
Subject: DIL interpolation over n dimensions

Posted by [Pascal DoctorDisco](#) on Tue, 25 Feb 2014 16:04:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

hello,

I'm looking for an N-D interpolation (on lookup tables) in IDL,
something like $V_q = \text{interp}(X_1, X_2, X_3, \dots, V, X_{1q}, X_{2q}, X_{3q}, \dots)$ from $M^{***}B$

Do you have any idea, maybe using some recursive call to interpolate, but I'm pretty lost using this kind of feature in IDL,

Or did someone kept the routine from Peter Albert `interpolate_n.pro`
The link here belong looks dead

Best regards
Pascal

Peter Albert writes:

> Here is my recursive treasure: `interpolate_n`, extending IDL's
> `INTERPOLATE` routine to up to 8 dimensions. I have to admit that is has
> been years since I wrote it and I am not completely sure any more how
> the routine actually works, but it still seems to give the right
> results ... :-) The recursive part is about getting the neighbouring
> values for each dimension, I guess.
>
> http://www.met.fu-berlin.de/idl/interpolate_n.pro

Subject: Re: DIL interpolation over n dimensions

Posted by [Pascal DoctorDisco](#) on Tue, 25 Feb 2014 16:12:11 GMT

[View Forum Message](#) <> [Reply to Message](#)

Le mardi 25 février 2014 17:04:49 UTC+1, Pascal DoctorDisco a écrit :

> hello,
>
> I'm looking for an N-D interpolation (on lookup tables) in IDL,
>
> something like $V_q = \text{interp}(X_1, X_2, X_3, \dots, V, X_{1q}, X_{2q}, X_{3q}, \dots)$ from $M^{***}B$
>
>
>
> Do you have any idea, maybe using some recursive call to interpolate, but I'm pretty lost using
this kind of feature in IDL,
>
>
>
> Or did someone kept the routine from Peter Albert `interpolate_n.pro`

>
> The link here belong looks dead
>
>
>
> Best regards
>
> Pascal
>
>
>
> Peter Albert writes:
>
>
>
>> Here is my recursive treasure: interpolate_n, extending IDL's
>
>> INTERPOLATE routine to up to 8 dimensions. I have to admit that is has
>
>> been years since I wrote it and I am not completely sure any more how
>
>> the routine actually works, but it still seems to give the right
>
>> results ... :-) The recursive part is about getting the neighbouring
>
>> values for each dimension, I guess.
>
>>
>
>> http://wew.met.fu-berlin.de/idl/interpolate_n.pro

sorry, I mean IDL interpolation over n dimensions of course

thanks for your help

Subject: Re: DIL interpolation over n dimensions
Posted by [Andy Sayer](#) on Tue, 25 Feb 2014 17:02:42 GMT
[View Forum Message](#) <> [Reply to Message](#)

I have used the routine ninterpolate.pro before (note this is not my upload of it, just a link to the same piece of code): <https://code.google.com/p/idl-moustakas/source/browse/trunk/impro/pro/math/ninterpolate.pro?r=678>

On Tuesday, February 25, 2014 11:12:11 AM UTC-5, Pascal DoctorDisco wrote:

> Le mardi 25 février 2014 17:04:49 UTC+1, Pascal DoctorDisco a écrit :
>
>> hello,

>
>>
>
>> I'm looking for an N-D interpolation (on lookup tables) in IDL,
>
>>
>
>> something like $V_q = \text{interp}(X_1, X_2, X_3, \dots, V, X_{1q}, X_{2q}, X_{3q}, \dots)$ from $M^{****}B$
>
>>
>
>>
>
>>
>
>> Do you have any idea, maybe using some recursive call to interpolate, but I'm pretty lost
using this kind of feature in IDL,
>
>>
>
>>
>
>>
>
>> Or did someone kept the routine from Peter Albert `interpolate_n.pro`
>
>>
>
>> The link here belong looks dead
>
>>
>
>>
>
>>
>
>> Best regards
>
>>
>
>> Pascal
>
>>
>
>>
>
>>
>
>>
>

```
>> Peter Albert writes:
>
>>
>
>>
>
>>
>
>>> Here is my recursive treasure: interpolate_n, extending IDL's
>
>>
>
>>> INTERPOLATE routine to up to 8 dimensions. I have to admit that is has
>
>>
>
>>> been years since I wrote it and I am not completely sure any more how
>
>>
>
>>> the routine actually works, but it still seems to give the right
>
>>
>
>>> results ... :-) The recursive part is about getting the neighbouring
>
>>
>
>>> values for each dimension, I guess.
>
>>
>
>>>
>
>>
>
>>> http://wew.met.fu-berlin.de/idl/interpolate\_n.pro
>
>
>
>
> sorry, I mean IDL interpolation over n dimensions of course
>
>
>
>
> thanks for your help
```

Subject: Re: DIL interpolation over n dimensions
Posted by [David Fanning](#) on Tue, 25 Feb 2014 17:09:57 GMT
[View Forum Message](#) <> [Reply to Message](#)

AMS writes:

> I have used the routine ninterpolate.pro before (note this is not my upload of it, just a link to the same piece of code): <https://code.google.com/p/idl-moustakas/source/browse/trunk/impro/pro/math/ninterpolate.pro?r=678>

That's a JD Smith routine. That's about as solid as it gets. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thue. ("Perhaps thou speakest truth.")
