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