Subject: Re: Convert 3D to 1D, apply fuction then convert back to 3D
Posted by penteado on Mon, 21 Jun 2010 01:14:54 GMT
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On Jun 20, 9:58 pm, Mat <m...@waikato.ac.nz> wrote:
> No the function used the "imageR" from above which is a floating 1D 5
> element array (reformed from a 5 band 3d image (satellite reflectance)
> and returned a 3-element array(water quality). The function is complex
> and not my code so I'm not in a position to post it sorry. So for each
> pixel in the original tiff I want the water quality (three parameters)
> in an image format. I hope this helps.

imageR as you wrote above is 2D (5,npix), not 1D.

Now I think what you mean is that you have a 5-channel image (a (5,nx,ny) array), where you want to apply some function that takes each of the 5 bands for each pixel, and returns 3 values for each, which you want to put into a 3-channel image (3,nx,ny). If that is the case, this does not indicate any need for reforming, it could be done with something like

result=dblarr(3,nx,ny)
for i=0,ny-1 do for j=0,nx-1 do
result[*,j,i]=some_function(image[*,j,i])

> I think it is simpler if somebody posts a code to convert an
> image(5,nx*xy) to 1D, then convert it back to the original image. I
> think I could fill in the gaps.

I do not think you need to do it, but if you want to, it would be

image1d=reform(image2d,5L*nx*ny)

then, to get it back,

image2d=reform(image1d,5,nx,ny)