
Subject: Re: Question about the TOTAL function.

Posted by [rexford.newbould](#) on Fri, 15 Apr 2005 16:05:47 GMT

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(Your question is actually pretty simple, so even I can field it.)

I think you're asking if you can sum along a single dimension in a matrix, e.g.:

for i = 0, n-1 do \$

 SUMX = TOTAL(matrix[i,*])

If so, check the help for total. You can pass an optional argument which is the dimension along which to sum.

SUMX = TOTAL(matrix,0)

SUMY = TOTAL(matrix,1)

Cheers,

Rex

Nuno Oliveira wrote:

> I have a question that somebody that works with IDL many had faced before.

> Imagine I have a matrix(X,Y), no matter the type of variable, and if want na

> array with the projection along de x axis, something like

>

>

>

> for i = 0, n-1 do \$

>

> SUMX = TOTAL(i, *)

>

>

>

> How can I do it without the FOR cicle.

>

>

>

> If I try

>

>

>

> SUMX[0:N-1] = TOTAL(0:N-1, *)

>

>

>

> The function returns the total of the matrix for the every position
of SUMX.
> Is there a way that I can do it quicker?
>
>
>
> Thanks in advance,
>
>
>
> Greeting,
>
>
>
> Nuno.

Subject: Re: Question about the TOTAL function.
Posted by [James Kuyper](#) on Fri, 15 Apr 2005 16:08:15 GMT
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Nuno Oliveira wrote:

> I have a question that somebody that works with IDL many had faced before.
> Imagine I have a matrix(X,Y), no matter the type of variable, and if want na
> array with the projection along de x axis, something like
>
>
>
> for i = 0, n-1 do \$
>
> SUMX = TOTAL(i, *)

; I presume you mean
sumx[i] = TOTAL(matrix[i,*])

> How can I do it without the FOR cicle.

sumx = TOTAL(matrix, 2)

; Similarly, if you want to calculate
sumy[j] = TOTAL(matrix[:,j])

; you can just use:
sumy = TOTAL(matrix,1)

Subject: Re: Question about the TOTAL function.

Have a look at the "dimension" parameter of the TOTAL function. You need to do

```
SUMX = TOTAL(matrix, 2)
```

or maybe 1 instead of 2 -- I didn't really understand which dimension you want to sum over.

Benjamin

Nuno Oliveira wrote:

```
> I have a question that somebody that works with IDL many had faced before.  
> Imagine I have a matrix(X,Y), no matter the type of variable, and if want na  
> array with the projection along de x axis, something like  
>  
>  
>  
>         for i = 0, n-1 do $  
>  
> SUMX = TOTAL(i, *)  
>  
>  
>  
> How can I do it without the FOR cicle.  
>  
>  
>  
> If I try  
>  
>  
>  
>         SUMX[ 0:N-1 ] = TOTAL( 0:N-1, * )  
>  
>  
>  
> The function returns the total of the matrix for the every position of SUMX.  
> Is there a way that I can do it quicker?  
>  
>  
>  
> Thanks in advance,  
>  
>  
>  
> Greeting,
```

>
>
>
> Nuno.
>
>
