Subject: C Alignment/IDL structures
Posted by joey on Wed, 16 Mar 2005 16:13:03 GMT
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Hi! I have an C library which I link into IDL using IDL_MakeStruct. The structure I link in with IDL is not a true C structure, but a dynamic structure I create on the fly depending on the data I wish to have within IDL.

It works quite well; however, one of the elements incorporated in my structure is another structure which I would like to add a double value.

When I add this double, my structure size seems to get the wrong size for IDL to handle so nothing will work when accessing the structure. I compute the size to a value which is the sum of all bytes in the structure which obviously does not take into account the packing/aligning that C does.

My question is: is there a way I can figure out how many bytes to malloc such that IDL and I will always be in agreement?

Even if we are in agreement, I need to know where the padding will occur so I would like to have the same algorithm that IDL uses to compute its structure allocation when given a list of tags.

If I stick to floats/long/int/etc/strings/etc. everything seems to work great. Its only when adding the double that everything goes bad.

Thanks for any advice!

Joey