Subject: Re: How to extract pixel values from a GeoTIFF using an Esri Shapefile
Posted by guillermo.castilla.ca on Mon, 03 Jan 2011 22:46:24 GMT
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Hi Paul,

If what you want is a mask where the pixels within each polygon have
as DN its ID, there is a simpler way which doesn't require the
IDLanROI class:

```
;Import GeoTIFF and create mask array
 img=READ_TIFF('some_multispectral.tif',GEOTIFF=geokeys,inter leave=2)
psz= mapinfo.ModelPixelSCALETAG[0] ; pixel size
x0= geokeys.ModelTiePointTag[3] - geokeys.ModelTiePointTag[0]*psz
y0= geokeys.ModelTiePointTag[4] + geokeys.ModelTiePointTag[1]*psz
; NB, x0 and y0 are respectively the easting and northing
; of the NW corner of the image
s= SIZE(img, /DIMENSIONS)
mask= LONARR(s)

;import shapefile
myshape= OBJ_NEW('IDLffShape', 'some_esri_multipolygone.shp')

; populate the mask (assumes is in the same projection
;and covers the same extent as the geotiff)
myshape->IDLffShape::GetProperty, N_ENTITIES=n
FOR i=0L, n-1 DO BEGIN
  feati=  myshape->IDLffShape::GetEntity(i)
  featix= Round((Reform((*feati.vertices)[0,*])-x0)/psz)
  featiy= Round((y0-Reform((*feati.vertices)[1,*]))/psz)
  featis= POLYFILLV(featix, featiy, ns, nl)
  IF featis[0] NE -1 THEN mask[featis]= feati.ishape +1
ENDFOR
```

If instead of the polygon ID you want to store in the mask the
thematic class to which the polygon belongs, you just add attr=iShp-
> IDLffShape::GetAttributes(i) in the beginning of the loop, replace in
the last line of the loop with mask[featis]= attr.(j) (where j is the
position in the dbf table of the field that contains the polygon
class).

Cheers

Guillermo