

---

Subject: little and big endian -- once more  
Posted by [Martin Schultz](#) on Wed, 12 May 1999 07:00:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Hi all,

took me a while to realize that it is the machine architecture not the OS that determines the byte swapping -- in fact I needed to have IDL on linux (after using it on an SGI and with Windows) to figure that out ... Anyway, I now devised the following test for byte swapping which is applied in my open\_file routine and handles everything transparently. Please tell me if there are any other machine architectures that are big endian and what their !version.arch tag would be.

Thanks,  
Martin.

```
; Extra attention to binary (f77 type) files:  
; Set keywords for SWAP_IF_LITTLE_ENDIAN and SWAP_IF_BIG_ENDIAN  
; depending on operating system  
; do it only for read only opening
```

```
if not (keyword_set(write)) then begin  
  Swap_If_Big_Endian = (strucase(!version.arch) eq 'X86')  
  Swap_If_Little_Endian = 1 - Swap_If_Big_Endian  
endif
```

```
; debug uses little_endian function from Robert Mallozi  
print,'#DEBUG: little_endian = ',little_endian()  
help,Swap_If_Little_Endian,Swap_If_Big_Endian
```

--

```
|||||||\\\|-----//|  
Martin Schultz, DEAS, Harvard University, 29 Oxford St., Pierce 109,  
Cambridge, MA 02138 phone (617) 496 8318 fax (617) 495 4551  
e-mail mgs@io.harvard.edu web http://www-as/people/staff/mgs/
```

---