
Subject: Re: rebin but ignore zero

Posted by [David Fanning](#) on Fri, 26 Sep 2008 20:15:28 GMT

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David Klassen writes:

- > I have a very sparse array (image) and I want to resize it---shrink
- > it by a factor of 2 in each direction. If I do a rebin, every pixel
- > is
- > replaced by its nearest neighbor average, but many of those
- > neighbors are zeroes---not real zeroes, but zero because there
- > is no data there. This means, the resulting rebin-ed image has
- > values that are smaller than they "should" be.
- >
- > Is there a way to do a rebin that can ignore these "blank" pixels?

In contrast to what the documentation says, REBIN insists on doing bilinear sampling when minifying a dimension. You can overcome this by setting the SAMPLE keyword. Then nearest-neighbor sampling will be enforced, and your data values won't change.

```
IDL> a=fltarr(10,10)
```

```
IDL> a[2,2] =1
```

```
IDL> a[8,8] = 1
```

```
IDL> print, rebin(a, 5, 5)
```

0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.250000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.250000

```
IDL> print, rebin(a, 5, 5, /SAMPLE)
```

0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	1.00000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	1.00000

Cheers,

David

--

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
