Subject: correlation matrix

Posted by kevinlausten on Wed, 11 Jun 2003 19:04:29 GMT

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I have written code to create the correlation matix of a data cube,
however, it seems to run slower than I would expect. I am I doing
anything inefficiently?

```
for r = 0, (nrows-1) do begin
  for c = 0, (ncols-1) do begin
  ;sum = 0
    for bb = 0, (nbands-1) do begin
    ref(bb) = in_cube(bb, c, r)
    ; 'ref' equals 'back_cube' for all values of 'bb' at location
    ; (c, r)
    endfor
  ;print, ref
  temp = ref#transpose(ref)
  ; 'temp' equals the product of 'ref' and the transpose of 'ref'
  sum = sum + temp
  ; 'sum' is a running total of the value of 'temp' at location
  ; (c, r)
  endfor
endfor
final0 = fltarr(nbands, nbands)
; 'final0' is a floating point aray of size (nbands, nbands)
n = npixels
; 'n' is a variable equal to 'npixels'
final0= sum/n
; final0 is correlation matrix
Thanks
Kevin
```