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Subject: What is like CONGRID, but averages on reduction?

Posted by [grunes](#) on Tue, 10 Oct 1995 07:00:00 GMT

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Subject: What is like CONGRID, but averages on reduction?

I need to reduce the size of an array by an arbitrary (non-integral) factor, using an averaging algorithm. Is there such a routine in IDL and/or PV-WAVE?

When I display an image that is larger than the window, I use:

```
A=REBIN(A,XSZ,YSZ)
or
A=CONGRID(A,XSZ,YSZ)
```

The problem with REBIN is that XSZ and YSZ must be integral factors of the size of A. This means that I often can not take advantage of the whole screen. But it is able to average things down (as long as I don't set /SAMPLE), so bright and dark points don't get lost.

The problem with CONGRID is that it sometimes misses bright or dark spots altogether. For example:

```
A=INTARR(9,9)
A(3,3)=1
PRINT,CONGRID(A,4,4)
or
PRINT,CONGRID(A,4,4,/INTERP)
misses the bright point, because CONGRID can interpolate or use
nearest neighbor, but cannot average.
```

Thanks in advance.

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