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Subject: Re: Projected Image Data

Posted by [Vincent Schut](#) on Thu, 28 Feb 2002 08:31:56 GMT

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David Fanning 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? <-snap->

About netCDF files I don't know exactly, but I suppose that doesn't make much of a difference. I do know that for example ENVI's generic file storage format is some kind of raw data format for the image file, without any metadata (just the pixel values in one of the 3 supported interlaced orders), with a second header file to store the metadata. The image file has no extension by default, the header file has the same name as the image file plus '.hdr'. In it, amongst others the projection data are stored, in a lat/lon projection case this would mean for example the name and datum of the projection (for example lat/lon wgs84), the coordinates of the cornerpoints of the image (in degrees) and eventually the pixel size (also in degrees). That should be enough to navigate your image, overlay them with each other or vector data, etc.

a typical example for an envi header file has been pasted hereunder. Note that there is some overlapping information, as envi uses several items in its header file to store this kind of information, one for the projection data (map info), one for the corner coordinates and one for the pixel size. You don't have to use all of them to be able to navigate and overlay your images, though.

pasted part:

```
map info = {Geographic Lat/Lon, 1.0000, 1.0000, 92.0000, 29.0000,  
0.00892857, 0.00892857, WGS-84, units=Degrees}
```

```
geo points = {  
    1.00000, 1.00000, 29.00000, 92.00000, 8737.00000, 1.00000,  
    29.00000, 170.00000, 1.00000, 4593.00000, -12.00000, 92.00000,  
    8737.00000, 4593.00000, -12.00000, 170.00000}
```

```
pixel size = {0.008929, 0.008929, units=Degrees}
```

Cheers,  
Vincent.

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