Subject: Re: Code to convert grib spherical harmonic coefficients to gridded lat/lon
Posted by Kenneth P. Bowman on Thu, 29 Nov 2007 22:41:09 GMT
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In article
<30b87d0d-e14a-4c09-abca-31ed7971fa23@g30g2000hsb.googlegroups.com>,
 Bill Gallery <wgallery@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

Subject: Re: Code to convert grib spherical harmonic coefficients to gridded lat/lon
Posted by wgallery on Fri, 30 Nov 2007 14:34:10 GMT
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On Nov 29, 5:41 pm, "Kenneth P. Bowman" <k-bow...@removethis.tamu.edu>
wrote:
> In article
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>
> 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'v used it and it works fine.

Bill Gallery

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...
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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.