Subject: Re: Oooh...! It's harder than I thought!! To get average of each line using only meaningful data
Posted by Conor on Tue, 24 Jul 2007 12:47:23 GMT
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On Jul 24, 5:47 am, weitk...@esrf.fr wrote:
> On Jul 24, 10:32 am, Ingo von Borstel <newsgro...@planetmaker.de>
> wrote:
>
>> where_notzero = WHERE(data_arr NE 0,n_notzero)
>> average = total(data_arr) / n_notzero
>
> Or simply,
>
> average = TOTAL(data_arr) / TOTAL(data_arr NE 0).
>
> Cheers,
> Timm

It seems to me that the above two examples both find the average over the entire data array, not each row individually. To do that, I would do something like this:

totals = total(data_arr,1)/total(data_arr<1,1)

total(data_arr,1) returns a row vector where each element is the total of a single line of data. total(data_arr<1,1) does essentially the same thing, but first it imposes a ceiling on the array, so that no value is greater than 1. Then, when you total across a line, what you get is the total number of non-zero elements. So, you are dividing the sum of every line by the number of non-zero elements in every line (the average). The result is a row vector, not a column vector though. If that's a problem, you can always:

totals = reform(totals,1,numlines)

Also, I've assumed that data_arr is the same thing as in the above examples. I would make a slight change to the reading part of the above example though. I would change this line:

FOR i=0,n_datastrgs-1 DO data_arr[i] = DOUBLE(data_strgs[i])

To this:

data_arr = double(data_strgs)

There's no need for the for loop.