
Subject: Re: Code to convert grib spherical harmonic coefficients to gridded lat/lon
Posted by [Jim Pendleton, ITT Vi](#) on Fri, 30 Nov 2007 16:40:33 GMT

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"Bill Gallery" <wgallery@aer.com> wrote in message
news:3b0f1760-5871-4e0f-a20c-3a6a948f9db6@o42g2000hsc.google groups.com...
> On Nov 29, 5:41 pm, "Kenneth P. Bowman" <k-bow...@removethis.tamu.edu>
> wrote:
>> In article
>> <30b87d0d-e14a-4c09-abca-31ed7971f...@g30g2000hsb.googlegroup s.com >,
>> Bill Gallery <wgall...@aer.com> wrote:
>>
>>> I have some ECMWF grib files where the data is stored as spherical
>>> harmonics. Does anyone have idl code to convert the coefficients to
>>> gridded (lat/lon) data? Alternatively, do you have other programs to
>>> dump the data from the grib file, convert the spherical harmonics, and
>>> write it out? (I know there is a lot of stuff out there to handle
>>> grib files [ncl_convert2nc, wgrib, emos, PyNIO, ..] but I need someone
>>> with real experience to sort it out.
>>
>> The do-it-yourself approach is to use SPHEREPACK from NCAR
>>
>> <http://www.cisl.ucar.edu/softlib/SPHERE.html>
>>
>> You will have to figure out how to read the GRIB files also.
>> The wgrib utility can be used to convert the GRIB files to
>> plain binary files. The wgrib pages have some good examples
>> of how to extract a particular field from a GRIB file.
>>
>> Ken Bowman
>
> Ken, thanks. I'll check it out.
>
> BTW, there is now an add on (IDL_GRIB.zip) to IDL that reads grid
> files (idl 6.3 or higher). See:
> <http://www.ittvis.com/codebank/search.asp?FID=488>
> I've used it and it works fine.
>
> Bill Gallery
>

The IDL GRIB reader is also installable directly from the IDL 7.0 Eclipse
Workbench as a plug-in module, though it takes a little navigation to find
the option.

First, in Eclipse, select the menu entry Help/Software Updates->Find and
Install...

In the "Install/Update" dialog, select "Search for new features to install" and click the "Next>" button.

In the "Install" screen, select "ITT Visual Information Solutions" and click the "Finish" button.

In the "Updates" screen, select "ITT Visual Information Solutions" (again...) and click the "Next>" button.

Select the "IDL GRIB Reader 1.0.0" entry and click on the "I accept the terms in the license agreements" radio button before clicking the "Next>" button.

In the next dialog, click the "IDL GRIB Reader 1.0.0" entry (again...) before hitting the "Finish>" button.

Maybe in a future release of the Workbench, the number of hoops to jump through could be reduced.

Read the info files in the installation directory for a description of the use of the GRIB format reader (which is basically a wrapper to wgrib, if anyone is interested.)

Jim P.
