## Subject: Re: How to average every nth data? Posted by Chris W on Thu, 04 Nov 2010 18:14:21 GMT

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```
On Nov 4, 12:53 pm, go cats <br/>
<br/>
beardown...@gmail.com> wrote:
> Dear Gurus.
>
> Hope someone will help me how to figure this out.
> I've been keep trying to do some spectral resampling (just simple
> average) with ASD data.
> ASD data is a two dimensional array;
> wavelength data
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> 351
              0.001176
> 352
             0.001147
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> 2500
              0.0004311
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> MS excel seems to be able to handle it, but it wouldn't be a good idea
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  I really appreciate if someone could give me tip(s).
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> Thanks.
> Kim
put the data into separate arrays
then reform them
rw = reform(w, 3, n_elements(w)/3); make sure w has a multiple of 3
length
rd = reform(d, 3, n_elements(d)/3)
get the mean across the 1st dimension for the average
result d = mean(rd, dimension = 1)
get the minimum across the wavelengths
```

## Chris

```
Subject: Re: How to average every nth data?
Posted by Juggernaut on Thu, 04 Nov 2010 19:24:07 GMT
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On Nov 4, 1:53 pm, go cats <br/> <br/>beardown...@gmail.com> wrote:
> Dear Gurus,
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> for processing several hundres files.
>
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> Thanks,
> Kim
You can also do something like this.
x = indgen(50)
mean_1 = mean(x)
```

 $mean_2 = mean(x[0:*:2])$ 

```
mean_3 = mean(x[0:*:3])
```

The third element in your indexing indicates a skipping parameter.

```
Subject: Re: How to average every nth data?
Posted by beardown911 on Thu, 04 Nov 2010 20:12:25 GMT
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```

```
On Nov 4, 1:14 pm, Chris W < cwood1...@gmail.com > wrote:
> On Nov 4, 12:53 pm, go cats <beardown...@gmail.com> wrote:
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> rd = reform(d, 3, n_elements(d)/3)
>
> get the mean across the 1st dimension for the average
> result d = mean(rd,dimension = 1)
  get the minimum across the wavelengths
 result w = min(rw, dimension = 1)
>
 Chris- Hide quoted text -
> - Show quoted text -
Thanks Chris,
That works perfectly.
Kim
```

Subject: Re: How to average every nth data?
Posted by beardown911 on Thu, 04 Nov 2010 20:13:18 GMT
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```
On Nov 4, 2:24 pm, Bennett < juggernau...@gmail.com> wrote:
> On Nov 4, 1:53 pm, go cats <beardown...@gmail.com> wrote:
>
>
>
>
>
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>> Kim
> You can also do something like this.
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> mean_1 = mean(x)
> mean_2 = mean(x[0:*:2])
> mean_3 = mean(x[0:*:3])
>
  The third element in your indexing indicates a skipping parameter.- Hide quoted text -
> - Show quoted text -
Bennet,
Thanks for the tips.
Kim
Subject: Re: How to average every nth data?
Posted by beardown911 on Thu, 04 Nov 2010 20:31:39 GMT
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On Nov 4, 1:14 pm, Chris W < cwood1...@gmail.com> wrote:
  On Nov 4, 12:53 pm, go cats <br/> <br/>beardown...@gmail.com> wrote:
```

> > >

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> put the data into separate arrays
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> length
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> get the mean across the 1st dimension for the average
> result_d = mean(rd,dimension = 1)
> get the minimum across the wavelengths
> result_w = min(rw, dimension = 1)
 Chris- Hide quoted text -
>
> - Show quoted text -
```

## Hi Chris,

The "dimension" flag may not be used in the "mean" function. wavelength sorting was successful, but only one (total) mean value was calculated.

I am digging out what I did wrong.

Thanks, Kim

Subject: Re: How to average every nth data?
Posted by Michael Galloy on Thu, 04 Nov 2010 20:55:57 GMT
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```
On 11/4/10 2:31 PM, go cats wrote:
> On Nov 4, 1:14 pm, Chris W<cwood1...@gmail.com> wrote:
>> On Nov 4, 12:53 pm, go cats<br/>beardown...@gmail.com> wrote:
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> Thanks.
> Kim
IDL 8.0 added the DIMENSION keyword for MEAN.
Mike
www.michaelgalloy.com
Research Mathematician
Tech-X Corporation
```

Subject: Re: How to average every nth data? Posted by rogass on Thu, 04 Nov 2010 23:23:25 GMT

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```
On 4 Nov., 18:53, go cats <beardown...@gmail.com> wrote:
> Dear Gurus,
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> I really appreciate if someone could give me tip(s).
> Thanks,
> Kim
Hi Kim,
you could also use this:
range=3
new_w = total(reform(w,range,n_elements(w)/range),1)/range
or if you have missing values:
missing=0
new_w = total(((rr=reform(w,range,n_elements(w)/range),1)))/total(rr
ne missing,1)
Cheers
CR
```

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```
On Nov 4, 4:55 pm, Michael Galloy <mgal...@gmail.com> wrote:
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> Research Mathematician
> Tech-X Corporation
If you're on pre-8, you can use the modifications of the intrinsic
routines here:
http://web.astroconst.org/jbiu/#MOMENTDIMEN
-Jeremy.
```

Subject: Re: How to average every nth data?
Posted by beardown911 on Fri, 05 Nov 2010 15:09:30 GMT
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On Nov 5, 8:54 am, Jeremy Bailin <astroco...@gmail.com> wrote:

```
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>
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 -Jeremy.- Hide quoted text -
  - Show quoted text -
Hi all,
```

Thank you all for your invaulable tips and code examples.

Kim