
Subject: Re: Comparing structures

Posted by [David Fanning](#) on Fri, 21 Feb 2014 22:13:20 GMT

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cab581 writes:

> I have two structures that are made up of several fields. The last field (5) is the array which contains the measurement itself and the others contain information about the measurement (much like the star example on the Exelis website

http://www.exelisvis.com/docs/Creating_and_Defining_St.html).

>

> The two structures that I have need to be compared, but I'll use the star example from Exelis to explain what I want to do. Say I have two structures, one contains the masses of the star and the other contains the volumes and I want to work out the density of each part of the star at altitude i (OK, the astronomy in the example is a bit off, but it works), but the list of stars is not the same (the measurements may have been incomplete), so the star id (given by letters) fields may be

>

> strucA.(1) = [a, b, c, f, g, i, m, n, p, q, r, s, w, x, y, z]

> strucB.(1) = [b, d, e, f, h, i, j, l, m, q, r, s, t, v, w, x, y, z]

>

> I tried to use something like,

>

> for i=0,50

> match = where(strucA.(1) eq strucB.(1), count)

> if count le 0.0 then strucA[match].(5)[i] = !values.f_nan

> density[i]=strucA/strucB

> endfor

>

> What I'm trying to say is where I have a, b, c, etc in the first row, find the corresponding letter in the second row and do the calculation.

>

> However when I do this all it does is compare the nth letter in the first row to the nth letter in the second row, so the only results I'm getting in the example above are from f, q, r and s so I'm missing out on b, m, w, x, y, z.

>

> Any ideas would be greatly appreciated. If I haven't explained myself properly then I'd be glad to make it clearer.

It might take a week or so to sort out the problems with this code, but here is a place to start. There is a famous Where function gotcha that occurs when there are two arrays on either side of the EQ operator in the Where function.

http://www.idlcoyote.com/misc_tips/noidea.html

In this case, the Where function seldom (if ever) does what you think it is doing. I would walk through this code with a very fine sieve and see

if you can discover the places where your logic is leaking out.

Cheers,

David

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")
