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Subject: Re: Objects in ENVI ROI files

Posted by [David Streutker](#) on Mon, 22 May 2006 16:56:45 GMT

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I don't have a huge amount of experience writing ROI-related code, but here's how I would go about it. (I'm assuming that you have a ENVI license as well, as many of these functions are ENVI-only.)

1. If necessary, use ENVI\_RESTORE\_ROIS to open an ROI file.
2. Use ENVI\_GET\_ROI\_IDS to get the ID of the ROI you're interested in.
3. Use ENVI\_GET\_ROI to get the indices associated with your ROI.

I'm not sure what your final goal is - this may be all you need. You can use ARRAY\_INDICES to convert the 1-D ROI indices to 2-D image coordinates and ENVI\_CONVERT\_FILE\_COORDINATES to get the geographic coordinates.

If you need a true polygon boundary object, you can use QHULL to find the boundary points (note that this creates a convex hull, which may not be optimal, depending on the shape of the ROI). You can then create an IDLgrPolygon or IDLanROI object, if that's what you need.

Hope that at least points you in the right direction. Much of it is covered in the \*ENVI\* help files.

-David

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Subject: Re: Objects in ENVI ROI files

Posted by [Bradley Wallet](#) on Tue, 23 May 2006 07:55:24 GMT

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Yes, I know how to do this. The problem is that I have multiple objects in the ROI file. I do not really need the polygon information, but I need which pixels in the ROI file associate with each object. Currently, I take the first pixel in the ROI, and I look for any other ROI pixels that are 4-point neighbors. Then, I take these pixels, and I find any ROI pixels that are 4-point neighbor. I repeat this until I have the all the pixels connected with the first pixel. Then, I pick another pixel that is not assigned to the first object, and I repeat the object growing routine. I then do this again and again until all the pixels in the ROI are assigned to an object, and I then have all the objects that are described by the ROI file. I am pretty good at writing code to work with ENVI and ENVI ROI files.

However, this just doesn't seem like the cleanest way to do it. ENVI ROI files store polygons. When you open the ROI file, the information is converted pixel x and y coordinates. I am looking for a way to

directly access the polygon information in the ROI file so I do not have to reconstruct the contained objects.

Brad

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Brad Wallet  
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Subject: Re: Objects in ENVI ROI files  
Posted by [Bradley Wallet](#) on Tue, 23 May 2006 07:57:20 GMT  
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Brad

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