
Subject: inversed Real

Posted by [Hans-Martin Latuske](#) on Wed, 04 Feb 1998 08:00:00 GMT

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Hello,

I have to read REAL numbers (6 byte) from a data field using IDL. My problem: In this field the order of the bytes of each real number is inverted, which means lowest byte first.

here is my solution which is working, but in my opinion to long

pro d

```
filename=DIALOG_Pickfile(/READ,FILTER='*.img',PATH='.')
;read header
openr, 1, filename
hed=bytarr(4048)
readu, 1, hed
close, 1
```

```
;copy height scale factor
rn = hed(3291:3296)
```

```
;get exponent
ex = double(rn(0) - 129)
ex = 2.0^ex
```

```
;get mantissa
k=5
val=0.0
for i=1,39 do begin
```

```
    b=ishft(128,-(i mod 8))
    c=rn(k) and b
```

```
    if c gt 0 then begin
        val = val + 0.5^i
    endif
```

```
    if (((i+1) mod 8) eq 0) then k=k-1
```

```
endfor
```

```
;get sign
```

```
v=1.0
c = rn(0) and 128
if c > 0 then v=-1.0
```

```
; put everything together -> Heightscalefactor
```

```
r = v * ex * (1.0 + val)
if rn(5) eq 0 then r = 0.0
```

```
*****
```

Is there somebody who knows a more sufficient way to read this REAL number?

Thanks

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