Subject: Re: do I need this IF statement?
Posted by Benjamin Luethi on Thu, 24 Mar 2005 15:05:52 GMT
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Hi,

No, if I understand your program correctly: You're adding all image
values that are closer than 3sigma (to be precise you weigh each value
with p before adding).

You can achieve the same with the following 4 lines:

    d = SQRT(x(INDGEN(M))^2 + y(INDGEN(N))^2)
    usable = d lt 3.*sigma

    p = some_function(x(INDGEN(M)), y(INDGEN(N)))

    profile = TOTAL(usable * p * image)

If a position (x(i),y(j)) is further away than 3sigma then usable[i,j]
is zero and thus the image value is not added to the profile.

I don't know what you do in v = v1 + vr(i,indx). It doesn't make sense
since v is overwritten in each loop and never used anyway...

And note:
if y has N elements then you can write y instead of y(INDGEN(N)).

This is a solution to this case - there might be some cases however,
where it's not that easy or even impossible.

Ben

On 24 Mar 2005 02:07:01 -0800, Margrethe <margrethewold@hotmail.com> wrote:

>
> I find that in some cases I really need an IF statement to make sure
> that I don't address some arrays with index -1. In the example below I
> have vectorized the inner loop over j, but have kept the loop over i.
> Is there a way to avoid the IF statement? Grateful for help! -Margrethe
>
> FOR i=0,N-1 DO BEGIN
>

```
>    d = sqrt ( x(i) ^2 + y (INDGEN(N)) ^2 )
>    indx = WHERE ( d LT 3.*sigma, ct )
>
>    IF (ct GT 0) THEN BEGIN
>
>      v = v1 + vr (i,indx)
>      p = some_function ( x(i), y(indx) )
>      profile = profile + TOTAL ( p * image(i,indx) )
>
>    ENDIF
>
>  ENDFOR
>
```

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