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Subject: Re: Computing the average of a non-rectangular region in IDL

Posted by [deutsch](#) on Fri, 28 May 1993 23:03:10 GMT

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In article <1u5ruh\$k4o@skates.gsfc.nasa.gov>, gumley@ltpiris2.gsfc.nasa.gov (Liam Gumley) writes:

> Hey folks.

> I need to select a polygon of pixels in an image with the mouse, and then

> compute the mean value of the pixels within the polygon.

> Does anybody have an IDL procedure that will do this, or know here I can

> get one?

>

> Cheers,

> Liam.

>

The DEFROI() function does what you want. I have that function implemented as part of a image "roaming" program in IDL. It requires the ASTRONOMY library at present. If you have this and want to try it, drop me a note.

In any event, here is the bit of code that I'm using with DEFROI():

```
print,'Define new HII Region'
win_set,FrameWIN
reslt=DefROI(512,512,xverts,yverts,/noregion)
xverts=xverts*1./zoom+xmin-0.5
yverts=yverts*1./zoom+ymin-0.5
if (n_elements(ROIum) eq 0) then ROIum=0
  openw,funit,'ROI'+strn(ROIum,length=3,padchar='0')+'.dat',/ GET_LUN
  printf,funit,'; Region of Interest (ROI) Dump File'
  printf,funit,'; Polygon Information:
tmp=polyfillv(xverts+1.0,yverts+1.0,NAXIS1,NAXIS2)
  printf,funit,'NVERTS = ',strn(n_elements(xverts))
  printf,funit,'NPIXELS = ',strn(n_elements(tmp))
  printf,funit,'COUNTS = ',strn(total(image(tmp)))
  printf,funit,'; List of Vertices follows:'
  for qi=0,n_elements(xverts)-1 do printf,funit,xverts(qi),yverts(qi)
  close,funit & free_lun,funit & ROIum=ROIum+1
wait,1
```

where ZOOM is the zoom factor of the displayed image and XMIN and YMIN correspond to the lower left pixel of the overall image displayed in your window.

hope this helps...

cheers,  
Eric

Eric Deutsch  
University of Washington  
Department of Astronomy FM-20  
Seattle, WA 98195  
deutsch@astro.washington.edu or UWSPAN::JANUS::DEUTSCH

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