Subject: Re: IDL structure to HDF-5
Posted by David Fanning on Wed, 07 Nov 2007 21:37:15 GMT
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Wayne Landsman writes:

> Interestingly, I have been just looking for something similar for
> HDF-5 files. You can read an HDF5 file into an IDL structure using
> a single call to H5_PARSE. But what I haven't found anywhere is
> the capablity to write that same structure back to an HDF-5 file
> without considerable programming. --Wayne

Humm. Interesting, indeed. My client wants a fair amount
of information packed into the FITS file, as that is
what they are used to. I've been trying to sell HDF as
an alternative, since I am more certain about how
to get the data out of there. (Simply more experience
with it than with FITS.)

Here is my situation. I process an image, which results
in 24-separate spectra. Each spectra needs to be fit with
three separate Gaussians. (I'm waving my hands a bit here,
because I haven't figured out how to do this part yet.) I need
to save the original image, the processed image, the spectra,
and the fitting parameters and other equations.

Would you recommend FITS or HDF for such a project?

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: IDL structure to HDF-5
Posted by Loren Anderson on Thu, 08 Nov 2007 14:36:22 GMT
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> Here is my situation. I process an image, which results
> in 24-separate spectra. Each spectra needs to be fit with
> three separate Gaussians. (I'm waving my hands a bit here,
> because I haven't figured out how to do this part yet.) I need
> to save the original image, the processed image, the spectra,
> and the fitting parameters and other equations.

>
> Would you recommend FITS or HDF for such a project?

Until someone more qualified than me answers this, here is a link to the FITS standards: http://fits.gsfc.nasa.gov/.

You centainly could put all this data in to a FITS binary table using the routines in Wayne's library: http://idlastro.gsfc.nasa.gov/. The process is relatively straghtforward. If you are working with astronomers (I'm guessing here), we do like our FITS files, and have a number of astronomy-specific tools for viewing them already.

Back to the OP's question, can't you just use writefits? I work with FITS cubes almost exclusively, and that's what I use for such mapped spectra. writefits adjusts the header appropriately for 3D data.

-Loren

Subject: Re: IDL structure to HDF-5
Posted by David Fanning on Thu, 08 Nov 2007 15:20:33 GMT
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Loren Anderson writes:

> You centainly could put all this data in to a FITS binary table using
> the routines in Wayne's library: http://idlastro.gsfc.nasa.gov/. The
> process is relatively straghtforward. If you are working with
> astronomers (I'm guessing here), we do like our FITS files, and have a
> number of astronomy-specific tools for viewing them already.

I'm becoming a big fan of the NASA IDL routines. Every time I use one, I'm impressed all over again with the quality of the code.

Have you ever gotten a T-shirt, Wayne, for all your effort? I was called a couple of months ago about my "size," but I'm still waiting. The good folks in Boulder are probably holding on to it until they see what I write about the new IDL Eclipse development environment. :-)

Cheers,

David

P.S. I'm looking forward to the big "preview" of

the IDLDE next week in Boulder. Should be exciting.
I can't wait to hear what other people think about
it. :-)

--
David Fanning, Ph.D.
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