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Subject: Re: Byte to Real conversion

Posted by [Liam Gumley](#) on Fri, 19 Feb 1999 08:00:00 GMT

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Michael A. Wirth wrote:

> I am reading some data in from an Magnetic Resonance image which stores  
> information about the image in  
> a 14336 byte header. I want to extract some of the data from this header  
> and am having a problem  
> with converting data to integers and reals. The integers are 2-bytes and  
> the reals 4-bytes in length. How does  
> one convert 4 bytes into a real number?

An easy way is to use a structure. For example, let's say the header format is:

Bytes 0:9 are junk

Bytes 10:11 are a signed 16 bit integer

Bytes 12:15 are a 32 bit float

Bytes 16:14335 are junk

To read the header:

```
header = { junk1 : bytarr( 10 ), $ ; array of 10 bytes
           word1 : 0, $           ; short integer
           word2 : 0L, $          ; long integer
           junk2 : bytarr( 14320 ) } ; array of 14320 bytes
openr, lun, 'mri.dat', /free_lun
readu, lun, header
free_lun, lun
help, header.word1, header.word2
```

Cheers,

Liam.

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