Subject: Re: Compiling IDL ... ever likey?
Posted by Ken Knighton on Thu, 25 Jan 1996 08:00:00 GMT
View Forum Message <> Reply to Message

Rick White <rlw@stsci.edu> wrote:

> ...
> Java does not have built-in vector/array operations, and you're right:
> that is (IMHO) both the reason why a Java compiler is needed and the
> reason why 90% of (well written) IDL programs would not benefit from
> such a compiler.
> ...
> I found that almost all my applications (mainly image processing) are
> as fast in IDL as they would be in C (though they can be developed
> many times faster in IDL.)
> ...
> There are, though, a small number of operations that cannot be
> implemented efficiently in IDL, and it would be nice to have an
> IDL compiler for those cases.

Would it be possible to add a few functions/procedures/syntax features
to IDL and cover 99+ percent? Perhaps this would be a better use of
RSI's resources. Don't get me wrong, I am not opposed to the idea, I
just wonder if it would be cost effective.

> Calling external C programs from IDL
> is a big pain...

I haven't found it to be so difficult. Caveat: HPUX

> and is hard to make portable.

Yes.

Peter Clinch (writing in another article) had a good idea that would
address many of these problems:

"However, IDL x.0 of the future could itself be written in Java
(rather than C and/or Fortran) and exist in more modular form with
functionality downloaded over a network as required."

This would theoretically enable Web applets to be written in IDL and
would make real good use of the large quantity of resources that are
being expended to make Java a better language system. In addition, this
would free RSI up from having to support native code on various
platforms and make IDL instantly available on any platform that
supported Java. Of course, the optimized array operations and other
functions would then run s..l..o..w..e..r unless Java to native

compile-on-the-fly systems were actually developed and worked well.

> Sorry, when I became an astronomer I had to swear that I would never make
> any money! :-)

Sounds cultish. :-)

Ken Knighton   knighton@gav.gat.com knighton@cts.com
General Atomics
San Diego, CA