Subject: Re: Double-Precision Byte Swap
Posted by rkj on Wed, 29 Apr 1998 07:00:00 GMT
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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 byterev,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