
Subject: Re: Double-Precision Byte Swap
Posted by [rkj](#) on Wed, 29 Apr 1998 07:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

R. Kyle Justice (rkj@dukebar.crml.uab.edu) wrote:
:: Assuming that the data are IEEE double-precision (almost certainly), yes, you
:: just need to reverse the order of each number's 8 bytes.
:: (But note that if it's Digital Unix that you're using then you should NOT
:: re-order.)

:: I don't use PV-Wave, but here's a little IDL routine for the job:
:: ;=====

```

:: ; Reverse the byte order of a whatever
:: pro bytere, v
::   j=size(v) & nj=n_elements(j) & t=j(nj-2) & n=j(nj-1)
::   if (t le 1) or (t ge 7) then return ;undefined, or inappropriate type
::   case t of
::     2:byteorder,v,/sswap ;short
::     3:byteorder,v,/lswap ;long
::     4:byteorder,v,/lswap ;float
::     5:begin &for i=0L,n-1L do v(i)=double(rotate(byte(v(i),0,8),2),0) &end ;double
::     6:byteorder,v,/lswap ;complex (it works, too!)
::   endcase
::   return
::   end
:: ;=====
```

:: Peter Mason

: Works like a charm! This ought to be in the user library.

: Thanks.

: Kyle

Actually, a similar routine (wbyteorder.pro) is indeed in the pv-wave user library. I guess I didn't look hard enough . . . but I still like the elegance of this solution.

Kyle
