Subject: Re: Drawing satellite pixels on maps?
Posted by Philippe Peeters on Fri, 22 Nov 1996 08:00:00 GMT
View Forum Message <> Reply to Message

David Fanning wrote:
>
> Philippe Peeters <Philippe.Peeters@oma.be> writes:
>
>> [Question about rendering split pixels that I can't answer without research.]
>>
>> And now a question related to the same topic. How can I resample the
>> irregular ground pixels onto a regular (square or rectangle) grid?
>
> The easiest way to resample irregular ground pixels to a regular
> grid is to use the TRIANGULATE and TRIGRID routines that are
> built into IDL. The method is straightforward: the TRIANGULATE
> procedure takes your sample locations and returns a set of
> Delaunay triangles constructed from the locations. Passing the
> locations, the data itself, and the triangles to the TRIGRID function
> results in a gridded data set. You can specify the grid intervals.
>
> Depending upon the geographical extent of your data locations,
> you may prefer to perform spherical gridding (i.e. use spherical
> triangles rather than flat, 2D triangles). Be aware that the
> TRIANGULATE and TRIGRID routines are capable of this as
> well, although different keywords need to be used (e.g, see
> the SPHERE keyword to TRIANGULATE).
>

I have tried TRIANGULATE and TRIGRID. The plane interpolation seems to
work ok if I only use the value (Z) at the center of each polygons and
if polygons are far from the poles. I have also tried the spherical
triangle gridding. It took around one hour of processing with the final
error message :

% TRIGRID: Points are co-linear, no solution.

I have tried to process the same FVALUE as the plane case, i.e. evaluate
at the center of each polygon. The total number of points to be
triangulate is around 50,000 for a full Earth coverage. I guess it's too
much for trigrid.

--
Philippe Peeters

 --- --------------
Belgian Institute for Space Aeronomy | Tel : +32-2-373.03.81
Institut d'Aeronomie Spatiale de Belgique| Fax : +32-2-374.84.23
3 Avenue Circulaire | Email :

Philippe.Peeters@oma.be
B-1180 Brussels, Belgium |