fro about HDF5, I tried the following:

```
IDL> result=h5_parse('amsua_metop-a.SpcCoeff.nc',/read_data)
```

and bugger me if it didn't work, making all the groups accessible:

```
IDL> help, result
```

```
** Structure <1e95a58>, 14 tags, length=33952, data length=33548, refs=1:
```

```
  _NAME      STRING  'amsua_metop-a.SpcCoeff.nc'
```

```
  _ICONTYPE   STRING  'hdf'
```

```
  _TYPE       STRING  'GROUP'
```

```
  _FILE       STRING  'amsua_metop-a.SpcCoeff.nc'
```

```
  _PATH       STRING  '/'
```

```
  _COMMENT    STRING  ''
```

```
  SPCCOEFF    STRUCT  -> <Anonymous> Array[1]
```

```
  WRITE_MODULE_HISTORY
```

```
    STRUCT  -> <Anonymous> Array[1]
```

```
  CREATION_DATE_AND_TIME
```

```
    STRUCT  -> <Anonymous> Array[1]
```

```
  RELEASE     STRUCT  -> <Anonymous> Array[1]
```

```
  VERSION     STRUCT  -> <Anonymous> Array[1]
```

```
  TITLE       STRUCT  -> <Anonymous> Array[1]
```

```
  HISTORY     STRUCT  -> <Anonymous> Array[1]
```

```
  COMMENT     STRUCT  -> <Anonymous> Array[1]
```

```
IDL> help, result.spccoeff
** Structure <208a1e8>, 19 tags, length=33032, data length=32628, refs=2:
_NAME      STRING  'spccoeff'
_ICONTYPE   STRING  "
_TYPE       STRING  'GROUP'
_FILE       STRING  'amsua_metop-a.SpcCoeff.nc'
_PATH       STRING  '/'
_COMMENT    STRING  "
BAND_C1     STRUCT  -> <Anonymous> Array[1]
BAND_C2     STRUCT  -> <Anonymous> Array[1]
CHANNEL_FLAG STRUCT  -> <Anonymous> Array[1]
COSMIC_BACKGROUND_RADIANCE
              STRUCT  -> <Anonymous> Array[1]
FREQUENCY   STRUCT  -> <Anonymous> Array[1]
PLANCK_C1   STRUCT  -> <Anonymous> Array[1]
PLANCK_C2   STRUCT  -> <Anonymous> Array[1]
SENSOR_CHANNEL STRUCT  -> <Anonymous> Array[1]
SOLAR_IRRADIANCE
              STRUCT  -> <Anonymous> Array[1]
WAVENUMBER  STRUCT  -> <Anonymous> Array[1]
ACCOEFF     STRUCT  -> <Anonymous> Array[1]
N_CHANNELS  STRUCT  -> <Anonymous> Array[1]
SENSORINFO  STRUCT  -> <Anonymous> Array[1]
```

```
IDL> help, result.spccoeff.accoeff
** Structure <1d538e8>, 13 tags, length=14608, data length=14424, refs=2:
_NAME      STRING  'accoeff'
_ICONTYPE   STRING  "
_TYPE       STRING  'GROUP'
_FILE       STRING  'amsua_metop-a.SpcCoeff.nc'
_PATH       STRING  '/spccoeff'
_COMMENT    STRING  "
A_EARTH     STRUCT  -> <Anonymous> Array[1]
A_PLATFORM  STRUCT  -> <Anonymous> Array[1]
A_SPACE     STRUCT  -> <Anonymous> Array[1]
SENSOR_CHANNEL STRUCT  -> <Anonymous> Array[1]
N_CHANNELS  STRUCT  -> <Anonymous> Array[1]
N_FOVS      STRUCT  -> <Anonymous> Array[1]
SENSORINFO  STRUCT  -> <Anonymous> Array[1]
```

```
IDL> help, result.spccoeff.accoeff.sensorinfo
** Structure <1e82768>, 20 tags, length=9976, data length=9876, refs=2:
_NAME      STRING  'sensorinfo'
_ICONTYPE   STRING  "
_TYPE       STRING  'GROUP'
_FILE       STRING  'amsua_metop-a.SpcCoeff.nc'
_PATH       STRING  '/spccoeff/accoeff'
```

```

_COMMENT      STRING  "
NOISE         STRUCT  -> <Anonymous> Array[1]
POLARIZATION_TYPE
              STRUCT  -> <Anonymous> Array[1]
SATELLITE_NAME STRUCT  -> <Anonymous> Array[1]
SENSOR_CHANNEL STRUCT  -> <Anonymous> Array[1]
SENSOR_ID     STRUCT  -> <Anonymous> Array[1]
SENSOR_NAME   STRUCT  -> <Anonymous> Array[1]
SENSOR_TYPE   STRUCT  -> <Anonymous> Array[1]
USE_FLAG      STRUCT  -> <Anonymous> Array[1]
WMO_SATELLITE_ID
              STRUCT  -> <Anonymous> Array[1]
WMO_SENSOR_ID STRUCT  -> <Anonymous> Array[1]
DL_STRLEN     STRUCT  -> <Anonymous> Array[1]
N_CHANNELS    STRUCT  -> <Anonymous> Array[1]
N_FOVS        STRUCT  -> <Anonymous> Array[1]
SL_STRLEN     STRUCT  -> <Anonymous> Array[1]

```

And the data is there:

```

IDL> help, result.spccoeff.frequency
** Structure <1ea1388>, 18 tags, length=856, data length=848, refs=2:
_NAME      STRING  'Frequency'
_ICONTYPE   STRING  'binary'
_TYPE       STRING  'DATASET'
_FILE       STRING  'amsua_metop-a.SpcCoeff.nc'
_PATH       STRING  '/spccoeff'
_DATA       DOUBLE  Array[15]
_NDIMENSIONS LONG      1
_DIMENSIONS ULONG64  Array[1]
_NELEMENTS  ULONG64      15
_DATATYPE   STRING  'H5T_FLOAT'
_STORAGE_SIZE ULONG      8
_PRECISION  LONG      64
_SIGN       STRING  "
LONG_NAME    STRUCT  -> <Anonymous> Array[1]
DESCRIPTION  STRUCT  -> <Anonymous> Array[1]
UNITS        STRUCT  -> <Anonymous> Array[1]
_FILLVALUE   STRUCT  -> <Anonymous> Array[1]
DIMENSION_LIST STRUCT  -> <Anonymous> Array[1]

```

```

IDL> print, result.spccoeff.frequency._data
23.800904    31.400728    50.300069    52.799890
53.596155    54.400633    54.940002    55.499802
57.290327    57.290327    57.290327    57.290327
57.290327    57.290327    88.997000

```

Yay.

So I guess netcdf4 files are just hdf5 files with a fancier name?

cheers,

paulv
