Subject: Re: Threads in IDL 7.0
Posted by Bernhard Reinhardt on Mon, 27 Oct 2008 15:44:29 GMT
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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 wasnï¿½t really precise. Iï¿½m 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. Hereï¿½s 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)
    freq [i,j]=count
  endfor
endfor
```

Although the array data is quite big "where" only getï¿½s a small portion to see of it. So thread-pool isnï¿½t invoked. => CPU-Usage still 50%

I also asked some more IDL-experienced colleagues about generating threads manually but they also didnï¿½t know about anything like that :(

BUT using your method still brought me a gain of 3.6 times faster execution :)

regards

Bernhard