## Subject: Re: interpolation between different files Posted by Helder Marchetto on Wed, 16 Jan 2013 13:28:46 GMT View Forum Message <> Reply to Message

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 2100K .....and 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 I = 0.4 do begin
  finterp = f1_2*frac(I)+f2*(1-frac(I));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
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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>>
>
```

```
>>
>
>>
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>>
>
>> 2000K-0.0.txt
>
>>
>> 2000K+0.5.txt
>
>>
>
>> 2100K-0.0.txt
>
>>
>> 2100K+0.5.txt
>>
>
>> .....
>
>>
>> .....
>
>>
>
>> 4000K-0.0.txt
>>
>
>>
>
>>
```

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>> Here is the code
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>
>>
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```

```
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>
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                                                      -0.400000
>
  or what should frac be?
>
>
>
  [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. :-(
```