
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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