Subject: Re: How to create a 2D mask that automatically half’s an irregularly shaped 2D array from top to bottom?
Posted by Jeremy Bailin on Fri, 18 Nov 2011 19:53:35 GMT
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On 11/18/11 10:04 AM, Dr G. wrote:
> Hi Folks,
>
> Q: Can the IDL geometry geniuses out there think of a fast way to
> create a 2D mask that automatically halfï¿½s an irregularly shaped 2D
> array along its x axis (i.e., from top to bottom) Eg:
>
> [0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0]
> [0,0,0,0,0,0,0,1,1,1,1,0,0,0,0,0]
> [0,0,0,0,1,1,1,1,1,1,0,0,0,0,0,0]
> [0,0,0,0,0,0,0,1,1,1,1,0,0,0,0,0]
> [0,0,0,0,0,0,0,0,1,1,1,1,1,0,0,0]
> [0,0,0,0,0,0,0,0,1,1,1,1,1,1,0,0]
> [0,0,0,0,0,0,0,1,1,1,1,1,1,0,0,0]
> [0,0,1,1,1,1,1,1,1,1,0,0,0,0,0,0]
> [0,0,0,1,1,1,1,1,1,1,0,0,0,0,0,0]
> [0,0,0,0,1,1,1,0,0,0,0,0,0,0,0,0]
> [0,0,0,1,1,1,1,1,1,1,0,0,0,0,0,0]
> [0,1,1,1,1,1,1,1,1,1,1,1,0,0,0,0]
>
> Merci.
>
> Gf

If the input mask is "inmask":

```
; how many 1s are there?
rowtot = total(inmask, 1, /int)
; and it by checking if the cumulative total along the row is less
; than half of rowtot
outmask = inmask and (total(inmask, 1, /int, /cumul) le $
   rebin(transpose(rowtot/2), masksize, /sample))
```

-Jeremy.