Subject: Problems with tying ROI's to image
Posted by Lauren Hunkins on Wed, 17 Jun 2009 21:50:24 GMT
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Hello All,

I'm currently an intern working at SETI Institute using IDL/ENVI and have ran into a few problems that my mentor is having trouble helping me with. Any help would be greatly appreciated.

I'm currently trying to create a program that prints out statistics from ROI's created by a geologist. I keep having an error message come up.

********** **********
class_stats_doit: An error has occurred during processing

Error: "Array dimensions must be greater than 0." The result may be invalid.
********** **********

I have read most of the posts that contain this error message and haven't been able to find anything that will help me solve my problem.

My mentor and I came to the conclusion that the ROI was not being tied to the image. We tried using some sample code from ENVI help that simply created and defined an ROI, but when we opened the image the ROI was not present. It seemed like there were some discrepancies in the ENVI about exactly how the image and the ROI are tied together. I have included the code for the program I wrote, as well as the code from the book that didn't seem to do anything.

Thanks,
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```
pro clean_version
;Open file containing image
ENVI_OPEN_FILE, '/Volumes/SETI/PSP_006676_2045/
PSP_006676_2045_COLOR_SUBSET2_3.jp2',R_FID=fid1
envi_file_query, fid1, dims=dims, ns=ns, nl=nl
;Restore ROIs created by geologist
ENVI_RESTORE_ROIS, '/Users/Saphira/Desktop/ROI_TEXTURE_SUBSET2_3.roi'
ROI_ID = ENVI_GET_ROI_IDS(FID = fid1, NL=nl , NS=ns,
```

```
ROI_NAMES=roi_names, ROI_COLORS=roi_colors)
;Create a classification image from the ROIs
ENVI_DOIT, 'ENVI_ROI_TO_IMAGE_DOIT', CLASS_VALUES=class_values,
FID=fid1, $
  ROI_IDS=ROI_ID, OUT_NAME='ROI_IMAGE_4', R_fid= cfid
  envi_file_query, cfid, dims=cdims, nb=nb
  ;Calculate the Statistics from the Class image containing the ROI's
  ENVI_DOIT, 'CLASS_STATS_DOIT',class_DIMS=cdims, CLASS_FID=cfid,
CLASS_PTR=class_ptr, COMP_FLAG=2,$
  COV=cov, DMAX=dmax, DMIN=dmin, $
 FID=fid1, MEAN=mean, POS=pos, REP_NAME='ROI_STATS', $
 REPORT_FLAG=1, STA_NAME=sta_name, STDV=stdv
 ;Print the statistics for the ROIs
print, 'Minimum', dmin
print, 'Maximum', dmax
print, 'Standard Deviation', stdv
print, 'Mean', mean
print, 'Covariance', cov
;Delete all ROIs
ENVI_DELETE_ROIS, /all
end
 ------------------------------------------------------------ ------------------------------------------------------
pro envi_help_file
ENVI_SELECT, fid=fid
;
; Get the dimensions for this
; file and create an ROI
;
ENVI_FILE_QUERY, fid, dims=dims
roi_id = ENVI_CREATE_ROI(ns=ns, nl=nl, $
  color=4, name='Square')
;
; Define the square and add
; the polygon object to the ROI
;
xpts = [100, 200, 200, 100, 100]
ypts = [100, 100, 200, 200, 100]
ENVI_DEFINE_ROI, roi_id, /polygon, $
  xpts=xpts, ypts=ypts
end
```