Subject: Re: variable types in external C modules
Posted by Craig Markwardt on Tue, 31 Oct 2000 15:54:22 GMT
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"D. Mattes" <dmattes@u.washington.edu> writes:

> hello IDL gurus:
>
> i am using call_external to run computations in external C modules. i
> want to send arrays of different types to the C module and have them be
> correctly declared in the C module. for example, if the IDL procedure
> sends floats, then the C module needs to declare the incoming arguments as
> floats, and be able to create some scratch memory of type float.
> however, if the IDL procedure sends doubles, then the C module needs to
> declare the variables as doubles. how can i determine the variable types
> of the input arguments from within the C module?

I think it is common practice to write a "wrapper" routine in IDL.
The wrapper routine would perform all of the common error checking,
and cast variables to the correct data type. Then the wrapper would
call the external C function.

Extensive error checking can be performed, but I believe you need to
use the more sophisticated LINK_IMAGE mechanism. In that case all
data is passed with their data types intact. The IDL environment does
provide some facilities for error checking (see the External
Development Guide), but it is tedious. As it turns out, the error
checking is most easily performed in the IDL language, ie, in the
wrapper.

Craig

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