Subject: Re: Threads in IDL 7.0 Posted by Foldy Lajos on Mon, 27 Oct 2008 16:11:39 GMT

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On Mon, 27 Oct 2008, Bernhard Reinhardt wrote:

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> 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
> 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			