Subject: Re: What is like CONGRID, but averages on reduction?
Posted by thompson on Mon, 16 Oct 1995 07:00:00 GMT
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grunes@news.nrl.navy.mil (Mitchell R Grunes) writes:

> In article <45gk07$ahc@post.gsfc.nasa.gov> thompson@orpheus.nascom.nasa.gov (William Thompson) writes:
>> ...I think this should do what you want...

> No. Your procedure truncates the edges. E.G., try
> a=intarr(9,9)
> a(8,8)=10
> print,reduce(a,2,2)

> You will get all 0's.

You are correct. However, the following counterexample will not produce all zeros.

```
IDL> A=intarr(8,8)
IDL> A(7,7)=10
IDL> print,reduce(A,2)
      0       0       0       0
      0       0       0       0
      0       0       0       0
      0       0       0       2
```

(If A had been a floating point array, instead of an integer one, the nonzero pixel would have been 2.5 instead of 2.)

The routine works by trimming off just enough of the edge so that the array dimensions are then multiples of the reduction factor. For example, if one wants to reduce a 1000x1000 array by three, then the first step is to trim off the edge to make it a 999x999 array. I've always found this acceptable for what I wanted to do, but I can understand if you do not.

Bill Thompson