Subject: array multiplying (for a change)
Posted by Chris Lee on Tue, 17 Feb 2004 10:50:17 GMT
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So...

Every 3rd function or so that I write, I find a need to write a vector multiplying routine which uses two matrices of different order.

e.g I have a field with 3 dimensions and a field with 1 dimension.
a(10,20,30)
b(20)

The IDL result is to give me an array with 1 dimension or somewhat indeterminate origin (I assume a[0,*,0] * b[*] but I've never really checked).

What I want is  result = a * b'
where b' = rebin(reform(b, [1,20,1]), 10,20,30)
, which (clearly :) I know how to do in principle.

I also know that this can be very bad for my poor computer, especially when my arrays are 72 x 36 x 31 x 1000 or similar.

My question is:

Are there any functions, buit-in or otherwise, that I can use? I found CMAPPLY, which I can beat into a form which works. (I use a similar function now but it's very _VERY_ bad code).

A quick test using loops versus rebin/reform of the shows loops to be slower (for a matrix 72,36,31,200) which I'm not really surprised by. Is this a case where a DLM would be faster?

Chris.