Subject: Re: experience with idl_grib package?
Posted by sarale on Wed, 14 May 2008 09:31:04 GMT
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On 12 Maj, 17:15, Bill Gallery <wgall...@aer.com> wrote:
> On May 8, 2:45 pm, sarale <sara.le...@gmail.com> wrote:
>
>> Dear group users,
>> I am rather new to IDL and completely new to the GRIB data format. I
>> have tried to figure out how to read GRIB data into IDL and have found
>> several packages on the web, seemingly all based on the rather old
>> wgrib c programme. The latest package I found at ITTs webpage by Andy
>> Pursch (http://www.ittvis.com/codebank/search.asp?FID=488), and it was
>> easy to install and seems to be running fine. My problem, however, is
>> that the documentation is quite poor and I cannot understand the
>> obejct structure created. For example, I cannot see how to identify
>> which parameter is in each "record", or what time of day it
>> represents. Also, I work with ECMWF data which apparently use
>> different parameter codes than the official WMO. Can anybody help with
>> some good advice on how to advance?
>> Yours sincerly,
>> Sara.
>
> Sara,
>
> I use the NCAR Command Language (ncl) package from NCAR
(http://www.ncl.ucar.edu/overview.shtml) to convert grib files to NetCDF
> format. I find NetCDF files much easier to use, with good support in
> IDL. After converting to NetCDF you can use ncdump (
http://www.unidata.ucar.edu/software/netcdf/docs/ncdump-man- 1.html) to get a
> summary of the file contents or use David Fanning new IDL NetCDF file
> browser (http://www.dfanning.com/fileio_tips/ncdf_browser.html) to
> view the contents.
>
> Note that the resulting NetCDF file will be two or three times larger
> than the grib file.
>
> ncl is available for most platforms, including Linux and Window
> (cygwin). The two ncl programs you want to use are:
> 1: ncl_filedump: like ncdump, dumps a summary of the grib file
> 2: ncl_convert2nc: converts a grib (grib1 or grib2) file to NetCDF
> format.
>
> I have used ncl_convert2nc on ECMWF files with good results.
>
> Good luck,
>
> Bill Gallery

> Atmospheric and Environmental Research, Inc.
> Lexington, MA

Dear Bill,
Thank you very much for your answer.
I have looked up the NetCDF format and I see that indeed there are some built-in procedures for handling it in IDL. But I cannot find any procedures that readily handle the imported data as geographic data - i.e. allwoing me to e.g. extract data for a sub-area of the original map. I can get the information about the dimensions on one hand and the data array on the other hand, but I would imagine that there were some kind of "handles" ready to further manipulate the data - are there?
I have by now "cracked" the GRIB code and understood the data structure returned by the IDL_GRIB procedures, but I am reluctant to start writing procedures for handling the data before I make sure there isn't already such code available (assuming that I am not the only one in need of this type of operations and that there are better programmers than me out there...). It would seem worth the trouble installing the NetCDF library to convert GRIB to NetCDF if that would provide me with more data handling procedures than merely reading metadata and data.
Maybe I have too high expectations as to what IDL can do?
Sara.