Subject: Re: merge data-array with calender-date-array
Posted by Chris[6] on Thu, 24 Jul 2008 10:28:44 GMT
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On Jul 23, 11:29 pm, julia.waltersp...@gmail.com wrote:
> the newbie calls out for help again :)
>
> Problem:
> I have two arrays: one with my MODIS-data (float), the second with the
> "matching" calender dates of the data (string, like "01/Jan/2002").
> Say the first number of the "data-array" belongs to the first date of
> the "date-array".
> What's the easiest way to merge those two arrays so that I will be
> able to easily plot the data with the matching dates as x-axis.
>
> Goal/Purpose:
> Plotting a time series of the data with the matching date on the x-
> axis.
>
> probably a super-easy task, but I only come up with rather inelegant
> solutions and I'm sure there's a simple and elegant way to do this.
> Cheers,
> juls

The first thought that comes to mind is to convert the date strings to julian dates using a procedure like juldate from the IDL astronomy user's library. That's kind of clunky since:
1) You have to loop through the date array
2) You have to convert strings like 'jan' to numbers like 1

anyways, it would look like

```
nrec=n_elements(date_array)
output=fltarr(2,nrec)
output[1,*]=data_array

for i=0L, n_elements(date_array)-1, 1 do begin
 date=strsplit(date_array[i],"/",/extract)
 case date[1] of
   'Jan': month=1
    etc etc
 endcase
 juldate,[float(date[2]),month,float(date[0])],jd
 output[0,i]=jd
endfor
```

This is probably the inelegant solution you are hoping to avoid?

chris

Subject: Re: merge data-array with calender-date-array
Posted by Bob[3] on Thu, 24 Jul 2008 12:58:19 GMT
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On Jul 24, 5:29 am, julia.waltersp...@gmail.com wrote:
> the newbie calls out for help again :)
>
> Problem:
> I have two arrays: one with my MODIS-data (float), the second with the
> "matching" calender dates of the data (string, like "01/Jan/2002").
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> solutions and I'm sure there's a simple and elegant way to do this.
> Cheers,
> juls

[Chris I read the OP differently - that what is needed is to place the
string dates on the axis for the time series plot of the data]

Juls,

I think the TICKNAME graphic keyword for your PLOT command may help
you.
something like:
plot, data, xticks=xnum, xtickname=date
where xnum is the number of dates.

Bob.

Subject: Re: merge data-array with calender-date-array
Posted by julia.walterspiel on Thu, 24 Jul 2008 15:32:07 GMT
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> [Chris I read the OP differently - that what is needed is to place the
> string dates on the axis for the time series plot of the data]

yes Bob, this is what I'm trying to do.

> I think the TICKNAME graphic keyword for your PLOT command may help
> you.
> something like:
> plot, data, xticks=xnum, xtickname=date
> where xnum is the number of dates.

The problem with the tickname is, as far as i understand, that it's a string array holding only up to 60 elements. My date-array contains 99 dates.
Or am I misunderstanding something?
cheers

Subject: Re: merge data-array with calender-date-array
Posted by julia.walterspiel on Thu, 24 Jul 2008 15:47:29 GMT
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p.s. I have monthly averaged data, so 1month = 1 datapoint = 1 date (e.g. 1/01/2002)

I don't need to plot ALL of the 99 dates, it would be sufficient if only the year (2000, 2001 etc) would be plotted, but not the day and month (and the year only ONCE for the following 12 data points). Does this avoid the problem with the max of 60 elements? and if yes, how on earth is it done? :)
cheers
juls

Subject: Re: merge data-array with calender-date-array
Posted by Bob[3] on Fri, 25 Jul 2008 13:03:48 GMT
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On Jul 24, 11:47 am, julia.waltersp...@gmail.com wrote:
> p.s. I have monthly averaged data, so 1month = 1 datapoint = 1 date
> (e.g. 1/01/2002)
>
> I don't need to plot ALL of the 99 dates, it would be sufficient if
> only the year (2000, 2001 etc) would be plotted, but not the day and
> month (and the year only ONCE for the following 12 data points). Does
> this avoid the problem with the max of 60 elements? and if yes, how on
> earth is it done? :)
> cheers
> juls

Sounds like you might want to convert your date array to julian date
(as Chris suggestted) after all.
Then use "plot, jdate, data" with tickunits='years', etc. There's
lots of tick keywords, so you should be abble to get a plot similar to
what you describe.
