Subject: Re: Uniting IDL and Matlab
Posted by Jan Kristian Jensen on Tue, 18 Apr 2006 07:51:44 GMT
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ChristopherFlorio@gmail.com wrote:
> I'm currently at a point where I have to make an IDL program generate a
> Matlab friendly array of data points.

My strong recomondation is to save the data in a format independent of both IDL and matlab, but supported by both. HDF or NETCDF may be good candidates. Unfortunately, the IDL routines and documentation for reading and writing scientific data formats are rather obscure, but searching this this group should get you started all right :)

If you find this to cumbersome for some specific problem at hand, you may try saving the data as a text file. It is very straightforward to read and write a 2D array this way in IDL and matlab.

Or you may write the data as a 1D array which after reading can be reformed into the original dimemsions. Both binary and ascii can be written and read this way. Writing binary data in IDL and reading them with matlab _*might*_ just work right away, or else you need to sort out some more details (little v.s. big endian etc. etc.).

You could also check out the "Fortran file formats" in the IDL documentation, and see if you find something simular in matlab. If you get this far, I would recomend you to have another look at the HDF or NETCDF formats.

Good luck!

Jan
--
Jan Kristian Jensen

Remove the obvious from the email adress to email me.

Subject: Re: Uniting IDL and Matlab

Posted by btt on Tue, 18 Apr 2006 13:29:10 GMT
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ChristopherFlorio@gmail.com wrote:
> I'm currently at a point where I have to make an IDL program generate a
> Matlab friendly array of data points. I don't know much about Matlab
> and the last postings here, on the subject of IDL/Matlab exchange are
> out of date. If anyone has any information about how to simplify the
> process, let me know.
>
Hi,

Long ago Nick Wolfe and I wrote a simple IDL <-> MatLab generic file exchange system. It worked fine for use to share simple arrays and the like. It handles the row vs. column major and big vs. little endian issues. If you send me an email I will post it to you.

You might have better success using the scientific data format approach that Jan suggested. You'll know best when you try it.

Cheers,
Ben

Subject: Re: Uniting IDL and Matlab
Posted by George N. White III on Tue, 18 Apr 2006 22:24:54 GMT
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On Tue, 18 Apr 2006, Ben Tupper wrote:

> ChristopherFlorio@gmail.com wrote:
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> You might have better success using the scientific data format approach that
> Jan suggested. You'll know best when you try it.

People are using data from NASA SeaDAS, an IDL app that generates hdf

(ver. 4) files, with Matlab and R (the S+ clone). AFAIK, Matlab can read hdf(4 and 5) while R has only the hdf5 module so h4toh5 is needed. If you have the choice, hdf ver. 5 is recommended for new implementations.

--
George N. White III <aa056@chebucto.ns.ca>
