Subject: Re: INTERPOLATE function - Question
Posted by wlandsman on Thu, 10 Mar 2016 21:43:06 GMT
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On Wednesday, March 9, 2016 at 2:52:45 PM UTC-5, wlandsman wrote:

>
> if you do this you will the find same percentage of non-zero pixels in the small array as the big one. In your case, 1 out of 4 pixels should be nonzero so 136/4. =34 pixels in each dimension, small_int[0:33,0:33]

OK, I will somewhat modify my previous answer. In general, there is no reason to expect the same fraction of non-zero pixels when you are *interpolating*. If you want to have the same fraction then use

small_int = rebin(small,nint[0],nint[1], /sample)
or
small_int = congrid(small,nint[0],nint[1] )

But any fractional pixel position less than 1 pixel away will be interpolated and thus non-zero. So in dimension if small[1] is non-zero, then any pixel position between 0 and 2 will be interpolated.

The corner pixel [0,0] is a special case, because all interpolated positions will have a X,Y value less than one. (Remember that [0,0] specifies the lower left hand corner of a pixel, with [0.5, 0.5] in the middle.)