Subject: Re: Smooth function question
Posted by Helder Marchetto on Wed, 15 Oct 2014 14:56:56 GMT
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On Wednesday, October 15, 2014 3:37:14 PM UTC+2, zolile...@gmail.com wrote:
> On Wednesday, October 15, 2014 3:11:05 PM UTC+2, zolile...@gmail.com wrote:
>
>> Dear all,
>
>>
>
>> I got a 3D data. I applied a SMOOTH function like smooth(a,3), the plots look fine and when I print the number of elements on the screen are equal as the original data. But when wrote to a file I found that there is a missing element or number is not corresponding with original data. I checked using excel. I am a bit confused, I need some help. Any suggestion is very welcome,
>
>>
>
>> Thanks
>
>>
>
>> Zolile
>
>
>
> openR, Lun, File,/Get_Lun
>
> readf, Lun, str
>
> while~eof(lun) do begin
>
>
>
> readf,lun,date,time,Bx,By,Bz
>
> print,date,time,Bx,By,Bz
>
> Bx_array = [Bx_array, Bx]
>
> By_array = [By_array, By]
>
> Bz_array = [Bz_array, Bz]
>
> endwhile
>
> free_lun,lun
>

```
>     Bx_array=Bx_array[1:*]
>
>     By_array=By_array[1:*]
>
>     Bz_array=Bz_array[1:*]
>
>
>
>
>
>    Nx = n_elements(Bx_array)
>
>     time = findgen(Nx)
>
>     time = time/225.
>
>
>
>    Ny = n_elements(By_array)
>
>     time = findgen(Ny)
>
>     time = time/225.
>
>
>
>     Nz = n_elements(Bz_array)
>
>     time = findgen(Nz)
>
>     time = time/225.
>
>
>
>     Smoothed1 = smooth(Bx_array,3)
>
>     Smoothed2 = smooth(By_array,3)
>
>     Smoothed3 = smooth(Bz_array,3)
>
>
>
>      NN1=n_elements(smoothed1)
>
>      NN2=n_elements(smoothed2)
>
>      NN3=n_elements(smoothed3)
>
```

```
>       print, smoothed1
>
>
>
>    print, NN1,NN2,NN3
>
>
>
>    openw,1,'dataxx.txt'
>
>      printf,1,transpose(smoothed1)
>
>      close,1
```

According to your post from before, the number of elements by the print command (monitor output) do not match with those of the text file produced.

I tried replicating your last lines:

```
IDL> openw,1,'dataxx.txt'
IDL> smoothed = findgen(100)
IDL> printf,1,transpose(smoothed)
IDL> close,1
IDL> print, FILE_LINES('dataxx.txt')
                 100
```

So I get 100 lines in the text file. Something like this:

```
     0.000000
      1.00000
      2.00000
      3.00000
      4.00000
      5.00000
...
      95.0000
      96.0000
      97.0000
      98.0000
      99.0000
```

This is the same as if I did
IDL> print, smoothed

So I think there is something missing part in your code or you're mixing up files when checking what has been done.

Maybe try putting a time stamp... something like

```
IDL> start_t = systime()
IDL> print, 'start : '+start_t
IDL> printf,1,start_t
IDL> printf,1,transpose(smoothed)
IDL> end_t = systime()
IDL> print, 'end : '+end_t
IDL> printf,1,end_t
IDL> close,1
```

Do the values in the file and on the screen match?
If they match, then you have to have a file with a number of lines equal to the number of elements of smoothed + 2 (for the time stamps!)

Cheers, Helder
