
Subject: Re: bits from bytes --> DANGEROUS when used in IF
Posted by [Martin Schultz](#) on Mon, 22 Dec 1997 08:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

Robert Moss wrote:

>
> Kelly Dean wrote:
>>
>> I need to extract the first 3 bits from a byte.
>>
>> Any suggestions?
>>

[...]

> b = 11B ; a byte of data

[...] individual bit.

> If what you want is the first three bits together,
> it would simply be (b AND 7) = 3
>

Be careful with this expression in IF statements !

This can be very dangerous, because of IDL's handling of TRUE and FALSE values. Often, what you want to do is something like

if (bit_set(b)) then ...

Now try

if (b AND 7) then print,"GREAT !"

This will work for b=11B, but not for b=10B !

The solution is :

if ((b AND 7) gt 0) then print,"GREATER !"

Martin.

Dr. Martin Schultz
Department for Earth&Planetary Sciences, Harvard University
186 Pierce Hall, 29 Oxford St., Cambridge, MA-02138, USA

phone: (617)-496-8318

fax : (617)-495-4551

e-mail: mgs@io.harvard.edu

IDL-homepage: <http://www-as.harvard.edu/people/staff/mgs/idl/>
