Subject: Object Models for Data?
Posted by Struan Gray on Tue, 30 Sep 1997 07:00:00 GMT
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I'm about to start converting my main application to an object-oriented version and intend to start by objectifying my data models. Naturally I have lots of lovely low-level ideas, but because I eventually want to write widgets which can browse, display and manipulate any of my data sets, no matter where or on what machine they were aquired, I want an overall data model that is robust and flexible enough to cope with most things that I might want to throw at it in future.

The obvious route is to objectify the HDF routines, since they provide a standard way of describing data sets with lots of different components, and it is easy to see how an HDF file on disk can be converted into some sort of container object in memory. A basic set of methods for describing, adding and extracting the object's data can also be stolen from the HDF file routines.

My only problem (at least, in this respect ;-) is that I have a strong suspicion that I am re-inventing the wheel, and that more intelligent lifeforms have probably already developed a suitable model. I have had a cursory delve into the NCSA HDF documentation and website(s) but although the whole thing reeks of object orientation, the end result for the user of the HDF libraries seems to be boring old arrays and variables: ie the data stops being an object once it leaves the disk.

Hence an appeal to the newsgroup: does anyone know of any freely available projects or standards for the description and manipulation of scientific data *in memory*? Would anyone be interested in trying to put together a general object model for data in IDL applications that could be used as a basis for shared code? My own feeling is that a standardised data object would make it much, much simpler for IDL (and PV-WAVE) users to share widget applications with each other, as well as making it easier to do hip things like interface applications to the web.

Ideas? All bouquets and brickbats gratefully received.

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