Subject: gauss_smooth with integers
Posted by greg.addr on Tue, 01 Jul 2014 08:10:18 GMT
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The GAUSS_SMOOTH (introduced 8.1) documentation appears to suggest it should work on integer arrays, but I can't get anything useful without converting to float. I can do this but, since I'm constrained by memory usage, I'd be glad to know if there is a way (although maybe it has to be converted to float internally anyway?)

```
a=intarr(800,800)
a[*,400]=1000
a[400,*]=1000
tvscl,a
tvscl,gauss_smooth(a,20,kernel=k)
tvscl,k
```

...there's no smoothing because the kernel is zeros with a single 1 at the centre.

cheers,
Greg

Subject: Re: gauss_smooth with integers
Posted by Fabzi on Tue, 01 Jul 2014 10:04:23 GMT
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Hi,

if you check the code from gauss_smooth you can see where the problem occurs. Gauss_smooth generates internally a normalized kernel and then fixes it to integer.

Based on this code you can do your own cuisine using convol:

```
a=intarr(800,800)
a[*,400]=1000 & a[400,*]=1000

; this call is necessary to compile "create_gaussian"
tvscl, gauss_smooth(a, 20)

; parameters are arbitrary, be careful
k = FIX(create_gaussian(20, 100, 2) * 100)
tvscl, convol(a, k, total(k))
```

Cheers,

Fabien

Subject: Re: gauss_smooth with integers
Posted by greg.addr on Tue, 01 Jul 2014 11:18:39 GMT
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that works - thanks very much