Subject: Re: Newbie question concerning summations/loops in IDL
Posted by Wox on Wed, 30 Jul 2008 08:33:22 GMT
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On Tue, 29 Jul 2008 23:19:19 -0700 (PDT), mbweller@gmail.com wrote:

> On Jul 29, 7:27ï¿½pm, Chris <beaum...@ifa.hawaii.edu> wrote:
>> On Jul 29, 1:12ï¿½pm, mbwel...@gmail.com wrote:
>>
>>
>>
>>> Hello,
>>
>>> I have need of some experienced users with sort of a newbie question.
>>
>>> I am writing a code that needs a summation in it, this is what I have
>>> thus far:
>>
>>> v= ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½; volume of region
>>> a= ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½; area of region
>>> o= 60*!pi/180 ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ; fault dip angle
>>> g= ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½; scaling factor
>>> t= 150 ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½;
elastic lithosphere thickness
>>> h= ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½; depth of faulting
>>
>>> ind_small = where(thaext[1,*] lt t)
>>> ind_large = where(thaext[1,*] ge t)
>>> thaext_small = thaext[*,ind_small]
>>> thaext_large = thaext[*,ind_large]
>>
>>> ens=(sin(o)*cos(o)/v)* ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½; horizonatal normal strain for small faults
>>> enl=(cos(o)/a)* ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ; horizonatal normal
strain for
>>> large faults
>>> evs=(-sin(o)*cos(o)/v)* ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ; vertical normal strain for small faults
>>> evl=(-cos(o)/a)* ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½
ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½; vertical normal strain for
large faults
>>
>>> The summation needs to be after * in the ens, enl, evs and evl

>>> fields.
>>> It must be of the form:
>>> summation N, i=0 [Di Li Hi] for small faults, where N = ind_small, Hi=
>>> T/sin(o) ï¿½and
>>> summation N, i=0 [Di Li] for large faults, where N=ind_large
>>
>>> Could anyone provide any insight/guidance?
>>
>>> Thanks,
>>> ~Matt
>>
>> I don't know what some of your variables are (Li? Di?), but you might
>> want to look at TOTAL() to start- you can use that to do most
>> summation tasks.
>
> L and D are data from a ascii table that is already ready in, while i
> is the indice of the summation. I've looked at total, but the examples
> were sorely lacking. I was hoping that perhaps a useful example, given
> my code and desire, could be supplied.
>
> ~Matt

I'm not sure what you mean with "summation N, i=0 [Di Li Hi] ... where N=ind_small". The index i goes from 0 to what? And what are you summing? D[i]*L[i]*H[i]?
