
Subject: Re: C Alignment/IDL structures

Posted by [joey](#) on Wed, 23 Mar 2005 16:20:11 GMT

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Nigel Wade <nmw@ion.le.ac.uk> wrote:

```
>>
>> // Copy the real data
>>
>> unsigned long pos = 0;
>> unsigned char *myStructureThatLooksLikeTags = malloc
> (_totalSpaceNeeded
>>                                * _dataIDL.size
> ());
>> for (unsigned int i = 0; i < _dataIDL.size (); i++) {
>> memcpy (&(myStructureThatLooksLikeTags [pos]), _dataIDL [i],
>>         _totalSpaceNeeded);
>> pos += _totalSpaceNeeded;
>> }
>>
```

> In your code you copy memory from two dissimilar data structures using
> memcpy() taking no account of alignment. Your memory allocation uses the
> construct _dataIDL.size(), what is that? Since you haven't shown us the

_dataIDL is actually a C++ vector of unsigned char *'s. This group of char * is created from a C++ map of data. The map is a tagname and data value. Complex, isn't it? I'd like to think its elegant since I can very simply wrap any C/C++ and interface it with IDL. However, if one of the items in the map is a structure itself, I think it has problem.

Randall: I got your code and I am going to look at it. I appreciate the example! I am going to try throwing a structure with a double in there and see if I can generate the same problem I am seeing on my code.

Cheers,
Joey
