Subject: Saving to netCDF
Posted by [mal3p](#) on Thu, 16 Jan 1997 08:00:00 GMT
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This is probably a no-brainer, but I don't have time right
now to figure how to do this: I'd like to be able to save variables-
including arrays and arrays of structures, to one of the public
domain scientific formats. Ideally, I would like to be able to "save"
the session's current variables to such a file.

Michael Lefsky

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Subject: Re: Saving to netCDF
Posted by [agraps](#) on Fri, 17 Jan 1997 08:00:00 GMT
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mal3p@faraday.clas.Virginia.EDU (Michael A. Lefsky) writes:

> This is probably a no-brainer, but I don't have time right
> now to figure how to do this: I'd like to be able to save variables-
> including arrays and arrays of structures, to one of the public
> domain scientific formats. Ideally, I would like to be able to "save"
> the session's current variables to such a file.

Actually I thought netCDF was a really nonintuitive format, so I
wouldn't call it a no-brainer. It seems unneccessarily complicated to
me. I spent a day or so trying to understand how reading and writing
in netCDF works.

I cannibalized one of my programs to give you this netCDF example. It
should work, but I haven't tested these code fragments, so no
guarantees. Here it goes.

Amara

Say you have a volume of data: call it "freqcube" dimensions float(x,y,f).
And say that you have a long string that describes the data, say "header"
And say that you want to create a netCDF file called "freq.nc"

;----------------------
;Write out netCDF data

```
;----------------------

;Create file
cd,'/tmp20/amara/'
newfile = 'freq.nc'

id_main = NCDF_CREATE(newfile,/CLOBBER)
IF (id_main eq -1) THEN BEGIN
     PRINT, 'Unable to create file ', newfile
     RETURN
END

;I will write out one attribute of "header" and one of "data".

;-----------------
;Header Definition
;-----------------

hsize = N_ELEMENTS(header)
dimheader = NCDF_DIMDEF(id_main, 'dimheader', /unlimited)
id_header = NCDF_VARDEF(id_main, 'header', dimheader, /char)

;--------------
;Data Definition
;--------------

sz = SIZE(freqcube)
xdim = sz(1)
ydim = sz(2)
zdim = sz(3)
xid = NCDF_DIMDEF(id_main,'x',xdim)
yid = NCDF_DIMDEF(id_main,'y',ydim)
zid = NCDF_DIMDEF(id_main,'z',zdim)
id_freq = NCDF_VARDEF(id_main,'freqcube',[xid,yid,zid],/FLOAT)

;End Definition
NCDF_CONTROL, id_main, /endef

print, ' '
print, 'Writing Variable Information..'
print, ' '

;------------
;Header Write
;------------

;Write header line into the one netCDF 'header' variable.
```

```
NCDF_VARPUT, id_main, id_header, header

;----------
;Data Write
;----------

print, ' '
print, 'Writing Variable Data..'
print, ' '
NCDF_VARPUT, id_main, id_freq, freqcube


NCDF_CLOSE, id_main
```

--

```
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 ************************************************************ *************
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Subject: Re: Saving to netCDF
Posted by R. Bauer on Sat, 18 Jan 1997 08:00:00 GMT
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if you want to share your netCDF data with others you should probably
look first at the conventions of the netCDF data format.

more information by
http://www.unidata.ucar.edu/packages/netcdf/index.html

R.Bauer