Subject: Re: Object based/oriented IDL ? Ever likely ?
Posted by ROsborn on Tue, 19 Mar 1996 08:00:00 GMT
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In article <julien.827283540@marsh>, julien@cs.curtin.edu.au (Julien Flack) wrote:

> I am very impressed with a number of features of IDL. However, I think
> that its lacking support for structure (primarily data structures) due to
> its historical affiliation with Fortran (no flames please). This weakness
> becomes noticable when you reach a 3,000+ line application (IMHO).
>
> I think that a version of IDL using object based/oriented technology would
> be immensely powerful and would reach a far wider audience. Is there a
> desire for OO technology in the scientific community, or is Fortran still
> predominant ? Have RSI made any moves in this direction ?
>

I'm amused that you've posted this question, because I posted an identical question only a couple of weeks ago. I got a couple of responses, mostly stating that IDL was flexible enough to cope with any programming needs, and expressing some scepticism of the need for OO concepts. Otherwise, the thread sank like a trace.

Just in case it does spark some interest this time, I'll briefly repeat my reason for raising the issue. The concern I have with IDL is that I deal with composite data objects, or spectra, comprising several arrays (usually x, y and error arrays with axis labels, various attributes etc.). When I combine different spectra e.g. in subtracting a background run, I have a considerable amount of book-keeping to do, such as checking that the x-arrays are compatible, passing the labels across, propagating the errors etc. If IDL incorporated some OO features, it would be possible to define a spectrum class so that I could overload the arithmetic operators and hide this book-keeping from my interactive session, making my online analyses much more productive IMHO.

You have raised another equally valid issue, that of simplifying large IDL programs. One of the responses to my posting drew my attention to a suite of IDL procedures developed at the Institut Laue Langevin, Grenoble, called LAMP, which attempts to treat multi-dimensional spectra in the way I wanted. Strangely enough, it was this suite which made me concerned about the limitations of IDL in the first place. It is a very impressive achievement, and contains some very nice features, but it has required well over 10000 lines of code, many of which I am sure would be unnecessary if IDL contained some OO concepts. I think that it would also be a lot easier to maintain.

I also would be interested if RSI has any intention of moving in this direction.

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