Subject: 3D matrix
Posted by g.nacarts on Thu, 04 Dec 2014 11:09:26 GMT
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Hi

I have a 3D matrix A = Array[100, 200, 200]
A = [time, x, y]

I want to create a matrix B which is the average of the first 10 time points (total is 100 time points). I should end up with a 2D matrix B=Array[200,200].

Can anyone help please?

Subject: Re: 3D matrix
Posted by Helder Marchetto on Thu, 04 Dec 2014 11:18:06 GMT
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On Thursday, December 4, 2014 12:09:29 PM UTC+1, g.na...@gmail.com wrote:
> Hi
>
> I have a 3D matrix A = Array[100, 200, 200]
> A = [time, x, y]
>
> I want to create a matrix B which is the average of the first 10 time points (total is 100 time points). I should end up with a 2D matrix B=Array[200,200].
>
> Can anyone help please?

How about
b = mean(a[0:9,*,*],dimension=1)

is this what you mean?

Helder

Subject: Re: 3D matrix
Posted by g.nacarts on Thu, 04 Dec 2014 11:45:25 GMT
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dimension keyword is not allowed in call to mean.

I tried the b = mean(a[0:9,*,*]) but I end up with a single value which is not what I need.

Subject: Re: 3D matrix
Posted by g.nacarts on Thu, 04 Dec 2014 11:53:06 GMT
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I have an old version of IDL 6.4. I don't know if this causes the problem and I can't use the keyword dimension

Subject: Re: 3D matrix
Posted by Helder Marchetto on Thu, 04 Dec 2014 11:55:14 GMT
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On Thursday, December 4, 2014 12:45:26 PM UTC+1, g.na...@gmail.com wrote:
> dimension keyword is not allowed in call to mean.
>
> I tried the b = mean(a[0:9,*,*]) but I end up with a single value which is not what I need.

```
IDL> a = findgen(100,200,200)
IDL> b = mean(a[0:9,*,*], dimension=1)
IDL> help, b
B               FLOAT     = Array[200, 200]
IDL> !version
{
   "ARCH": "x86_64",
   "OS": "Win32",
   "OS_FAMILY": "Windows",
   "OS_NAME": "MicrosoftWindows",
   "RELEASE": "8.4",
   "BUILD_DATE": "Sep272014",
   "MEMORY_BITS": 64,
   "FILE_OFFSET_BITS": 64
}
```

I guess you don't have the latest version of IDL.
Well, calculating the mean is not that difficult:

```
b = total(a[0:9,*,*], 1)/10.0
```

Cheers,
Helder