Subject: Re: RANDOMN function
Posted by on Thu, 14 Nov 2013 14:46:01 GMT
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Den torsdagen den 14:e november 2013 kl. 14:59:11 UTC+1 skrev fd_...@mail.com:
> Hi
>
> I used the RANDOMN function to add Gaussian noise to my data like this:
>
> noise=RANDOMN(seed,N)
>
> When I print, the mean values of RANDOMN(seed,N) I didn't get zero but something around 0.0337187.
>
> I expect to get something very very close to zero since the RANDOMN function returns normally-distributed, floating-points with a mean of zero. Is my assumption wrong? It's correct that the median is not zero?

You will get better statistics the larger the set:

```
IDL> for e=1,9 do print,e,10d^e,mean(randomn(seed,10d^e))
      1       10.000000    0.0489258
      2       100.00000    0.0172675
      3       1000.0000   -0.0336368
      4       10000.000  -0.00799687
      5       100000.00   0.00208867
      6       1000000.0  -0.00101986
      7       10000000. -0.000105310
      8   1.0000000e+08  0.000104068
      9   1.0000000e+09  2.46072e-05
```