Subject: Problem array subscripting
Posted by GRI on Mon, 16 Aug 1999 07:00:00 GMT
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Hello everybody.

I have a little problem I want to solve using array subscripting (if possible), but I haven't been able to do it without using a FOR statement:

I have a 3D array (dimX, dimY, n_images), which represents a time-series

of images.
I have a masking image (dimX, dimY), from wich I extract some points I am interested in (a ROI) with the command WHERE.

I could then change the one dimensional subscripts returned by WHERE into two vectors, that give me the X and Y coordinates of the points.

What I want to do is:

index= INDGEN(n_images)
result= ARRAY[X, Y, index],

but I get an error:

% All array subscripts must be same size. Var = ARRAY.

I have read in the documentation I can't do

result= ARRAY[X,Y, 0:n_images-1]

because I get an (n,n,n_images); where n is the number of X (or Y) coordinates array, instead of the expected (n,n_images) array. Acording to IDL's help this combines each element in the first vector with all elements in the second vector, so it would work for me if my points where in a regular grid, but this is not the case!

With a FOR statement the solution would be easy:

n_points= N_ELEMENTS(X) ; number of points I am interested on.
result= FLTARR(n_points, n_images)
FOR i=0, n_points-1 DO $
 result[i,*]= ARRAY[X[i], Y[i], 0:n_images-1]

Is there a way to solve it with array subscripts, or should I go ahead with the FOR statement?.