Subject: Re: tracking clusters through multiple timesteps
Posted by Ian[1] on Mon, 20 Feb 2012 18:20:06 GMT
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Haha, thanks for such a quick reply David - i really wish i could go fishing instead, but unfortunately this ugly problem needs dealing with first :(The time resolution is very high - 15 minutes - so there is a huge degree of overlap between blob at t and blob at t+1.

For now i would like to work on an idealised case with no splitting or merging - but where the cloud will move quite a way from its start to finish location. I should specify that i am very much an IDL novice but it seems logical to pass the index given to a cluster of pixels (above a threshold of, say, 250, to filter out noise resulting from the initial flagging stage) at t to an overlapping cluster at t+1.

So if i just deal with the first cluster at t first of all, using the histogram tip i picked up from you...(fld1 and fld2 are two successive timesteps of flag data from my much larger parent dataset (intarr(1133,751)))

```
;find blobs at t
blobs1=label_region(fld1)
pop1=histogram(blobs1)
x1=where(pop1 ge 250)
a=where(blobs1=x1[1])

;select first cluster only, ignore the rest
cluster1=intarr(1133,751)
cluster1(a)=1

;find blobs at t+1
blobs2=label_region(fld2)

;-set all blobs that pass size threshold equal to 1 so that overlap
can be found with cluster1
pop2=histogram(blobs2)
x2=where(pop2 ge 250)

tmp=intarr(1133,751)

for i=0,n_elements(x2)-2 do begin
   j=where(blobs2 eq x2[i+1])
   tmp(j)=1
endfor

;add cluster1 to tmp to work out overlap (overlapping regions have
value 2)
```

overlap=cluster1+tmp

;assign cluster at t+1 to which this overlapping region belongs the
same identifier as the cluster at t

errr, here i get stuck!

Ian
