Subject: Re: IDL --> C++ ?
Posted by Justin[2] on Thu, 24 Oct 2002 22:42:40 GMT
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Robert,

I think this might be a near impossible task for you unless you amass an army to help, or unless you plan to implement only the most basic implimentation.

Start with plotting. How do you plan to produce plots in C++ that will work across different platforms? Even if you just implemented the screen devices ('Win', 'X', 'MAC') and the 'PS' device, there would be hell of a lot of coding needed to create a plot that looks the same as an IDL plot. If you're considering things like widgets and pointers and object graphics too... well I think it would be tough.

Also if you plan to do a 'simple' translation (i.e. IDL:"a=1" to C++:"a=1;") without complicated run-time handling of variables, how will you handle variable type (C++ is strongly typed, IDL weakly typed)? For instance, in IDL you could happily write:
a = '123'
a = FLOAT(a)

and 'a' will change from string to float as needed. A simple translation of this would fail in C++ since a variable cannot change type at run-time. Similarly what about run-time creation of structures (CREATE_STRUCT), for instance, or calling of statements created at run-time (EXECUTE)? I think this list is endless...

Now this wouldn't be impossible (I guess IDL is written in C) but I think it would be mighty hard. I don't think a translator is viable, and to write an interpreter would be duplicating RSI's effort!

Regards,

Justin