Subject: Subset point data using shape file
Posted by Justin Beckers on Mon, 01 Jul 2013 12:58:56 GMT
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Hello,
I am very new to the group and somewhat new to IDL.
I am trying to subset geographic point data using a shapefile. The points are organized into tracks. The shape is an irregularly shaped polygon and the tracks 'cross over' the shape in many different orientations.

I only want the points from each track that are inside the shapefile to be processed and exported.I have hundreds of tracks for a single shapefile.

Accessing the polygons vertices and bounds has been relatively straightforward, I am just unsure of how to proceed to subset the data using this information. I did subset the tracks using the latitude range of the bounding box, but this still leaves me with points that are outside my shapefile (e.g. for tracks that cut diagonally across near the top left of the bounding box/shape)

This is a relatively simple task in ESRI ArcGIS or similar (at least track by track), but feel that it should be possible to do this in IDL. If not, I will just use ArcGIS python bindings.

Any help, thoughts, advice would be appreciated.
I am using IDL 8.2, no ENVI license.

Cheers

Justin

Subject: Re: Subset point data using shape file
Posted by David Fanning on Mon, 01 Jul 2013 13:13:30 GMT
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Justin Beckers writes:

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You can find an article, with a couple of functions, for finding whether
a point is inside a polygon here:

http://www.idlcoyote.com/tips/point_in_polygon.html

Ronn Kling also has an algorithm that I hear is very good:

http://www.rlkling.com/cool-stuff.htm

Cheers,

David

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

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Subject: Re: Subset point data using shape file
Posted by Justin Beckers on Wed, 03 Jul 2013 11:17:13 GMT
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Thanks for your reply and help and for the Coyote suite.
Cheers

Justin

On Monday, July 1, 2013 3:13:30 PM UTC+2, David Fanning wrote:
> Justin Beckers writes:
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> David
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