Subject: Re: bits into bytes
Posted by wlandsman on Thu, 02 Aug 2012 03:19:53 GMT
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On Wednesday, August 1, 2012 7:55:16 PM UTC-4, Heinz Stege wrote:
>
> processor. However the /PRESERVE_TYPE option of the TOTAL function
>
> should speed up the calculation.
>

Heinz,

Thanks for reminding me of the ISHFT() function and the /PRESERVE_TYPE keyword to TOTAL(). Actually, rather than use TOTAL(), I found the fastest method when dealing with millions of values is to use matrix multiply, as in the following example:

;Create an 8 x n byte array of random 0s and 1s. This will be compressed by a factor of 8 by storing ;each value in a bit rather than a byte

```
n = 1000000
x = byte(round(randomu(seed,8,n)))

yy = [128b,64b,32b,16b,8b,4b,2b,1b]
return, byte(yy#x)
```

The above code would be slightly faster if there were the equivalent of /PRESERVE_TYPE for matrix multiplication. Right now -- rather surprisingly, I think -- matrix multiplication of two byte arrays yields a long array. But the code is very fast anyway. --Wayne