Hi all,

Good one, Chris. How about this for getting the subset:

PRO IndexXYPairsOverZ

a = Transpose(IndGen(10,10,10), [2,1,0]) ; Array where, e.g. a[3,0,4]=304

xy = [[3,4],[2,1],[3,7]]
z0 = 1
z1 = 3

dims=Size(a,/Dim)
a = Reform(a, dims[0]*dims[1], dims[2], /Overwrite) ; Reshape a temporarily
xyIndices = xy[0,*]+xy[1,*]*dims[0]
subset = a[xyIndices, z0:z1]
a = Reform(a, dims, /Overwrite)   ; Restore a's shape

Help, subset
Print, subset

END

Printed result:

SUBSET   INT   = Array[3, 3]
   341   211   371
   342   212   372
   343   213   373
Note that the Reforms will take effectively no time at all, and you only
make one list of indices.

Hope this helps.

Cheers,
-Dick

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"Jeremy Bailin" <astroconst@gmail.com> wrote in message

news:a50cae0f-63e5-47b7-a44e-b5363114855a@r37g2000yqn.google groups.com...
On Apr 2, 1:34 am, Chris <beaum...@ifa.hawaii.edu> wrote:
> I would have done something like this, accomplishing the summation in
> two steps
>
> x = [3, 2, 3]
> y = [4, 1, 7]
> sum = total(array[*,*,1:3], 3) ; summed along z direction
> answer = total(sum[x,y]) ; summed over x,y pairs
>
> chris

Yeah, that definitely works nicely for total (I like the fact that it
doesn't need any internal index vectors, and that the intermediate
stage is a constant size independent of npair and nz), which is what
I'm doing today. But it wouldn't work for the more generic case where
I want to do something else to those values - for example, I've needed
to do the equivalent with median before, and that won't work as a 2-
step process.

-Jeremy.