Subject: Finding pixel values of NETCDF image based on lat/lon
Posted by Marta Yebra on Tue, 22 Jul 2014 03:46:22 GMT
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Hi all,

I am just introducing myself to NETCDF format and I have been able to read and access the data but Now I need to extract a time-serie of the values for a point location (lat/lon) and I do not know how to do it.

This is my piece of bad coding :):

```
 filename='C:\UserData\yebram\GPP\2014516145028EnsembleGPP_GL .nc'
    file_sites='C:\UserData\yebram\GPP\Sites_locations.csv'

    ;1. Open the file and assign it a file ID

    NCDF_Id = ncdf_open(filename)

    ;When you are completely through with the file you should close it using the ncdf_close, fileID command.

    ;2. Find the number of file attributes and datasets (or variables). The information will be contained in the structure variable that we have named 'fileinq_struct',
    ;but you may give it any name you wish so long as you use the proper record names.

    fileinq_struct=ncdf_inquire(NCDF_Id)

    Ndims=fileinq_struct.Ndims ;The number of dimensions defined for this NetCDF file.
    nvars = fileinq_struct.nvars ;The number of variables defined for this NetCDF file.
    ngatts = fileinq_struct.ngatts ;The number of global attributes defined for this NetCDF file
    RecDim=fileinq_struct.RecDim; The ID of the unlimited dimension, if there is one, for this NetCDF file. If there is no unlimited dimension, RecDim is set to -1.

    ; retrieve GPP data
    ; units = "kg m-2 s-1";
    ; _FillValue = -9999.0f; // float
    ; float gpp(time=360, lat=360, lon=720);
    nameGPP='gpp'
    NCDF_VARID_GPP = NCDF_VARID(NCDF_Id, nameGPP)
    NCDF_VARGET, NCDF_Id, NCDF_VARID_GPP, GPP
    GPP[where(GPP eq -9999)] = !VALUES.F_NAN

    ; retrieve long data
    ; units = "degrees_east";
    nameLon='lon'
    NCDF_VARID_lon = NCDF_VARID(NCDF_Id, nameLon)
```

```
NCDF_VARGET, NCDF_Id, NCDF_VARID_lon, Lon
Lon[where(Lon eq -9999)] = !VALUES.F_NAN

; retrieve lat data
; units = "degrees_north";
nameLat='lat'
NCDF_VARID_lat = NCDF_VARID(NCDF_Id, nameLat)
NCDF_VARGET, NCDF_Id, NCDF_VARID_lat, lat
lat[where(lat eq -9999)] = !VALUES.F_NAN

; retrieve time data
; units = "days since 1582-10-14 00:00:00";
; calendar = "standard";

nameTime='time'
NCDF_VARID_Time = NCDF_VARID(NCDF_Id, nameTime)
NCDF_VARGET, NCDF_Id, NCDF_VARID_Time, Time
Time[where(Time eq -9999)] = !VALUES.F_NAN

;open file with coordinates for teh sites

my_data=read_csvok(file_sites)

sites=my_data.Name_site
Lat_sites=my_data.Lat
Lon_sites=my_data.Lon

find_lon=where(Lon EQ Lon_sites, countlon)
find_lat=where(Lat EQ Lat_sites, countLat)
```

but this cannot find anything since my coordinate is for example 41.160000 and that value is not in the NETCDF.

How can I select the pixel that contains my point?

Your help is very much appreciate.

Kind regards,

Marta
