
Subject: Re: Threads in IDL 7.0

Posted by [Foldy Lajos](#) on Mon, 27 Oct 2008 16:11:39 GMT

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

On Mon, 27 Oct 2008, Bernhard Reinhardt wrote:

> David Fanning wrote:

>> Bernhard Reinhardt writes:

>>

>>> I have have read the Chapter "Multithreading in IDL" in the IDL-Help. As
>>> far as I can see some IDL functions use threads.

>>>

>>> Basically I want to count elements of a big array that exceed a given
>>> number.

>>>

>>> count=0

>>> for i = 0, 200000 do begin

>>> if array[i] ge 10. then count++

>>> endfor

>>

>> How about something like this:

>>

>> indices = Where(array GE 10, count)

>

> Well, I wasn't really precise. I'm not doing this on a 1d-array but on a

> 4d-array, where 2 dimensions are time and 2 dimensions are space. I try to

> filter special events in time and count those on a 2d-map. Here's the code:

>

> for i = 0, N_ELEMENTS(STRUC.data[* ,0,0,0])-1 do begin

> for j = 0, N_ELEMENTS(STRUC.data[0,* ,0,0])-1 do begin

> indices = Where(STRUC.data[i,j,* ,*] GE 150., count)

You are accessing elements in the wrong order, resulting in cache misses
if struc.data is greater than the CPU data cache.

> freq [i,j]=count

> endfor

> endfor

>

Try this:

d=transpose(struc.data, [2,3,0,1])

dims=size(d, /dim)

for i = 0, dims[2]-1 do begin

for j = 0, dims[3]-1 do begin

indices = Where(d[* ,*,i,j] GE 150., count)

freq [i,j]=count

endfor
endfor

regards,
lajos
