
Subject: Re: Sum of elements in an array
Posted by [steinhh](#) on Thu, 09 Jun 1994 12:17:10 GMT
[View Forum Message](#) <> [Reply to Message](#)

In article <2t6tb9\$ftb@due.uninett.no>, ragnar@kvarf.fi.uib.no (Ragnar Aas) writes:

|> I'm working on a project where I need to sum the result of many IF-statements.
|> In order to make this operation faster, I want to vectorize it. The way I
|> want it is :
|>
|> sum=(array_1.element EQ 1)
|>
|> with sum a scalar, and array_1 an array. (BIG surprise!)
|> In other words : If array_1.element equals 1, then add 1 to sum.
|> How do I go about to solve this?
|>

I think sum = total(array_1 eq 1) does the trick.
In general, a logical operation on an array results in an array of
(BYTE) logical values, with 0 for false, and 1 for true.
TOTAL() adds up to a float, so no overflow.

|> Thanx in advance.
|>
|> Ragnar Aas

Stein Vidar

Subject: Re: Sum of elements in an array
Posted by [velt](#) on Thu, 09 Jun 1994 19:06:54 GMT
[View Forum Message](#) <> [Reply to Message](#)

In article ftb@due.uninett.no, ragnar@kvarf.fi.uib.no (Ragnar Aas) writes:

> I'm working on a project where I need to sum the result of many IF-statements.
> In order to make this operation faster, I want to vectorize it. The way I
> want it is :
>
> sum=(array_1.element EQ 1)
>
> with sum a scalar, and array_1 an array. (BIG surprise!)
> In other words : If array_1.element equals 1, then add 1 to sum.
> How do I go about to solve this?
>
> Thanx in advance.
>
> Ragnar Aas

Try:

```
sum=n_elements(where(array_1.element EQ 1))
```

Or, when the values of element can only be 0 or 1:

```
sum=total(array_1.element)
```

Good Luck.

Robert Velthuizen
Dept of Radiology
University of South Florida.
