
Subject: Endianness (was Re: XSTRETCH and Library Lessons)

Posted by news.verizon.net on Mon, 24 Apr 2006 16:30:01 GMT

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> However, by using the /SWAP_IF_LITTLE_ENDIAN keyword to OPENR(W) this
> can all be done transparently, and this "on the fly" byteswapping can
> improve the speed by a factor of two for large arrays on my Linux box.

Well, it turns out that most of this speed advantage is due my use of
old keywords to BYTEORDER. when I was swapping bytes in I/O.
Apparently,

BYTEORDER, data, /LSWAP, /SWAP_IF_LITTLE

is exactly equivalent to

BYTEORDER, data, /FTOXDR

for floating point data except the former is at least twice as fast.

So I can get most of the speed advantage by updating the I/O routines
without worrying about introducing incompatibilities with old versions.

(I could also just use the V5.6 SWAP_ENDIAN_INPLACE function,
although I currently want to support versions V5.4 and later).

--Wayne
