Subject: Re: Need Some Advice on Seperating Out Some Data
Posted by JD Smith on Wed, 09 Aug 2006 17:47:43 GMT
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On Tue, 08 Aug 2006 15:20:13 -0700, rdellsy wrote:

> I'm a tad confused about what you're suggesting. I'll try and work it
> out, but I'm still fairly new to IDL, so if you could give an IDL or
> pseudo-code example of what you're trying to explain, I would
> appreciate. If that's too much work, I understand, and I'll just try to
> puzzle it out on my own.

You might find much of what you need in the HISTOGRAM tutorial:

http://www.dfanning.com/tips/histogram_tutorial.html

But before you go that route, you might first try the CLUSTER function in IDL (which I just read up on). Here's an example using a fake clustered data set with 5 clusters. You'll probably have to experiment with the number of clusters.

JD

```
 tvlct,[255,0,0,0,255,255],[0,255,0,255,255,0],[0,0,255,255,0 ,255],1
n_clust=5

;; Make some flake clustered data
if n_elements(x) ne 0 then begin
   n=1000
   clust_fwhm=.2
   cposx=randomu(sd,n_clust) & cposy=randomu(sd,n_clust)
   cind=fix(randomu(sd,n)*n_clust)

   x=clust_fwhm
   fac=2*sqrt(2*alog(2))
   x=randomn(sd,n)*clust_fwhm/fac+cposx[cind]
   y=randomn(sd,n)*clust_fwhm/fac+cposy[cind]
endif

array=transpose([[x],[y]])
w=clust_wts(array,N_CLUSTERS=n_clust)
c=cluster(array,w)
h=histogram(c,REVERSE_INDICES=ri)
nh=n_elements(h)

plot,x,y,PSYM=4,/ISOTROPIC

cen=make_array(2,nh,VALUE=!VALUES.F_NAN)
```

```
for i=0,nh-1 do begin
   if ri[i+1] eq ri[i] then continue
   take=ri[ri[i]:ri[i+1]-1]
   oplot,x[take],y[take],PSYM=4,COLOR=i+1
   cen[0,i]=[mean(x[take]),mean(y[take])]
endfor

;; Find the lower right cluster
void=max(cen[0,*]-cen[1,*],lrc,/NAN)

;; Highlight it
keep=ri[ri[lrc]:ri[lrc+1]-1]
oplot,x[keep],y[keep],PSYM=6,SYMSIZE=2

END
```