Subject: Re: N_TAGS(, /LENGTH) strange result!
Posted by mgs on Tue, 05 Jan 1999 08:00:00 GMT
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In article <01be38eb$bb18fe80$56040a0a@loliveira.ipimar.pt>, "Luis Oliveira" <eu_luis@hotmail.com> wrote:

> Hi all readers.
>
> My problem with N_TAGS(?,/LENGTH) is that it's result with some structures
> is diferent from the size of the files that That structures originate?!
> (Diferences of about 3 or 4 bytes.)
>
> I am using IDL to read some unformated data file that was written with a C
> program. The size calculated with the C structures was the same as the size
> of that structures in files. N_TAGS gives a diferent value, but when I
> write the same structure with IDL to a file, it's size is the same as the C
> structures!
>
> My IDL version is 5.11 in a windows95 PC.
>
> Thanks for any light on this subject...
>
> Luis
>
> PS: After some tests, I've seen that this happens with structures that have
> members that are structures... here goes an example:

I suspect you're running into problems with the number of bits in the processing architecture. Sorry, I don't know how to word the explanation decently. Basically, your 32-bit PC is probably adjusting part of your structure to sit on byte boundaries. I've seen similar things when dealing with PC's, Mac's (32-bit systems) and UNIX (32-bit and 64-bit systems).

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Posted by Luis Oliveira on Wed, 06 Jan 1999 08:00:00 GMT
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Thanks for any light on this subject...

Luis

PS: After some tests, I've seen that this happens with structures that have members that are structures... here goes an example:

```
IDL> x={a:0L,b:0,c:bytarr(5),d:0B,e:bytarr(3),g:{a:0B,b:0}}
IDL> print,n_tags(x,/length)
        20
IDL> x={a:0L,b:0,c:bytarr(5),d:0B,e:bytarr(3),g:{a:0B,b:0},f:0B}
IDL> print,n_tags(x,/length)
        24
```

This two structures only differ by one byte! The real length is 18 and 19. Now, if I write the structure to a file:

```
IDL> openw,1,'lixo.txt',/delete
IDL> writeu,1,x
IDL> print,(fstat(1)).size ;To return the size of the file
        19
IDL> close,1
```