Subject: Re: Sum to Arrays
Posted by mole on Tue, 23 May 1995 07:00:00 GMT
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Stein Vidar Hagfors Haugan (steinhh@amon.uio.no) wrote:

: In article <moleD8uArz.DFG@netcom.com>, mole@netcom.com (Aaron Birenboim) writes:
: [...stuff deleted...]
: |>
: |> OK.... here's a tougher one to vectorize...
: |>
: |>
: |>   I want CENTROIDS, FAST!!! I'm stuck with :
: |>
: |> x = fltarr(m)
: |> for i=0,n do x = TOTAL(y(*,i) * findgen(n+1))
: |>

oops...   I meant:

x = fltarr(n)
for i=0,n-1 do x(i) = TOTAL(y(*,i) * findgen(m))

get the idea?   Weight each column of y by its index and then total

also... I'm trying to be portable between PV-Wave and IDL, so I cannot
use the 2 argument total. (I just found that out)

: Anyway, here are centroids for you:

: Given e.g., I(x,y), an M x N array:

: X = REBIN(REFORM(FINDGEN(M),M,1,/OVERWRITE),M,N,/SAMPLE) ; Gives you X(x,y)

neat. I doubt I'd have come up with that.

: CTROIDS_X = TOTAL(I*X,1)/TOTAL(I,1)   ; Gives an array of the centroids
:   ; (the X centroid at each y index.)
: CTROID_X = TOTAL(I*X)/TOTAL(I)   ; Gives the X Centroid coordinate
:   ; of the whole array.
: ;---------- or, for Y centroids...

thanks.
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