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Subject: Re: Apply a shapefile to raster images in IDL  
Posted by [David Fanning](#) on Mon, 04 Oct 2004 11:21:37 GMT  
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Jenny writes:

- > I'm a novice in IDL, not sure if my questions are totally improper. I
- > want to use an Arcview format shapefile as a mask, to a huge number of
- > raster images, which are in a polar stereographic grid format with
- > separate image data files and lat/lon files. I would really appreciate
- > if you could give me any hint about the following questions:
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- > 1. How to read the shapefile into an IDL variable?
- > 2. How to tailor the shapefile to my raster image grid?
- > 3. If the above questions are not proper or impossible in IDL, would
- > you give me some suggestions to do the work?

It's not that it is impossible to do 1 and 2 in IDL, it certainly is possible. The problem is that it is impossible to tell a novice IDL user how to do it. :-(

Here is a suggestion. Go to the RSI User Contribution site and search on "shapefile". There is a shapefile viewer there written by Jim Pendleton. I'd study that code a bit, and see if it doesn't at least go a little ways towards answering some of your questions.

We need a good shapefile example somewhere. Does anyone have anything I could clean up a bit and make available on my web page?

Cheers,

David

--

David W. Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

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Subject: Re: Apply a shapefile to raster images in IDL  
Posted by [Kelly Dean](#) on Mon, 04 Oct 2004 20:17:15 GMT  
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It certainly can be done, but as David has pointed out, it is not trivial. The IDL shapefile read routine requires knowledge of IDL's Objects.

I use shapefiles to add the graphics to satellite imagery using IDL's shapefile read routines. See my image contribution to RSI's User Contributions at [www.rsinc.com](http://www.rsinc.com). I use the county.shp to add the Colorado county boundaries to the AVHRR imagery centered over Colorado.

To avoid the shapefile issue, I suggestion you use ArcView (or ArcGIS) and save the shapefile as an Excel spread sheet. Then within Excel, save the columns of latitude and longitude values as a text file and use the IDL's OPEN/READ routines to read the text file and save the values in separate latitude and longitude arrays. Then use the IDL's MAP\_COORD routine to convert the latitude and longitude values to window coordinates, assuming the polar stereographic grid you desire is the same as IDL's MAP\_SET, /Stereo --- just a suggestion. However, learning to read shapefiles directly with the IDL objects is the best and long term why to go. The opportunities are endless.

Kelly Dean  
Colorado State University  
Fort Collins, Colorado

Jenny wrote:

> Dear Listers,  
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> Thank you in advance,  
> Jenny

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Subject: Re: Apply a shapefile to raster images in IDL  
Posted by [envi35](#) on Mon, 04 Oct 2004 22:38:39 GMT  
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Hi David,  
Thank you very much for your reply. I've taken a quick look at Jim Pendleton's code. you are right, as an IDL novice, I don't think I can do it within the timeline. I guess I have to try something else, like rasterize the shapefile in ENVI and then interpolate it to my raster image grid...

Regards, Jenny

David Fanning <david@dfanning.com> wrote in message  
news:<MPG.1bcae028e3b99943989692@news.frii.com>...

> Jenny writes:

>

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> David

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Subject: Re: Apply a shapefile to raster images in IDL  
Posted by [envi35](#) on Wed, 06 Oct 2004 01:49:26 GMT

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Hi Kelly,

Thanks for your suggestion. I'd like to try it. But my polar  
stereographic grid is a special one. Can I set parameters such as the  
origin of the projection and the grid size (resolution) with map\_set  
in IDL? Sorry, I've looked the online help of map\_set in IDL, but I'm  
still not sure. Are P0lat and P0lon in map\_set the origin of the  
projection?

Many thanks, Jenny

Kelly Dean <krdean@lamar.colostate.edu> wrote in message  
news:<4161afcf@news.ColoState.EDU>...

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Subject: Re: Apply a shapefile to raster images in IDL

Posted by [Puneeth Shankar](#) on Mon, 21 Mar 2016 07:37:06 GMT

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Hi,

while i'm able to overlay a polygon shapefile over raster(geotiff) using imap as shown below:

```
imap,REFORM(ortho2[0,*,*]),/order,GEOTIFF=gtiff_VI_I_shrinked,RGB_TABLE=8  
imap,roi_shapefile,OVERPLOT=1
```

I'm unable to do the same using MAP function, which replaces the functionality of imap. My objective is to do this without using itools. Can this be done?

Regards,  
Puneeth

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