Subject: Array juggling help needed
Posted by Haje Korth on Fri, 23 Sep 2005 12:30:29 GMT
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Good morning,
I need to expand and an array non-uniformly based on its content. I am trying to to the following:

input array: [1,5,4,1]
output array should be: [1,0.2,0.2,0.2,0.2,0.2,0.25,0.25,0.25,0.25,1]

Each elements of the input array is basically tuned into fltarr(inputarray[i])/inputarray[i] and the subarray concatenated. Is there a way to do this in one step, without using "for" loops and array concatenation? If not, I can work around this, but knowing for sure that this doesn't work would at least allow me to stop thinking about this problem. :-)

To me this looks kind of like a "REPLICATE" for vectors function?

Thanks for your input in advance,
Haje

Subject: Re: array juggling
Posted by JD Smith on Wed, 08 Nov 2006 18:19:28 GMT
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On Wed, 08 Nov 2006 09:38:29 -0800, MA wrote:

> It seems to me I should be able to do something like this instead, and
> avoid the loop:
>
> T=temp3D[lonindex,latindex,*]

s=size(temp3D,/DIMENSIONS)
s1=size(T,/DIMENSIONS)
T=temp3d[rebin(transpose(lon+s[0]*lat),s1) + rebin(lindgen(60)*s[0]*s[1],s1)]

JD

Subject: Re: array juggling
Posted by greg michael on Wed, 08 Nov 2006 18:38:01 GMT
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I was going to suggest this, but I see JD's is way more concise!

Hi Maike,

If I understand what you've written, you have a mask of 6500 points that you're interested in out of a grid of 360x181 (=65160), described by your two vectors latindex, lonindex.

I would:

1. convert this to a 2-d mask:

```
mask=bytarr(360,181)
mask[lonindex,latindex]=1
```

2. and use this mask to extract the columns:

find the indices of the elements of the mask which you need:

```
q=where(mask eq 1)
```

rearrange the cube into 2d, so that you can use the indices to pick out the columns:

```
temp2d=reform(temp3d,360*181,60)
```

and then extract the columns:

```
result=temp2d[q,*]
```

result should be an array of (6500,60)

regards,
Greg

Subject: Re: array juggling
Posted by MA on Wed, 08 Nov 2006 18:45:05 GMT
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Thanks, both of you!
I knew there was a way...
Maike
