Subject: Re: counting bits
Posted by Dick Jackson on Thu, 20 Feb 2003 22:53:24 GMT
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"JD Smith" <jdsmith@as.arizona.edu> wrote in message
news:pan.2003.02.20.15.43.26.137656.2731@as.arizona.edu...
> On Wed, 19 Feb 2003 08:47:31 -0700, Dick Jackson wrote:
>
>> IDL> CountingBits
>> IShft-AND-lookup method: 2.063 seconds. tot = 46137328
>> Byte-lookup method: 0.691 seconds. tot = 46137292
>>
>> Uh-oh... I set the Total calls to have /Double and then we both get
the
>> same (I hope correct) answer:
>>
>> IDL> CountingBits
>> IShft-AND-lookup method: 2.063 seconds. tot = 46137344
>> Byte-lookup method: 0.671 seconds. tot = 46137344
>
> That's very strange. Here's what I get for my four independent
> methods without any /DOUBLE:
>
> 3.4187140
> 46137344
> 6.9928349
> 46137344
> 1.2564960
> 46137344
> 1.2767580
> 46137344

In case anyone's still following this exercise, we found that if 'bits'
is a byte array (not integer) my floating-point problem goes away, and
makes it faster! Adding this after 'bits' is defined will do it:

bits = Byte(bits)

... and gives another nice speedup:

IDL> CountingBits
IShft-AND-lookup method: 1.883 seconds.
tot = 46137344
Byte-lookup method: 0.541 seconds.
tot = 46137344

Cheers,
--

-Dick

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