Subject: Projected Image Data Posted by David Fanning on Wed, 27 Feb 2002 23:55:26 GMT

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Folks,

Do any of you netCDF-types know of any "standards" regarding how to store already-projected satellite image data in netCDF files? Are lat/lon points typically stored with the image, or just metadata that allows you to navigate the image? We are looking for some ideas that make sense. Most of the images we are working with have already been projected into two or three specific map projections.

Thanks,

David

--

David W. Fanning, Ph.D. Fanning Software Consulting

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Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Projected Image Data

Posted by Liam E. Gumley on Thu, 28 Feb 2002 15:43:27 GMT

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David Fanning wrote:

- > Do any of you netCDF-types know of any "standards"
- > regarding how to store already-projected satellite image
- > data in netCDF files? Are lat/lon points typically
- > stored with the image, or just metadata that allows
- > you to navigate the image? We are looking for some
- > ideas that make sense. Most of the images we are
- > working with have already been projected into two
- > or three specific map projections.

You can search the discussions among netCDF users at

http://www.unidata.ucar.edu/packages/netcdf/

See "Searches" towards the bottom of the page. Try searching for "satellite" or "projection".

That said, I'm not aware of any well documented open (i.e. non proprietary) standards for describing a satellite projection in a netCDF file. I believe GeoTIFF provides some of these features, and someone in the GIS field would have a better understanding of that subject than I do.

I'm always happiest to work with satellite data where a lat/lon has been defined for each pixel, and the satellite data remains in the native "sensor" projection. Then I am free to resample it to whatever map projection I choose. Lately I have been using some very nice C routines from the National Snow and Ice Data Center (NSIDC) for this purpose:

http://eosdb.ssec.wisc.edu/modisdirect/

One of these days I intend to write up a guide to remapping satellite images using the NSIDC routines in conjunction with IDL.

Cheers, Liam. Practical IDL Programming http://www.gumley.com/

Subject: Re: Projected Image Data Posted by K. Bowman on Thu, 28 Feb 2002 15:47:32 GMT View Forum Message <> Reply to Message

In article <MPG.16e71fd78ddf401f989826@news.frii.com>, David Fanning <david@dfanning.com> wrote:

- > Folks,
- >
- > Do any of you netCDF-types know of any "standards"
- > regarding how to store already-projected satellite image
- > data in netCDF files? Are lat/lon points typically
- > stored with the image, or just metadata that allows
- > you to navigate the image? We are looking for some
- > ideas that make sense. Most of the images we are
- > working with have already been projected into two
- > or three specific map projections.

Have you tried the netCDF web site and mailing list?

http://www.unidata.ucar.edu/Community.html

Many netCDF users don't use IDL, but there may be existing standards for satellite images.

Subject: Re: Projected Image Data Posted by James Kuyper on Thu, 28 Feb 2002 16:05:57 GMT View Forum Message <> Reply to Message

Liam E. Gumley wrote:

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- > I'm always happiest to work with satellite data where a lat/lon has been
- > defined for each pixel, and the satellite data remains in the native
- > "sensor" projection. Then I am free to resample it to whatever map
- > projection I choose. Lately I have been using some very nice C routines
- > from the National Snow and Ice Data Center (NSIDC) for this purpose:

>

> http://eosdb.ssec.wisc.edu/modisdirect/

> > One

- > One of these days I intend to write up a guide to remapping satellite
- > images using the NSIDC routines in conjunction with IDL.

I'm looking forward to that; I've been spending most of the last month developing an IDL widget-based application (specialized for my own particular needs) for mapping MODIS image data.