
Subject: Re: SOS with Idl

Posted by [Jean H.](#) on Tue, 21 Aug 2007 16:01:06 GMT

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anaigscristal@gmail.com wrote:

> Hi, I just learnig programming with Idl, and I've been trying to
> modifided a file to print a array 4X27 (matriz), but I can't print
> this array in a file! I suposse the problems it's some definition or
> something similar, but I didn't found it. It's posible that someone
> can check the code and help me to found the bug?
> Thanks a lot

What do you get exactly?

Jean

> Quote:
> pro p
> fname = "/home/iquique/anais/Codigos/Gadget/resultados/w_066/
> powerspec_004.txt"
> openr, 1, fname
>
>
> Time = 0.0
> Bins = 0L
> readf, 1, Time
> readf, 1, Bins
> da1= fltarr(10, bins)
> readf, 1, da1
> readf, 1, Time
> readf, 1, Bins
> da2= fltarr(10, bins)
> matriz = fltarr(2, 27)
> readf, 1, da2
> close,1
>
>
> K_A = da1(0,*)
> Delta2_A = da1(1,*)
> Shot_A = da1(2,*)
> ModePow_A = da1(3,*)
> ModeCount_A = da1(4,*)
> Delta2Uncorrected_A = da1(5,*)
> ModePowUncorrected_A = da1(6,*)
> Specshape_A = da1(7,*)

```

> SumPower_A = da1(8,*)
> ConvFac_A = da1(9,*)
>
> K_B = da2(0,*)
> Delta2_B = da2(1,*)
> Shot_B = da2(2,*)
> ModePow_B = da2(3,*)
> ModeCount_B = da2(4,*)
> Delta2Uncorrected_B = da2(5,*)
> ModePowUncorrected_B = da2(6,*)
> Specshape_B = da2(7,*)
> SumPower_B = da2(8,*)
> ConvFac_B = da2(9,*)
>
>
> ; we will do a band averaging of the finely binned points,
> ; subject to two conditions:
> ; We want enough modes per bin in order to reduce the variance in a
> bin,
> ; and simultaneously, for large k, we don't want the bins become too
> narrow.
> ;
> ; The first condition is set by "MinModeCount",
> ; the second by "TargetBinNummer", which is used to compute a minimum
> ; logarithmic bin-size.
>
>
> MinModeCount = 20
> TargetBinNummer = 60
>
> MinDlogK = (alog10(max(K_A)) - alog10(min(K_A)))/TargetbinNummer
>
>
> istart=0
> ind=[istart]
> k_list_A = [0]
> Delta2_list_A = [0]
> count_list_A = [0]
> for j = 0, 27-1 do begin
> repeat begin
> count = total(modecount_a(ind))
> deltak = (alog10(max(K_A(ind))) - alog10(min(K_A(ind))))
>
> if (deltak ge mindlogk) and (count ge MinModeCount) then begin
> d2 = total(SumPower_A(ind))/total(ModeCount_A(ind))
> b = fix(total(double(ind)*ModeCount_A(ind))/total(ModeCount_A(in d)))
> kk = K_A(b)
> d2 = ConvFac_A(b)*d2*Specshape_A(b)

```

```
> k_list_A = [k_list_A, kk]
> Delta2_list_A = [Delta2_list_A, d2]
> count_list_A = [count_list_A, total(ModeCount_A(ind))]
> istart = istart + 1
> ind = [istart]
> endif else begin
> istart = istart + 1
> ind = [ind, istart]
> endelse
> endrep until istart ge Bins
> K_list_A = k_list_A(1:*)
> Delta2_list_A = delta2_list_A(1:*)
> Count_list_A = count_list_A(1:*)
> [b]matriz(0, j) = Delta2_list_A
> matriz(1,j) = Delta2_list_B
> end
> openw, 5, 'mypk.dat'
> for j= 0, 27 -1 do begin
> printf, 5, matriz(*, j)
> print, matriz(*, j)
> end
> close, 5
> end
>
```

Subject: Re: SOS with Idl

Posted by [David Fanning](#) on Tue, 21 Aug 2007 16:06:27 GMT

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anaisgcristal@gmail.com writes:

```
> Hi, I just learnig programming with Idl, and I've been trying to
> modifided a file to print a array 4X27 (matriz), but I can't print
> this array in a file! I suposse the problems it's some definition or
> something similar, but I didn't found it. It's posible that someone
> can check the code and help me to found the bug?
```

Oh, my gosh, are your TAB and SPACE keys broken?
Good luck with your debugging. :-(

Why don't you try something like this:

```
openw, 5, 'mypk.dat'
printf, 5, matriz
close, 5
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: SOS with Idl

Posted by [anaisgcrystal@gmail.c](mailto:anaisgcrystal@gmail.com) on Tue, 21 Aug 2007 18:02:11 GMT

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Hi Jean, The mess i get it's:

```
% Out of range subscript encountered: MATRIZ.
```

```
% Execution halted at: P          119
```

```
  /home/iquique/anaís/Codigos/Gadget/resultados/Idl/PlotPowerS pec.pro
```

```
%          $MAIN$
```

And when I tried to printf in prompt the matriz value, it's a secuencia of numbers (in files) not in arrow! I just learnig to program, and I suposse the problem it's some bad definition or something similar...

On Aug 21, 6:01 pm, "Jean H." <jghas...@DELTHIS.ucalgary.ANDTHIS.ca> wrote:

> anaisgcris...@gmail.com wrote:

>> Hi, I just learnig programming with Idl, and I've been trying to

>> modified a file to print a array 4X27 (matriz), but I can't print

>> this array in a file! I suposse the problems it's some definition or

>> something similar, but I didn't found it. It's posible that someone

>> can check the code and help me to found the bug?

>> Thanks a lot

>

> What do you get exactly?

>

> Jean

>

>> Quote:

>> pro p

>> fname = "/home/iquique/anaís/Codigos/Gadget/resultados/w_066/

>> powerspec_004.txt"

>> openr, 1, fname

>

>> Time = 0.0

>> Bins = 0L

>> readf, 1, Time

```

>> readf, 1, Bins
>> da1= fltarr(10, bins)
>> readf, 1, da1
>> readf, 1, Time
>> readf, 1, Bins
>> da2= fltarr(10, bins)
>> matriz = fltarr(2, 27)
>> readf, 1, da2
>> close,1
>
>> K_A = da1(0,*)
>> Delta2_A = da1(1,*)
>> Shot_A = da1(2,*)
>> ModePow_A = da1(3,*)
>> ModeCount_A = da1(4,*)
>> Delta2Uncorrected_A = da1(5,*)
>> ModePowUncorrected_A = da1(6,*)
>> Specshape_A = da1(7,*)
>> SumPower_A = da1(8,*)
>> ConvFac_A = da1(9,*)
>
>> K_B = da2(0,*)
>> Delta2_B = da2(1,*)
>> Shot_B = da2(2,*)
>> ModePow_B = da2(3,*)
>> ModeCount_B = da2(4,*)
>> Delta2Uncorrected_B = da2(5,*)
>> ModePowUncorrected_B = da2(6,*)
>> Specshape_B = da2(7,*)
>> SumPower_B = da2(8,*)
>> ConvFac_B = da2(9,*)
>
>> ; we will do a band averaging of the finely binned points,
>> ; subject to two conditions:
>> ; We want enough modes per bin in order to reduce the variance in a
>> bin,
>> ; and simultaneously, for large k, we don't want the bins become too
>> narrow.
>> ;
>> ; The first condition is set by "MinModeCount",
>> ; the second by "TargetBinNummer", which is used to compute a minimum
>> ; logarithmic bin-size.
>
>> MinModeCount = 20
>> TargetBinNummer = 60
>
>> MinDlogK = (alog10(max(K_A)) - alog10(min(K_A)))/TargetbinNummer
>

```

```

>> istart=0
>> ind=[istart]
>> k_list_A = [0]
>> Delta2_list_A = [0]
>> count_list_A = [0]
>> for j = 0, 27-1 do begin
>> repeat begin
>> count = total(modecount_a(ind))
>> deltak = (alog10(max(K_A(ind))) - alog10(min(K_A(ind))))
>
>> if (deltak ge mindlogk) and (count ge MinModeCount) then begin
>> d2 = total(SumPower_A(ind))/total(ModeCount_A(ind))
>> b = fix(total(double(ind)*ModeCount_A(ind))/total(ModeCount_A(in d)))
>> kk = K_A(b)
>> d2 = ConvFac_A(b)*d2*Specshape_A(b)
>> k_list_A = [k_list_A, kk]
>> Delta2_list_A = [Delta2_list_A, d2]
>> count_list_A = [count_list_A, total(ModeCount_A(ind))]
>> istart = istart + 1
>> ind = [istart]
>> endif else begin
>> istart = istart + 1
>> ind = [ind, istart]
>> endelse
>> endrep until istart ge Bins
>> K_list_A = k_list_A(1:*)
>> Delta2_list_A = delta2_list_A(1:*)
>> Count_list_A = count_list_A(1:*)
>> [b]matriz(0, j) = Delta2_list_A
>> matriz(1,j) = Delta2_list_B
>> end
>> openw, 5, 'mypk.dat'
>> for j= 0, 27 -1 do begin
>> printf, 5, matriz(*, j)
>> print, matriz(*, j)
>> end
>> close, 5
>> end

```

Subject: Re: SOS with Idl

Posted by [airy.jiang](#) on Wed, 22 Aug 2007 03:57:35 GMT

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On 8 22 , 2 02 , "anaisgcris...@gmail.com" <anaisgcris...@gmail.com>
wrote:

> Hi Jean, The mess i get it's:

>

```

> % Out of range subscript encountered: MATRIZ.
> % Execution halted at: P          119
> /home/iquique/anais/Codigos/Gadget/resultados/Idl/PlotPowerS pec.pro
> %          $MAIN$
>
> And when I tried to printf in prompt the matriz value, it's a sequence
> of numbers (in files) not in arrow! I just learning to program, and I
> suppose the problem it's some bad definition or something similar...
>
> On Aug 21, 6:01 pm, "Jean H." <jghas...@DELTHIS.ucalgary.ANDTHIS.ca>
> wrote:
>
>
>
>> anaisgcris...@gmail.com wrote:
>>> Hi, I just learning programming with Idl, and I've been trying to
>>> modified a file to print a array 4X27 (matriz), but I can't print
>>> this array in a file! I suppose the problems it's some definition or
>>> something similar, but I didn't found it. It's possible that someone
>>> can check the code and help me to found the bug?
>>> Thanks a lot
>
>> What do you get exactly?
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>> Jean
>
>>> Quote:
>>> pro p
>>> fname = "/home/iquique/anais/Codigos/Gadget/resultados/w_066/
>>> powerspec_004.txt"
>>> openr, 1, fname
>
>>> Time = 0.0
>>> Bins = 0L
>>> readf, 1, Time
>>> readf, 1, Bins
>>> da1= fltarr(10, bins)
>>> readf, 1, da1
>>> readf, 1, Time
>>> readf, 1, Bins
>>> da2= fltarr(10, bins)
>>> matriz = fltarr(2, 27)
>>> readf, 1, da2
>>> close,1
>
>>> K_A = da1(0,*)
>>> Delta2_A = da1(1,*)
>>> Shot_A = da1(2,*)

```

```

>>> ModePow_A = da1(3,*)
>>> ModeCount_A = da1(4,*)
>>> Delta2Uncorrected_A = da1(5,*)
>>> ModePowUncorrected_A = da1(6,*)
>>> Specshape_A = da1(7,*)
>>> SumPower_A = da1(8,*)
>>> ConvFac_A = da1(9,*)
>
>>> K_B = da2(0,*)
>>> Delta2_B = da2(1,*)
>>> Shot_B = da2(2,*)
>>> ModePow_B = da2(3,*)
>>> ModeCount_B = da2(4,*)
>>> Delta2Uncorrected_B = da2(5,*)
>>> ModePowUncorrected_B = da2(6,*)
>>> Specshape_B = da2(7,*)
>>> SumPower_B = da2(8,*)
>>> ConvFac_B = da2(9,*)
>
>>> ; we will do a band averaging of the finely binned points,
>>> ; subject to two conditions:
>>> ; We want enough modes per bin in order to reduce the variance in a
>>> bin,
>>> ; and simultaneously, for large k, we don't want the bins become too
>>> narrow.
>>> ;
>>> ; The first condition is set by "MinModeCount",
>>> ; the second by "TargetBinNummer", which is used to compute a minimum
>>> ; logarithmic bin-size.
>
>>> MinModeCount = 20
>>> TargetBinNummer = 60
>
>>> MinDlogK = (alog10(max(K_A)) - alog10(min(K_A)))/TargetbinNummer
>
>>> istart=0
>>> ind=[istart]
>>> k_list_A = [0]
>>> Delta2_list_A = [0]
>>> count_list_A = [0]
>>> for j = 0, 27-1 do begin
>>> repeat begin
>>> count = total(modecount_a(ind))
>>> deltak = (alog10(max(K_A(ind))) - alog10(min(K_A(ind))))
>
>>> if (deltak ge mindlogk) and (count ge MinModeCount) then begin
>>> d2 = total(SumPower_A(ind))/total(ModeCount_A(ind))
>>> b = fix(total(double(ind)*ModeCount_A(ind))/total(ModeCount_A(in d)))

```



```

>>> kk = K_A(b)
>>> d2 = ConvFac_A(b)*d2*Specshape_A(b)
>>> k_list_A = [k_list_A, kk]
>>> Delta2_list_A = [Delta2_list_A, d2]
>>> count_list_A = [count_list_A, total(ModeCount_A(ind))]
>>> istart = istart + 1
>>> ind = [istart]
>>> endif else begin
>>> istart = istart + 1
>>> ind = [ind, istart]
>>> endelse
>>> endrep until istart ge Bins
>>> K_list_A = k_list_A(1:*)
>>> Delta2_list_A = delta2_list_A(1:*)
>>> Count_list_A = count_list_A(1:*)
>>> [b]matriz(0, j) = Delta2_list_A
>>> matriz(1,j) = Delta2_list_B
>>> end
>>> openw, 5, 'mypk.dat'
>>> for j= 0, 27 -1 do begin
>>> printf, 5, matriz(*, j)
>>> print, matriz(*, j)
>>> end
>>> close, 5
>>> end-      -
>
> -      -

```

I haven't read your code completely, but I can tell you that the error message returned tell you the variable 'Matriz' have a different dimensions with the data. And I suggest that when you are assigning the data to the matrix, you'd better use this format:

```

matrix = fltarr(10)
array = [1.,2,3,4,5,6]
matrix[0:5]=array

```

Use the '[' and ']' ,not the '(' and ')' to assign the array elements. I think that's maybe the main reason of your program error.
Cheers!

Subject: Re: SOS with Idl

Posted by anaisgcristal@gmail.com on Wed, 22 Aug 2007 21:54:54 GMT

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Jean: Thanks a lot for your help. I finally decided wrote the same code in another language..and only plot the results with Idl.

Thanks a lot by your help :-)