Subject: Re: array subtraction
Posted by R.Bauer on Wed, 05 Nov 2008 15:58:16 GMT
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julia.walterspiel@gmail.com schrieb:
> hey guys
> SOS call from the newbie:
>
> I've got two data arrays, one of length 134 (=a), the other of length
> 75 (=b) with monthly cloud cover data from modis terra and aqua.
> Data from Terra starts feb 2000, data from Aqua starts july 2002.
>
> I want to calculate and plot the difference in cloud cover for each
> month from Terra and Aqua. so far so good.
>
> the two data arrays are "connected" by two (separate) time arrays c
> (for Terra, feb 2000 - now) and d (for Aqua july 2002 - now).
> that means, my data array "b" starts only somewhere at index so-and-so
> of "a" (not sure where exactly).
> Now, how can I tell IDL to subtract the two arrays at the right point,
> meaning subtract the terra-value on july 2002 from the aqua value on
> the same date?
>
> I'm sure everyone of you can do that with both eyes closed and it
> can't be difficult but I couldn't find any help online.
> thanks!
> juls

Hi Julia

no not with both eyes closed. It is not easy to give a correct answer.
Well you can substract appels from bananas but this will make no sense.

if the data does not change very fast on a better time resolution you
may want to interpolate the data of one table to the other ones time
base. And you can cut off the region where you don't have a close
mapping in time.

If the data does have a big variation in a better time resolution you
should not interpolate. Then you can create for example a mean value for
each month.

cheers
Reimar

Subject: Re: array subtraction

Posted by julia.walterspiel on Wed, 05 Nov 2008 16:15:50 GMT
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>
> If the data does have a big variation in a better time resolution you
> should not interpolate. Then you can create for example a mean value for
> each month.
>

Hi Reimar,
each data value is the mean value for one month. so i have one value
for jan, one for feb etc... so no need to interpolate. I only need to
know how to tell IDL WHERE to start subtracting one array from the
other
cheers,
juls

Subject: Re: array subtraction
Posted by Brian Larsen on Wed, 05 Nov 2008 16:29:15 GMT
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On Nov 5, 11:15 am, julia.waltersp...@gmail.com wrote:
>> If the data does have a big variation in a better time resolution you
>> should not interpolate. Then you can create for example a mean value for
>> each month.
>
> Hi Reimar,
> each data value is the mean value for one month. so i have one value
> for jan, one for feb etc... so no need to interpolate. I only need to
> know how to tell IDL WHERE to start subtracting one array from the
> other
> cheers,
> juls

What do your time arrays look like? Is the answer going to be finding
the right spot in the two time arrays that match? Maybe you can post
a segment of the arrays and an explanation.

Brian

---------- ----------
Brian Larsen
Boston University
Center for Space Physics
http://people.bu.edu/balarsen/Home/IDL

Subject: Re: array subtraction
Posted by Wout De Nolf on Wed, 05 Nov 2008 16:29:47 GMT
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On Wed, 5 Nov 2008 07:25:10 -0800 (PST), julia.walterspiel@gmail.com
wrote:

> hey guys
> SOS call from the newbie:
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> the same date?
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> I'm sure everyone of you can do that with both eyes closed and it
> can't be difficult but I couldn't find any help online.
> thanks!
> juls

So you only need to get i in this:
diff = a[i:*]-b

In general I would say
i=value_locate(c,d[0])
but what format do the time/data arrays have (string, Julian Day
Number,...)?

Subject: Re: array subtraction
Posted by Spon on Wed, 05 Nov 2008 16:39:29 GMT
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On Nov 5, 4:29 pm, Wox <s...@nomail.com> wrote:
> On Wed, 5 Nov 2008 07:25:10 -0800 (PST), julia.waltersp...@gmail.com
> wrote:
>
>

>
>> hey guys
>> SOS call from the newbie:
>
>> I've got two data arrays, one of length 134 (=a), the other of length
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>> Data from Terra starts feb 2000, data from Aqua starts july 2002.
>
>
> So you only need to get i in this:
> diff = a[i:*]-b
>

Hi,

Well if the time intervals are the same in both arrays (1 month), and
the last data point in both arrays is the same timepoint ('now'),
then I would do it this way:

na = n_elements(a)
nb = n_elements(b)

diff = abs(b-a[na-nb:*]) ; Given a>b as in your example

Or, if you really want a more general solution:
diff = abs(b[(nb-na>0):*] - a[(na-nb>0):*])

Regards,
Chris

Subject: Re: array subtraction
Posted by julia.walterspiel on Mon, 10 Nov 2008 15:59:33 GMT
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hi guys

thanks for your input. Chris, you where right, when both time arrays
have the same end-point ('now'), wich was the case, it's easy.
Fortunately, i could chop them to have the same end-date so your
suggestions worked fine with a couple of small changes.

cheers, juls
