
Subject: Re: IDL QUESTIONS(time convection)

Posted by [zolile mtumela](#) on Tue, 29 Nov 2011 16:35:19 GMT

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On Nov 29, 3:56 pm, David Fanning <n...@dfanning.com> wrote:

> zolile mtumela writes:

>> I tried to convert time axis to hours in the ff program, but all my
>> efforts are not working. I need some help and suggestion on this
>> convection.I have tried may ways but they are not converting in a
>> right way.

>

> Well, there are a couple of ways to do this. You could
> use the function LABEL_DATE to set up the time axis the
> way you wanted to display the time. For example:

>

> void = Label_Date(Date_Format='%D %M, %Y')
> plot, time, vel, linestyle = 2, xtickformat='label_date'

>

> Or, you can just use the calendar date formatting codes
> directly with the XTickFormat keyword:

>

> plot, time, vel, linestyle = 2, xtickformat='(C(CDI,x,CMoA,x,CYI2))'

>

> These formats obviously aren't correct with this data,
> but I can't tell how the data should be formatted without
> more information about what these Julian numbers mean.

>

> Cheers,

>

> David

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

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

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

Hello David.

The times is 2 hours but given in seconds starting 24782520 ending
24789706 roughly around 7200 seconds.

but the sampling rate is 120 seconds which gives 60 elements.

I want to use 120 sec and as spacing of this data so that I can have
60 number of elements instead of this number 7081.

I think even in x I have to change the way of putting that statement.
the actualy program that we wrote is the ff.

```
;select the data file
```

```
File = Dialog_pickfile(Filter = '*.txt')
```

```
;read the data
```

```

rows = File_lines(file)
data = dblarr(2,rows)
openr,Lun,file,/Get_lun
ReadF,lun, data
data[0,*] = data[0,*]-min(data[0,*]); elapsed time
b = floor(min(data[0,*])); start time
e = ceil(max(data[0,*])); end time
x = Findgen(e-b+1); time
interp_vel = interpol(data[1,*], data[0,*],x); interpolating data
T=120.0

```

```

;draw the plots

```

```

plot,data[0,*]/3600.,data[1,*],linestyle=2
N=n_elements(interp_vel)

```

```

;han = hanning(N, /double)

```

```

spec = fft(interp_vel)
freq_axis = findgen(N)/(N*T)
spec=fft(interp_vel)

```

```

;N=n_elements(interp_vel)

```

```

freq_axis=findgen(N)/(N*T)
plot,freq_axis[0:N/2],abs(spec[0:N/2]),xrange=[0.001,0.005]
end

```

I can put the above data as it is, in the given format:

```

24782555  0.200000
 24782675 -12.0000
 24782795 -6.70000
 24782915  2.40000
 24783035 -11.4000
 24783155  3.40000
 24783275  1.30000
 24783395 -2.80000
 24783515 -8.60000
 24783635  1.30000
 24783755 -0.600000
 24783875 -2.70000
 24783995 -7.40000
 24784115 -8.40000
 24784235  0.100000
 24784355  53.5000
 24784475  23.9000
 24784595 -5.60000

```

24784715	-2.10000
24784835	-10.2000
24784955	-8.20000
24785075	2.30000
24785195	-15.3000
24785315	5.70000
24785435	0.00000
24785555	-9.80000
24785675	54.3000
24785795	-8.60000
24785915	0.00000
24786035	29.6000
24786155	-32.5000
24786275	8.50000
24786515	60.1000
24786635	0.00000
24786755	59.8000
24786875	58.0000
24786995	52.4000
24787115	0.00000
24787235	0.00000
24787355	0.00000
24787475	0.00000
24787595	43.4000
24787715	55.4000
24787835	7.10000
24787955	-2.90000
24788075	22.0000
24788195	13.1000
24788315	-2.60000
24788435	31.5000
24788555	57.2000
24788675	41.8000
24788795	27.8000
24788915	31.4000
24789035	0.400000
24789155	24.6000
24789275	16.3000
24789395	-3.10000
24789515	4.00000
24789635	4.20000

By the above first program I thought it will be simple when using interpol, but I guess i was wrong.

The aims of these plots are find the spetral peaks. Now I can't read the spectrum. It is important for me do sampling rate of 120 seconds.

Lack of understanding is killing me.

I need help and suggestions about solving this problem.

Thank you for ur help

