Subject: Re: bits into bytes Posted by Heinz Stege on Wed, 01 Aug 2012 23:55:16 GMT

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On Wed, 1 Aug 2012 15:49:21 -0700 (PDT), wlandsman wrote:

```
> I have to write an array of "on-off" states in which the values are stored as bits. So if I have > x = [1b,0b,1b,1b,1b,0b,1b,1b] > i want to convert this to a single byte value. (This is the inverse of David Fanning's bitget.pro function.) > One way to to do this is > IDL> yy = [128b,64b,32b,16b,8b,4b,2b,1b] > IDL> print,byte( total(yy*x)) > 187b
```

> But there must be a way to do this using masking rather than multiplication. I just can't figure it out right now. (The conversion will be done for millions of bits). Thanks, --Wayne

You can use ISHFT instead of the multiplication:

```
print,total(ishft(x,7b-bindgen(8)),/preserve_type)
```

But I don't expect any advantages on use of a floating point processor. However the /PRESERVE\_TYPE option of the TOTAL function should speed up the calculation.

Cheers, Heinz