
Subject: Re: interpolation between different files

Posted by [Helder Marchetto](#) on Wed, 16 Jan 2013 13:28:46 GMT

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On Wednesday, January 16, 2013 1:47:05 PM UTC+1, idlhelp wrote:

> Hello All,

>

> I was trying to interpolate different model spectra w.r.t metallicity at a step of 0.1. In each model atmosphere I am having wave and flux w.r.t metallicity that ranges from -0.5 to +0.5 at a step of 0.5. The name of the files I am having is like that

>

>

>

> 2000K-0.5.txt

>

> 2000K-0.0.txt

>

> 2000K+0.5.txt

>

> 2100K-0.0.txt

>

> 2100K+0.5.txt

>

>

>

>

>

> 4000K-0.0.txt

>

>

>

> First I want to interpolate for 2000K files between -0.5 to +0.5 at a step of 0.1 and in order to do so I am interpolations first between 1st and 2nd file and then 2nd and 3rd file and so on. In order to do that I have wrote a code. It works fine when I just read the first two files separately but as I have 100's of such file I am reading all the file at once and then performing the following calculations. But I am not sure that the code always keep 2000K constant and doing the interpolation and then for 2100Kand so on.

>

>

>

> Here is the code

>

>

>

> readcol,'list.txt',fna,format='A' ; reading list of files

>

> nl = n_elements(fna)

>

```

> nm = 268522                ; number of elements in one file
>
> all_w = fltarr(nm,nl)
>
> all_f = fltarr(nm,nl)
>
>   for i=0,nl-1 do begin
>
>       fname = fna(i)
>
>   readcol,fname,temp1,temp2
>
>       all_w(*,i) = temp1
>
>       all_f(*,i) = temp2
>
>   endfor
>
> alpha = (nl)-1
>
> alpha = long(alpha)
>
>   for k = 0L, alpha do begin
>
>       w1 = all_w(*,k)
>
>       w2 = all_w(*,k+1)
>
>       f1 = all_f(*,k)
>
>       f2 = all_f(*,k+1)
>
>       linterp,w1,f1,w2,f1_2
>
>   frac = findgen(5*0.01)+0.5 ;Fractional distance between 0.0 and -0.5
>
>   for l = 0,4 do begin
>
>       finterp = f1_2*frac(l)+f2*(1-frac(l));interpolated function
>
>   endfor
>
> endfor
>
> end
>
>
>

```

>
>
> I am also getting an error "Attempt to subscript FRAC with L is out of range".
>
> Is there any how can I do that
>
>
>
> thanks in advance

I didn't go through the whole code, but it seems that you are trying to make an array with the command

```
frac = findgen(5*0.01)+0.5
```

I don't see why you don't get an error before the one you mentioned... because that will give you an error.

I think that what you should have wrote is:

```
frac = findgen(5)*0.01+0.5
```

Is this what you want:

```
IDL> PRINT, findgen(5)*0.01+0.5
```

```
0.500000 0.510000 0.520000 0.530000 0.540000
```

or do you want this:

```
IDL> PRINT, -findgen(5)*0.1
```

```
-0.000000 -0.100000 -0.200000 -0.300000 -0.400000
```

or what should frac be?

[for sure indexing a number that is not a number won't get you anywhere...]

Cheers,
Helder

Subject: Re: interpolation between different files
Posted by [abc](#) on Wed, 16 Jan 2013 13:51:55 GMT
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On Wednesday, January 16, 2013 2:28:46 PM UTC+1, Helder wrote:

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>> .....
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as I have 100's of such file I am reading all the file at once and then performing the following
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>
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>> readcol,fname,temp1,temp2
>
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>
>>     all_w(*,i) = temp1
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>>
```

```

>
>> all_f(*,i) = temp2
>
>>
>
>> endfor
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>> f1 = all_f(*,k)
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> or what should frac be?
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>
>
> [for sure indexing a number that is not a number won't get you anywhere...]
>
>
>
> Cheers,
>
> Helder

Hi Helder,

sorry it was typing mistake.I have corrected it. But I don't know yet how I can I proceed with different files. :-(
