Subject: rebin question
Posted by Jonathan Joseph on Fri, 22 Mar 2002 16:58:41 GMT

I figured I would use rebin to downsample an image by averaging the pixels in blocks of specified size. What I discovered, was that for integer type images, rebin averages the pixels, but then instead of rounding to the nearest integer, simply takes the integer part of the average. Hence:

print, rebin([5,5,5,5,4], 1)

gives the result of 4, not 5 which is what I would like. I suppose this is done for speed - to work around the problem, I need to convert to a floating point type, do the rebin, then round, then convert back to the proper integer type - a hassle.

But, I would really like a more generic way of doing downsampling of this sort, without the high overhead of a loop. Apart from taking the mean of a block of pixels, I would also like the option of downsampling using the median of a block of pixels, or using the mean of a block of pixels disregarding the farthest outlier (or n outliers).

Has anyone written IDL code to do downsampling in a more generalized way than rebin, or have any clever ideas about how to do it quickly?

Thanks