
Subject: Re: Importing data from C/C++ to IDL when type is only known at runtime
Posted by [Nigel Wade](#) on Tue, 02 May 2006 08:33:37 GMT

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kathryn.ksm@gmail.com wrote:

> Hi Nigel,
>
> Thanks so much for taking the time to respond to my post and suggest a
> solution. I have started playing around with what you suggest and it
> looks promising, although a bit unpleasant and error-prone, as you say.
> Thanks for clarifying how the IDL_ImportArray function works. It
> would have taken me much longer to figure all of this out on my own!
>

Getting external data into IDL can be a minefield. Probably the two worst things to get right are dynamic arrays of structures and arrays within structures.

The mapping of an IDL structure to a C structure is fairly trivial, provided you know what you are doing. You need to be sure you understand the internal padding in the structures, and be aware that the code may well not work on a different platform. For dynamic structures the same mapping can always be achieved with pointers, but this is even more error prone, and a lot more care has to be taken with padding as you have to do this every time, during execution, rather than just once in the design.

The documentation in the IDL External Ref Guide is pretty comprehensive, but the relevant details you need are not always easy to find. It can be quite "chatty" at times, and vital pieces of information are often hidden away in the middle of sentences buried in a discussion of some esoteric flag. It pays to read the section on IDL types and variables in it's entirety, several times, to make sure you've found all there is in there.

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