
Subject: Understanding GPD Files

Posted by [David Fanning](#) on Fri, 17 Jul 2009 18:56:22 GMT

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Folks,

The first order of business when starting a project that will involve satellite data is to define some region of the Earth that you are interested in. Then you find satellite data that passes over or through that area.

This data is often in a different map projection or resolution than you wish to use in your study, so you are forced to grid the satellite data into a common map projection and resolution so you can work with it.

Tools are often provided that help with the gridding step. At NSIDC we often use, for example, mapx or ms2gt. These tools require the use of a "gpd" file that describes the particular map projection you wish to use, and the location and resolution of the grid you wish to use on that map projection.

When I first starting working with satellite data at NSIDC I didn't have the first clue about gpd files and how they worked, and--especially--how to create a new one for the particular region of the globe I wanted to study. I would usually walk down the hall to the office of the "gpd guru" and try to glean some insight from him.

It would be kind of like listening to me speak German in a thick Tex-Mex accent. That is to say, not a language you would immediately recognize.

In any case, over the months I've worked there, I've emerged somewhat from the muck and mess of my own map projection ignorance and I have been down enough box canyons and blind alleys, not to mention into the undocumented bowels of IDL's map projection software, that I am beginning to at least vaguely perceive the lay of the land.

To that end, I am offering up a new tool that I really couldn't live without in my professional work. Although I think it is safe to say most of the "professionals" I know still poo-poo it. Whatever. If I were bashful about displaying my ignorance I wouldn't be in this business.

I will say this, most of what I know about map projections came from building this sucker. I call it GPD_Viewer. You can read about it here:

http://www.dfanning.com/map_tips/gpdviewer.html

It will probably be of limited value to those of you who are not using NSIDC data. But it might be of some use to those of you who are.

Cheers,

David

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
