Subject: Re: Help with getting rid of a FOR loop
Posted by pgrigis on Tue, 20 May 2008 23:33:36 GMT
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Jean H wrote:
>> dist=sqrt((xx-xcenter)^2+(yy-ycenter)^2) ;array of radii
>>
>> mask=fltarr(imsize,imsize)-1
>>
>> FOR i=0,num-1 DO BEGIN
>> wh=where(dist GE r[i] and dist LE r[i+1])
>> mask[wh]=i
>> ENDFOR
>>
>> END
>>
>> I would like to find some way to get rid of the FOR loop at the end.
>> All I'm doing in that loop is going through the annuli one by one,
>> finding the pixels in that annuli, and setting the corresponding
>> pixels in mask to the correct mask value.
>>
>> Thanks for any help anyone can provide!
>>
>> Nathan Goldbaum
>
> Hi Nathan,
>
> if your computer memory permits it, you can
> 1) reform your dist array so it is now a n_elements(dist) *
> n_elements(r) array. basically, you will copy the distances
> n_elements(r) times.
> 2) reform your r array so it is now a n_elements(dist) * n_elements(r)
> array.
> 3) shift the array from (2) by 1
> 4) do where(new_dist GT new_r and new_dist LT new_r_plus_1)
> 5) divide the returned index by n_elements(r). You will know, for each
> r, which elements satisfies your condition!

I guess that the original problem is not so much that for loops are
slow,
but that "where" is slow. So I fear that the above strategy won't gain
much speed, as now where must work on a much larger array...

Ciao,
Paolo

>
> Sorry if it is not too clear... that's a "quick answer before to leave"...

> Jean