Subject: Re: renaming a variable without making a copy
Posted by penteado on Fri, 11 Dec 2009 16:38:43 GMT
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On Dec 11, 11:22 am, alx <lecacheux.al...@wanadoo.fr> wrote:
> Look at the following:
>
> define some structure:
> IDL> a={n:1L,x:2.0}
>
> build its binary content as a byte chain:
> IDL> b=[byte(a.n,0,4),byte(a.x,0,4)]
> IDL> print,b
> 1 0 0 0 0 0 0 64
>
> define a void structure to get the result:
> IDL> aa={n:0L,x:0.0}
>
> then :
> IDL> reads,b,aa
> IDL> print,aa
> { 1 0.000000}
> does not provide the right result.

Good example. In case anybody is wondering why that happens, the reads is getting the first field of a from the string "1", and the second field from the string "0" (the string representations of the first and second elements of the byte array b).

To properly obtain aa from the bytes in b, it is necessary to know exactly how the fields are aligned, as David mentioned. Which in this particular case would be:

IDL> aa.n=long(b,0)
IDL> aa.x=float(b,4)
IDL> print,aa
{ 1 2.00000}

Somebody also talked about using (real) pointers in IDL. Ronn Kling's DLM book has a useful trick (by Nigel Wade), to use a memory copy to hold a pointer's value in an IDL byte array of the proper size.